



The Entrepreneurship, Commercialisation and Innovation Centre

Exploring the forces shaping the modern university – the existential challenges of thought leaders managing the foundational values with the functional drivers – a case study of South Australia

For the award of Doctor of Philosophy

Thesis submitted by

Kym Teh

May, 2021

Thesis supervisors:

Dr Barry Elsey, Professor Noel Lindsay and Professor Michael Liebelt

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act, 1968.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through the web search engines, unless permission has been granted by the University to restrict access for a period of time.

I acknowledge the support I have received for my research through the provision of an Australian Research Training Program Scholarship.

For my beloved wife, Dr Susan Errington, for her everlasting faith and support.

Acknowledgements

The PhD journey is a long journey and can be a lonely one. Mine has been a particularly long one but not a lonely one. I have been very well supported along the way, and found many friends.

This journey would not have been at all possible without the support of so many people. I particularly owe my gratitude to my principal supervisor, Dr Barry Elsey. He has been my supervisor, mentor and friend - always willing to share his wisdom and knowledge, engaging – always with a generosity of spirit and empathy. I have learned so much from Barry, both about my own research, his experiences and how to apply my own experiences. Barry has helped me to find solutions throughout this exploration – a problem never remained a problem for very long.

Professor Noel Lindsay and Professor Michael Liebelt have also provided unstinting support to me and my research, throughout the ebbs and flows of my efforts. They too have been calm and thoughtful – making themselves available to me and giving so freely of their time and ideas.

Barry, Noel and Mike have shared my persistence in completing my research – they have all been kind and generous, especially during my period of poor health. I am thankful for their consideration and kindness especially during this time.

In addition, I thank Professor Annette Braunack-Mayer (former Head of the School of Public Health), my former manager. Annette created capacity for me in the workplace to pursue my passion for this research, supporting me in all sorts of ways (including auditing courses on qualitative research methods, and providing guidance on the ethics process).

I am thankful to the many leaders of the South Australian universities (The University of Adelaide, Flinders University, and the University of South of Australia), all of whom provided their candid perspectives on universities and university leadership for this research.

My special gratitude goes to my family, especially my wife, Susan, and my son, Fergus (who is embarking on his own higher education journey), for their unstinting support and even temperament while I have tackled the ups and downs of fulltime employment and part-time candidature. Susan was happy to share her own PhD experiences, which were invaluable. (I appreciated the calming influence of my constant fur companions, our dogs Sam and Tasha, during the writing of the thesis.) I thank my late parents, Peng Heng and Patricia Robin K. S. Teh for imbuing in me with a sense of the value of education and learning.

Exploring the forces shaping the modern university – the existential challenges of thought leaders managing the foundational values with the functional drivers – a case study of South Australia

This research explores the university across its various elements and dimensions across time but in particular against a context of the modern university – as Scott (1984) poignantly states, the university is the key knowledge institution of modern society. This exploration particularly focusses on the character and nature of the modern university (its ‘idea’ or notion), the drivers of change, the forces, and the enabling responses and reactions to them by universities. The research is conducted through the lens, perspectives of the university leaders of the three South Australian public universities – leaders who understand the nature of the university, its present, and are charged with influencing its future. Their universities are representative of the Australian higher education system. Through this phenomenological study an understanding is developed of the complex interactions between these dimensions (foundations, forces of change, and enabling reactions to change), the actions and strategies that have been evolved by university leaders to achieve balance and seeking equilibrium between these competing forces – the research surfaces a range of emerging underlying models that begin to draw together these practices and strategies. This research underscores the complexity of the university: its complex mission (its foundations), diverse stakeholders, and the ever changing forces for change. Amongst the tensions, our university leaders constantly grapple with a range of questions: including whether the university is a knowledge institution for society or a business? – always seeking to balance academic, and financial viability and sustainability.

Declaration	
Acknowledgements	i
Abstract	ii
Contents	iii
List of Figures and Tables	vi
Overview	1
I. University- the key knowledge institution	1
II. Emerging themes	2
III. A foundation-functional framework – an approach to analysis	4
IV. The case study – South Australian universities	4
V. Thought leaders – lived perspectives	5
VI. Concepts and models	5
Chapter 1 Foundations and the change imperative	10
1.1 Preface	10
1.2 Introduction and background	11
1.3 Research purpose	13
1.4 Case studies and research questions	14
1.5 Significance of the Study and Research	19
1.6 Structure of the thesis	23
1.7 Summary	25
Chapter 2 Review of literature and sources	26
2.1 Introduction	26
2.1.1 Interpretation	28
2.2 Foundations of the university, defining the concept or ‘idea’ of the university	28
2.2.1 Medieval University	28
2.2.2 Newman	29
2.2.3 Humboldt and the Humboldtian University	33
2.3 Forces and drivers of change	35
2.3.1 Government Policy	35
2.3.2 The ‘economic’ policies	40
2.3.3 Workforce demand	41
2.3.4 Increasing stakeholders and expanding accountability	42
2.3.5 ‘Massification’ of higher education	44
2.4 Responses to drivers of change	45
2.4.1 Competition – market	45
2.5 New and emerging types of university	46
2.5.1 Enterprise University	46

2.5.2	Entrepreneurial University	48
2.5.3	Corporate University	51
2.6	Significant types of responses and reactions	54
2.6.1	Entrepreneurial	54
2.6.2	Academic Entrepreneurship	57
2.6.3	The Adaptive Organisation	59
2.6.4	Internationalisation – students	60
2.7	Development of the higher education environment and systems	61
2.8	Summary	64
Chapter 3 Research Methodology and Method		68
3.1	Introduction	68
3.2	The Research Paradigm	70
3.3	Methodology	73
3.4	Primary Method – Thematic Analysis	76
3.4.1	Description	76
3.4.2	A justification	78
3.4.3	Process and phases	79
3.5	Data Collection	81
3.5.1	Interviews	81
3.5.2	Selection of sites	82
3.5.3	Participant selection (sampling)	82
3.6	Research Ethics	90
3.7	Summary	90
Chapter 4 Analysis and Discussion		92
4.1	Introduction	92
4.2	Foundations	94
4.2.1	The core	94
4.2.2	Knowledge actions	96
4.2.3	Purpose and context	97
4.2.4	Dimensions and layers	99
4.2.5	Independence	102
4.3	The University and other knowledge organisations	108
4.4	The higher education environment	111
4.5	Drivers of change – the Forces	114
4.5.1	Drivers – the layers – ‘mosaic’	115
4.5.2	Policy – financial and economic	117
4.5.3	Policy – ‘standards’ and other policy directions	120

4.5.4	Convergence of Policy	122
4.5.5	Policy – higher education system and structure	123
4.5.6	Internationalisation – the driver of change	125
4.5.7	Technology – the global university market	125
4.5.8	The Student – expectations and policy forces	126
4.6	Responses – enabling change	127
4.6.1	Internationalisation – growing student enrolments	127
4.6.2	Technology – an enabler of teaching	131
4.6.3	The Student – responding to expectations and Government	133
4.7	The university as a ‘business’	136
4.7.1	Innovation and entrepreneurship	141
4.7.2	Commercialisation	142
4.8	Balance – achieving an equilibrium	145
4.8.1	The foundational and functional (or operational) dimensions of the university	146
4.8.2	Academic and business conflict - for-profit imperatives	147
4.8.3	Strategies – complexity and cross-subsidies	150
4.8.4	Diverse stakeholders – complex organisational change	152
4.8.5	Governance	154
4.9	Emerging concepts, frameworks and models	158
4.9.1	Portfolio management and research translation	158
4.9.2	Commercial-academic equilibrium	159
4.9.3	Entrepreneurship – the academic unit	160
4.9.4	Governance and the Enterprise	161
4.9.5	Internal subsidisation – cross-subsidies	161
4.10	Summary	164
Chapter 5	Conclusion	166
5.1	Overview of the research	167
5.2	The evolving research questions	169
5.3	Knowledge contribution	174
5.4	Limitations	177
5.5	Future research directions	178
	Postscript	180
	References	183
	Appendix A – thematically focussed coding	195
	Appendix B – emergent coding	240

Figures

1.	Foundational and Functional dimensions of the university	15
2.	Themes: feedback loops between responses to change drivers and university foundations	24
3.	Prince & Beaver (2001) The key processes of a world-class corporate university	53
4.	Sporn (1999): Framework for adaptation in higher education	59
5.	Macro view: example, dependencies between drivers and responses to change	65
6.	Indicative 'map': literature source domains and areas	66
7.	Carter & Little (2007): The Simple Relationship between Epistemology, Methodology and Method	69
8.	Crotty (1998): Model of research elements	70
9.	Khan (2014); Sale, Lohfeld & Brazil (2002): Consolidation of paradigm elements: Positivism and Interpretivism	72
10.	Starks & Trinidad (2007): Aspects of phenomenology	74
11.	Crotty (1998): Model of research element, including elements for this research	80
12.	An indicative feedback loop between university 'foundations' and university change responses	81
13.	Analysis: indicative relationships between sections	94
14.	The core: knowledge layers	102
15.	Independence: forms	107
16.	A continuum of differentiation: Australian universities	114
17.	University portfolio management	158
18.	Research 'translation'	159
19.	University governance: academic-operational/transactional	162
20.	Example: university cross-subsidisation model	163
21.	A 'map': drivers of change (forces) and enabling responses, reactions	165 174
22.	Feedback loops between the research question domains	176

Tables

1.	Raciti (2010); Marginson & Considine (2000): Categories of Australian public universities	18
2.	Alignment of literature source areas and research questions	27
3.	Sporn (1999): Towards a theory of adaptation – critical factors and propositions for Adaptive Universities	60
4.	Braun & Clarke (2006): Phases of thematic analysis	79
5.	International Student Income, Australian public universities, 2019 Source: Department of Education, Skills and Employment (Australian Government)	128
6.	Student enrolments of South Australian universities, 2017-2019. Source: Department of Education, Skills and Employment (Australian Government) [uCube - Higher Education Statistics, 16 Dec. 2020, 10.50 am]	129

The purpose of this overview is to provide a high level roadmap to guide the reader through this research and its core elements in particular.

I. University – the key knowledge institution

This research explores the university through its various elements and dimensions across time but in particular against a context of the modern university – as Scott (1984) poignantly states, the university is the *key knowledge institution of modern society*. Key to this research is an exploration of the ‘idea’, notion or concept of the university and the actuality of the university, as perceived and experienced by modern university leaders, university thought leaders – those leaders who understand the past, and can influence the future of universities. Whilst we examine the broad sweep of many literature sources through history, this research provides a particular focus on the lived experiences of university leaders within the Australian higher education environment or system. It can be specifically argued that this environment became more closely definable as a system from the 1980s onward, a period of transformational change through the landmark policy interventions of the Dawkins Review (1988) and the resulting institutional (and market) responses that followed – with the national government setting a range of boundaries and parameters for the sector. In addition to the key perspectives of these university thought leaders, the researcher brings his own lens to this research as a full-time university professional staff member of many years of experience. He has been a university business manager, and university industry adviser, with experience of all three of the universities that are the subject of this case study – the three South Australian public universities. These three universities are significantly representative of the categories of universities that comprise the university components of the contemporary higher education system in Australia.

II. Emerging themes

The literature sources that underpin this research and to a large extent have been formative in guiding the key research questions, span many fields and in fact types of literature sources, including contemporary sources that have become relevant to the ongoing discourse and commentary concerning the development and of the ever changing role of the university. These sources can be traced back to the earliest conceptions of the university the 'studia' and the Middle Ages, to the analytical works of modern 'think tanks' and highlighting the recent economic imperatives, government policy reviews and the consulting outputs from the management consulting firms concerning universities and the university industry. This research traverses diverse fields of interest in its exploration of the nature of the university and in developing an understanding of the complex environments in which the university has had to respond, the forces of change – at times often challenging the essential character of the university. Thus raising many questions about the real origins of the university, the idea and the reality, have the forces of change altered the character of the university for future generations, or have universities successfully sought to balance and 'stretch' as and when demanded to. This research is not a static review of the historical literature resources. Importantly this discovery introduces the perspectives of current university thought leaders. It is also through the lens of these leaders that this research offers indicators of some of the key concepts and models that describe the richness and complexity of the university, and how universities perceive their nature, challenges and models for recognising the sensitive, dynamic balance between the values of the university and successfully responding to change.

While embarking on this inquiry, with the guidance of leading researchers and commentators, and through the lived experiences of current university thought leaders, the core research question is explored:

How have modern universities sustained their foundational values while effectively responding to the core drivers for change?

In addressing this overarching question, we start to build a layered picture of the elements, or even a mosaic, comprising the foundations of the university, taking in Medieval universities, Newman's 'idea' and the five cornerstones of Humboldt's conception of the 'unity', with contemporary perspectives such as those of Collini (2012) – being characterised by training and the early guilds, a concept of the liberal university, of 'universal knowledge' (or knowledge for its own sake), scholarship, and amongst other elements the 'unity' of research and education, and more recently, being delimited from other institutions and organisations by its connection to society, framed in the context of public good, benefit. These important sources share a common core, albeit with differing nuances at times – knowledge. How does this compare (or contrast) with the perspectives of current university thought leaders? – that question is central to this research. What matters and influences have driven change in our universities? Researchers and commentators alike have presented a rich and extensive list of some of these drivers: government policy (including amalgamations), funding, resources, market forces and the customer, globalisation, employment demand (and the demand for specific skills), technology, corporatisation, competition (between universities and with non-universities), stakeholder forces (including industry) – which of these are mere responses and which are true drivers of change? This is indeed complex. As has been discovered through this research, there is complexity – there are not necessarily one-to-one relationships and dependencies connecting each driver to university responses and actions. A core driver can result in a plethora of responses or activities on the part of a university - not being limited to a single response, individual action for each driving force or change driver.

In their seminal writings researchers have indicated that change can be so significant as to have led to the evolution, development of new forms of universities with their own type names: for example, the enterprise university, the entrepreneurial university, corporate university, and this includes types of behaviour (such as academic entrepreneurship) amongst these. This research unbundles them so that

we can better understand the drivers that may have led to them being conceived. It is also worthwhile to consider the body of research by Sporn (2001) concerning universities as 'adaptive organisations' – this raises the possible thesis that perhaps all of these things might be grouped under the rubric of adaptations on the part of universities, a range of separate responses to adapt.

III. A foundational-functional framework – an approach to analysis

Throughout this research and the associated analyses of the key sources and the actual research data (the 'lived' experiences), a number of frameworks are distilled to assist us in making sense of the themes arising out of the data (and even the research sources), and how they might be reconciled or connected. From Scott's (1984) construction of the liberal university and his framework, delineating the elements of the university into the philosophical and the functional, it is a reasonable induction to suggest a framework that is not dissimilar: examining the elements of the university in terms of a foundational-functional framework – the foundation being the elements that define the university, making it distinct from other organisations – in contrast to the other features of the university. This framework has itself evolved throughout the conduct of this research - something may not necessarily fall into the foundation or the functional. There may be 'shades' in terms of where a characteristic or feature might sit. This shading starts to anticipate some of the 'models' and representations of the university that are later indicated by this research.

IV. The case study – South Australian universities

This research focuses on the three South Australian public universities – The University of Adelaide, Flinders University and the University of South Australia. Within the Australian higher education 'system' these universities are substantially representative of the universities that comprise that system. It is also practical for the purpose of this doctoral research to provide some limits, while noting these universities are indeed representative of perhaps many if not most Australian universities according to some categorisations (Marginson & Considine, 2000; Raciti, 2010).

V. Thought leaders – lived perspectives

Amongst its key contributions, this research brings together the perspectives and ‘lived’ experiences of current university thought leaders with the conceptions and ideas of the university distilled from seminal research works and a range of historical perspectives. In addition, having spent many years working for and with universities as a senior business manager, industry stakeholder, and adjunct academic, and of course, student, having read across many fields, the researcher gazes into the university through a particular lens to inform this research. The thought leaders are senior members of each of the subject universities who have been identified and selected on the basis of their responsibilities and therefore, their ability to understand the university, and shape and direct the future of the university. This has included Vice Chancellors, Deputy Vice Chancellors, Executive Deans, Pro Vice Chancellors, Deans, Managing Directors (academic) of research centres, and senior business managers, across a range of faculties, units and disciplines. They provided wide-ranging views on the issue of what is a university (typically through their view of the defining characteristics of the university, and by contrast with other organisations, including other knowledge organisations), and what of change, transformational change.

VI. Concepts and models

Unlike the many commentators, most university thought leaders tended to not see the university as being its individual, discrete elements but the collective of all of those elements. There were however certain elements or characteristics that might be unlikely to be a feature of other, non-university organisations. Similarly, the current university thought leaders tended to not deconstruct the concept of the university – not separating the university into a Newman or Humboldt conception, or other view of the university. That is, most of them tended to take a view equivalent to the university being the full “gamut of these things”. Quite consistently the modern university has at its core knowledge, with various nuanced perspectives on the nature of that knowledge, with that core often being framed in the context of public good, public benefit or the impact on society. That is not to say that amongst the

concepts that were discussed, there was not some discourse about the place of basic or fundamental research as a cornerstone of the university. Notably a number of leaders resolved this through a number of important approaches. These included research ranging from fundamental research to applied research but the two not being mutually exclusive – with a key role of the university translating its fundamental research so that it has a use, an application. Others stated that major benefits and ‘paradigm shifts’ arose out of fundamental research, and its translation. Others did draw a clear distinction but it did seem that there was a demarcation line on this depending on the category and relative age of the university from which the leader came. Other characteristics and important concepts that were identified and discussed, included the not-for-profit nature of the university (but this did not preclude for-profit activity); academic freedom, independence; public good, benefit; society; ethical behaviour; educating (rather than training alone), scholarship – but central to the university is knowledge. The discussions provided many views and nuances and further developed these terms and concepts, often by specific example.

As for differences between universities, there was a sense that, particularly in Australia, universities were quite homogenous, and that this had particularly become so following the implementation of the Dawkins Review (1988) recommendations, which amongst other things, gave concrete form and uniformity to the Australian higher education system. Where there are differences it might be described as a continuum of differences. For example, perhaps one dimension of those differences is the degree to which a university is research-intensive – some leaders suggested that if we normalised all universities for age, then this too would appear to be more homogenous.

In relation to responses to change, these provided a diverse range of responses. In common and broadly speaking, internationalisation (especially including the rapid growth in international student enrolments) and the conduct of universities becoming more business-like, entrepreneurial, or there being an increased ‘corporatisation’ of universities. These matters too seemed to be something that could sensibly be represented as a continuum – the propensity to be business-like or function as a

business, or be entrepreneurial. This is perhaps another dimension. (Interestingly, it was suggested that the further up one moves through the organisational structure, the less likely it is that entrepreneurial activity will be observed – senior management is, amongst other things, more risk averse, and a dampener on entrepreneurial activity.) There was some blurring as to which of these are drivers or responses, or both. Having identified a plethora of drivers and responses to them, there were one or two drivers that appeared to be core: government policy and particularly its impact on funding and resources – the majority of responsive actions could in some way be traced back to them.

Through the identification of themes (in the sources and data), and the core themes and concepts, and their linkages, we start to see a number of models (and representations of specific strategies) emerging.

Taking us back to our foundational-functional framework, we can start to see a tension between a number of the elements that fall under each, or both parts of this framework, possibly represented as two overlapping circles that intersect, a Venn diagram. In the intersection are the matters that significantly affect both parts of this framework. For example, the imperative to engage in more commercially contracted research might shift the balance towards more applied research and less fundamental research (or none). This might even change the character of the university or its foundations – this does not necessarily deny the earlier proposition that ‘translation’ of fundamental research is integral to a university but it has been suggested that that is a longer term action, and funding imperatives are often short run actions. More broadly the dimension, continuum of the extent of the business-like propensity of a university is another dimension that can be represented visually as separate axes (on a graph) describing the university. Other models give rise to visual representations in the form of ‘feedback’ loop models (Sterman & Morecroft, 1994; Sterman, 2000), which show the linkages between these elements whether they are reinforcing or having a negative effect – foundations, drivers, responses. It is perhaps more accurate to describe the university as a collective of

sub-models, which can be represented in different ways, or as axes on an overarching model, with the points indicating the points of tension and resolution.

Significantly, a number of our subject university thought leaders have observed and shaped their organisations and units by applying an alternative model quite dynamically, applying it to each core decision made by them. Once again they do not view their organisation as its individual and discrete activities, but as an overall 'portfolio' – meaning that not every part of their operations needs to achieve a so-called 'balance' as long as there is a balance achieved across the area as a whole. This could be represented as a single axis, with the points along it over and under representing its discrete activities and showing the overall position of the unit being one of a balanced position. For example, this can be represented as a column graph indicating a number points with positive and negative positions, but with a net total showing an even or positive balance.

An alternative model described by the leaders, which is complementary with the other models, draws a key distinction between aspects of the university that comprise its mission or focus, and those things that are enabling or supporting. That is the responses to the change drivers are not in conflict on the proviso that they are enabling of the universities mission, or support its focus (being the foundational elements of the university).

As described above, with the clarity provided by the university thought leaders interviewed it is possible to a large extent to resolve the tensions between the necessary responses to change and the essential character of the university. The university can be described as being largely made up of a number of complementary models, which have been developed (often informally) by its leaders, to sustain the university and maintain this 'balance'. However, having said that, it is clear that there are some core or dominant forces. Will there come a point where universities will reach a 'tipping point' (Gladwell, 2006) and it is no longer possible to sustain this balance, and the essential character of the university will be materially changed? (This research was conducted prior to the Covid-19 pandemic – arguably the

pandemic and its effects have brought this into even sharper relief.) This is an endeavour for future research, and to explore whether universities existing in other environments and 'systems' are subject to and affected in the same way by these forces.

Chapter 1

Foundations and the change imperative

1.1 Preface

As for my own motivation for pursuing this research, there is no single event that piqued my interest in universities. That interest has been shaped over a protracted period by my own studies, across many fields, and my working life and employment, which have touched universities in many ways. My studies and periods of learning have spanned some four decades: reading law, computer science, economics, and a cluster of disciplines as components of graduate studies in science and technology commercialisation. The fact that I could study within the one institution and in some cases the one degree, across so many diverse fields, helped to build my interest in this multi-faceted learning institution known as the 'university'. To some extent, almost in parallel, my professional experiences continued to provide a rich source of varied engagement with universities – these encounters have especially drawn my interest – universities touch society, the community and industry in so many different ways, and to many are seen as emerging drivers of economies (as sources of knowledge and expertise, and as providing export products in their own right). My own experiences of universities have been diverse, indeed. This has led me to now explore what are the dimensions of the university, or even the idea or concept of the university – what makes it unique? My experiences have importantly provided me with a sense of some of these dimensions: as an intellectual property lawyer advising universities and those who deal with universities, an executive of a multi-national corporation (in information technology) being responsible for its university partnering programs, as a government adviser (in science, technology and innovation) supporting universities to strengthen the university-industry-government nexus, holding adjunct academic posts in law, and computer and information science, and as an industry advisory board member to universities (advising on IT, commercialisation, and business fields of education). As well as exploring the dimensions of the university from the perspectives of university thought leaders (interviewed through this research), and documented

academic sources, I bring my lived experiences as a university manager – having been an academic registrar providing program leadership in learning and teaching, academic division manager and faculty general manager providing operational, or perhaps, a ‘functional’ overview of the universities and particularly the university perspectives of this research, and being a university business manager, being an agent at the intersection of the foundational and functional boundaries of the university. Somewhat poignantly, in my first university role as an Academic Registrar, I was charged with leading a workshop of Deans and Heads of School, on behalf of the Executive Dean (the academic leader of the faculty) to assess and seek to improve the faculty’s Master’s degrees in Engineering. One third of the students at that time in 2005, were from abroad, international students. When asking the Executive Dean what key matters he would like us to bear in mind, he responded: ensure that the programs are both academically and financially viable. Unknown to me at that time, this would be somewhat prescient, even anticipating the future challenges, challenges that we will see are evidenced through this research: internationalisation; increasing business pressures – competition in the higher education ‘market’, and seeking to balance all of this with the unique values of the university.

1.2 Introduction and background

Universities are amongst the oldest knowledge and learning institutions. The history of the university and its antecedents can be traced back to the medieval university, during the Middle Ages, being a direct descendant of the medieval *studia* (Wieruszowski, 1966). Rather than being taken for granted as are their modern successors to varying degrees, they were ‘treated by Church and State as treasures, sources of pride, objects of general beneficence.’ (Wieruszowski, 1966) However, some have referred to the university as the *key knowledge institution of modern society* (Scott, 1984), whilst other studies have emphasised the role of universities as a source of labour and particular skills for industry, being integral to ‘innovation systems’ (Teh & Roos, 2015), and directly contributing to Gross Domestic Product in the form of exports (Universities Australia, KPMG 2009). Bara (2015) particularly notes that in the case of ‘university education’ there has been considerable change: “[I]n short, it appears to have

adapted to the prevailing circumstances and it is even proving to be an essential resource in the optimization of professional, social, cultural, and economic concerns” – Bara is not alone in highlighting these and other influences affecting universities, which will be later discussed and explored in the research findings.

Notwithstanding the university’s long history tracing back to medieval times, Scott’s and others modern university it might be contended has its origins leading back to the contributions of Newman and Humboldt (which will be discussed in some detail later in this study) – these contributions are not without some recent limitations being stated or the significance of these contributions being the subject of some debate (Collini, 2012; Connell, 2019).

In general, Newman’s (1852) description of the ‘liberal education’ (which is a cornerstone of his ‘idea of a university’) is perhaps best captured in Newman’s own words:

“... make not the Christian, not the Catholic, but the gentleman. It is well to be a gentleman, it is well to have a cultivated intellect, a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in the conduct of life; - these are the connatural qualities of a large knowledge; they are the objects of a University; I am advocating, I shall illustrate and insist upon them; but still, I repeat, they are no guarantee for sanctity or even for conscientiousness, they may attach to the man of the world, to the profligate, to the heartless ...

A University, I shall lay down, by its very name professes to teach universal knowledge ...”

Newman (1852) strongly asserts that the role of a university is the education of the intellect or the diffusion of knowledge, also describing this as being the “direct scope of a University”, or that a University’s “end is knowledge”. In relation to knowledge he is very specific, he means what he refers to as that ‘form of Universal Knowledge’ which is the ‘perfection’ of ‘the individual intellect’ (ibid., pp. 122-123).

In relation to Humboldt, Nybom (2003) notes that the Humboldtian university concept “rested on five cornerstones ... :

1. The unity of research and education/teaching.
2. The holistic nature of knowledge – *New Humanism*.
3. The primacy of research – that is, and education ‘infested’ and controlled by research.
4. A national culture dominated and distinguished by higher learning – *Bildung*.
5. The promotion of the higher learning, science and ‘*Bildung*’ as a core obligation of the central state.”

Recent studies, such as those by Collini (2012), have identified additional characteristics which are attributable to the university and core to the character and distinctiveness of the university, such as public good, themselves being a Public Good. This has also been borne out by this research in its findings. As will be seen through the lens of the research findings, universities have become increasingly ‘complex’ organisations. To a large extent, perhaps foreshadowed by Bara and others (2015), much of this complexity has been driven by the ever increasing demands of a widening pool of stakeholders (Trow, 1998). The foundational objects of even ‘modern’ universities are possibly constantly developing, even if informally (that is, not necessarily as a result of changes to a higher education ‘system’), and the activities of universities being under pressure to meet these stakeholder and other needs and demands. It is these ‘tensions’ that have led to the curiosity that underpins this research.

1.3 Research purpose

Whilst it is important to explore and develop an understanding of the origins of the university, for the purposes of this research, a critical focus is one of exploring the very nature or essence of the university, its foundations. Stated in another way, as expressed by Jarvis (2001) “What is a ‘real’ university?” As is underpinned by this research, and will be developed in greater depth throughout the

expression of this research, the answer to this question is likely to not be a binary one. This will of course be expanded on throughout this research, as this is core to developing an understanding of the distinctiveness of the university.

All of these perspectives allow us explore and further our understanding of the elements that describe and have come to define the university over time – allowing for the possibility, which is implied by the underpinning questions, that the defining elements of the concept of the university may have changed or shifted in some manner.

This curiosity has led to a broad question:

How does the university respond to the many forces driving change, whilst recognising its foundational characteristics and values?

1.4 Case studies and research questions

The wide-ranging interactions and engagement with universities as previously mentioned have been the catalyst for this underlying research interest in exploring the foundations (and philosophical underpinnings) of the university, the development of the university, and therefore accordingly, what have been the key drivers, or perhaps, transforming drivers, that have been critical to those developments. In terms of developments, that term is used in a manner that has the broadest possible import – encompassing all manner of possible changes to the university and the concept of the university. The foundational attributes of the university are in contrast to the operational or ‘functional’ characteristics of the university, as illustrated and set out below in Figure 1. In relation to knowledge and universities, Scott (1984) notes that some of the differences between universities represent a contrast that is really one of the functional not philosophical, or in this research also referred to as foundational. As further discussed throughout this research, this distinction is a useful one for the purpose of examining whether a response to (the drivers of change) on the part of a university merely impact the functions or operations of a university, or goes to the foundations of a university.

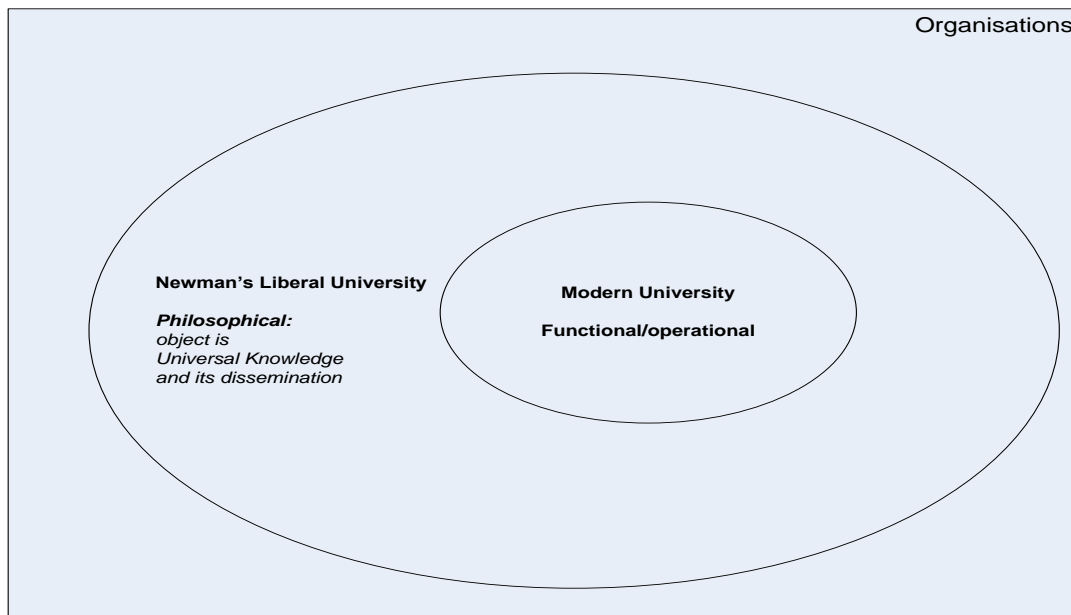


Figure 1: Foundational and functional dimensions of the university

This research interest and exploration is more succinctly expressed in terms of the following research questions:

- RQ1: What are the characteristics or elements of the university that define the university, as unique from other institutions or organisations?
- RQ2: What have been the critical or transforming influences or drivers that have caused significant change to universities (or the ways that universities behave) (“transforming drivers”)?
- RQ3: How have universities responded to these drivers or how have they changed?

Using the South Australian public universities as being largely representative universities in the Australian higher education system, this research aims to address the above research questions. The rationale for this approach is supported by the illustration of the role of higher education systems, below.

Context – Higher Education systems

In the contemporary environment universities do not operate in a vacuum. Over time an important part of the overall context and environment in which universities have found themselves having to function is an environment that is very much shaped by policy and regulation, often defining a higher education system. This environment or system rarely remains static – such ‘systems’ can profoundly affect universities in the way in which they operate, or, arguably, in fact, affect the nature of the institution. These ‘systems’ or the broader, localised higher education environment is not typically put in place all at once, but often develops over time (being shaped by policy), and is itself affected by diverse influences. By way of illustration, there are key events or cultural drivers that have shaped these systems and the higher education environment, quite separately from the more recent globalisation drivers. For example, in Altbach and Umakoshi’s (2004) significant study of Asian universities, they highlight amongst other things, two possible frameworks that have influenced the shape of Asian higher education. The first, amongst whose proponents is Dore (1976). In one of the principles Dore suggests that the expansion of higher education in Asia was to a larger extent underpinned by “an inflated importance of [having a] higher education background in developing countries.” It being contended that this is particularly so in countries in the region that became independent after World War II, where there were political changes (democratization), preceding economic changes (industrialisation), which paved the way for the rapid establishment of democratic educational systems. This academic background had been recognised, in developed nations, as a pre-condition for entering the labour market - whereas Altbach’s (1982) proposed framework to describe the development of higher education in Asia, titled the ‘dominance-subordination’ framework, emphasises that at the ‘root’ of Asian universities, particularly their academic systems and fundamental ethos, had been developed by following the example of universities in the United States or Europe, irrespective of whether a country had been their colonial ruler. Even in the case of this researcher his early experiences of higher education have been influenced by these factors – his father graduating from secondary school in Malaysia shortly after

World War II, with a 'Cambridge' "school certificate" qualification which made him eligible to study at universities across the Commonwealth – this very much directed the shape of his father's further education towards the Australian university system, particularly having opted for an English-speaking secondary education, comprising the study of classical languages, instead of the Chinese education also on offer.

South Australian universities

In Australia, there have been a number of key turning points which have shaped the higher education environment, and therefore universities, with significant effect. Amongst them, was the decision in 1957 to fund universities nationally, leading to the establishment of a national system (Forsyth, 2015). Since that time the complexion of this national system can be described in a number of ways. Even though in recent times we have seen the entrance of overseas universities or consortia, such as Carnegie Mellon, fleetingly University College London, and Torrens University, the universities comprising the Australian university component of the higher education system, are predominantly made up of 'public' universities – 37 of the 42 universities in Australia are public.

In more recent times, the impact of the so-called Dawkins (1987) government policy reforms which according to Marginson (1997) introduced particular market dynamics – this (and perhaps the following Vanstone (1996) reforms) also resulted in, amongst other things, the emergence of categories amongst the public universities in Australia. This is of importance to this research in that it reinforced a categorisation on these universities in terms of certain characteristics. For the purpose of this research this is a logical way to guide and support the selection of universities for examination. Raciti (2010) summarises this categorisation as follows (and consolidated in Table 1 below):

Category	Universities	Characteristics
<u>Sandstones</u>	Sydney, Queensland, Adelaide Tasmania, ANU, Melbourne, West Australia	Oldest universities; cloistered campuses; claim leadership in academic disciplines and research, and professional training; suggested more powerful due to superior resources, political and social status , historical roots, an strong academic culture.
Redbricks	Monash, ANU, UNSW	Less traditionally academic, similar objectives to Sandstones; tend to be more corporate, entrepreneurial while maintaining both applied and pure research strengths.
<u>Unitechs</u>	UTS, QUT, Curtin, South Australia , RMIT	Post-1987 universities of technology that generally compete with Sandstones in specific areas such as, for example, business and computing; strong graduate professional culture and noted sustained industry links. Committed to broad student access. (Seen as vocationally superior to the Gumtrees.)
<u>Gumtrees</u>	Griffith, Newcastle, Flinders , James Cook, La Trobe, Macquarie, Wollongong, New England, Deakin, Murdoch	Founded 1960's and 1970's; similar claims as Sandstones to social prestige; academic achievements regarded as credible but claims of prestige similar to Sandstones questioned; determination to be modern and innovative, with principle strengths in sciences, arts, social sciences and humanities; other differences included seeming informal, democratic and inter-disciplinary nature.
New Universities	Edith Cowan, Central Queensland, Southern Cross, Charles Sturt, Canberra, ACU, Northern Territory (CDU), Swinburne, Southern Queensland, Sunshine Coast, VUT, Ballarat [Now Federation University.]	Granted university status post-1986; emphasise access, consumer friendliness, regional factors and teaching quality; at least initially, attracted large numbers of mature- age students, fewer school leavers and more first generation higher education families. [Now includes the University of South Australia.]

Table 1: Categories of Australian public universities (Raciti, 2010; Marginson & Considine 2000)

Even though a number of the above distinctions between these university categories may have become somewhat blurred, with universities across these categories all making similar claims while endeavouring to promote their individual distinctiveness, this still presents a useful view for examining a structure of the Australian higher education system in relation to universities. For this research,

importantly, this categorisation has been a useful starting point in the selection of the universities for examination, as an integral part of the exploration of the above questions. This research will focus on the three South Australian ‘public’ universities: the University of Adelaide, Flinders University and the University of South Australia.

The rationale for this approach is to enable the collection of rich, in-depth thematic data by way of interviews with university thought leaders, who are senior members of their institutions – leaders and members who are well placed to understand the past and the present of their institutions, and to be in a position to influence the future – thus being able to respond in a meaningful and informed way to the research questions, and any other matters that might flow from them. Most of these leaders fit within the ‘Executive structures’ described by Marginson and Considine (2000), or are in fact Vice Chancellors of their universities and being the “pre-eminent influence”, with others being members of (p. 87):

“... semi-formal decision-making groups to support the VC’s vision and reach. Most have no formal status and are not defined by statute. Most have no direct reporting relationship to other university bodies such as council or academic board.”

These members of the university are none the less highly influential, and amongst the Vice Chancellors, are themselves well placed to inform the exploration of the matters underpinning the core questions.

Institutionally, these universities are representative of three of the above categories for public universities in the Australian higher education system: Sandstone, Unitech and Gumtree – representing a significant cross section of the types of university in this higher education system.

1.5 Significance of the Study and Research

Broadly speaking, the contribution of this research is through the three major thematic areas set out below.

- i. First, importantly, the above research questions anticipate a further question that connects each of them. Particularly in the context of the modern or contemporary university (and their environment), have the universities responses to these transforming drivers affected the actual foundations (or the unique nature) of the university – or put another way, have the responses merely affected the operational and functional fabric of the university? – have the changes and responses by universities materially affected their character, been transformational? Most studies have focussed on the individual elements that are the subject of this research, or at most, only tentatively examined the linkages between each of these questions.
- ii. Secondly, there have been a wide range of studies examining the basis or definition of the university, others that have suggested the development of different ‘forms’, or even types, of university (including significant shifts in the activities of universities). A number of studies have reported on the various factors that have affected the operations and behaviours of universities. Most studies have predominantly focussed on one of these aspects, while, perhaps having lesser regard to the others – or reviewing them in a cursory manner. Relatively little is understood about:
 - the nexus between the perspectives of current university leaders concerning the definition and foundations of the university, and the sources that describe and define the antecedents of the modern university,
 - the connections between the core drivers and influences that have significantly affected changes to universities and their conduct, and the responses of universities, and
 - whether and to what extent have any of those responses affected the nature, or even the definition, of the university?

To date no research has investigated these matters and the linkages between them.

- iii. Finally, further, this research positions the perspectives of current university thought leaders, and key sources and studies, in exploring these questions. Little research has done that. This

research explicitly compares these core questions through the lens of current university leaders and research sources and studies – the intersection between these perspectives. Many of these themes have been quite distinct whilst others have been more nuanced.

Findings – an indication

There appears to be general agreement in relation to the university being underpinned by ‘knowledge’ in some form – at this point the narrative is coloured by some interesting nuances. Is this foundation limited to the creation of new knowledge, the application of knowledge, or has there been a shift to the creation of so-called ‘enabling’ knowledge? Is the hallmark of the university the pursuit of a significant level of fundamental knowledge, through the conduct of basic research? A number of narratives indicated that it is important to frame knowledge with respect to society – with very specific indicators from studies and the interview data, strongly arguing the foundational prominence of ‘public good or benefit’ as a unique object of the university.

Academic freedom and independence manifested itself in different forms across the literature studies and the research data as a cornerstone of the university – whereas a pre-eminent leader forthrightly asserted that the forces of change had all but deprived universities of their independence. What of freedom of speech? – is this still a practical object?

The research data and interviews highlighted the growing pressure for universities to focus on governance and ever increasing levels of attention to management – this is also a key feature of Marginson and Considine’s (2000) ‘enterprise university’. “The university has become a business” or similar words were often uttered – this was a recurring theme. One which has often been repeated in the studies and arguably seminal works of research (Slaughter and Leslie, 1997; Readings, 1996). Whilst others point to universities as being adaptable in some way: as entrepreneurial universities (Clark, 1998) and adaptive organisations (Sporn, 2001).

Other relevant fields

There are other fields and seminal studies that are relevant to this research as the expressions to describe the core of that research has often been applied to the actions or new behaviours of universities: “we must be more entrepreneurial”, “universities have become more entrepreneurial”, or similar words. So, the field of ‘entrepreneurship’ warrants exploration for the purpose of this research – exploring the extent to which the cornerstones of entrepreneurship (across its various schools of thought) align with the experiences of the university leaders in this research. Also, this research investigates whether this important field of study aligns with the studies that specifically refer to entrepreneurship in the case of universities: Clark’s (1998) entrepreneurial university (and its strengthened steering core; an expanded developmental periphery; diversified funding base; stimulated academic heartland; and integrated entrepreneurial culture) and Shane’s (2004) academic entrepreneurship. Across the field of entrepreneurship, this research will compare and contrast the facets of the data and university specific literature sources, with a number of seminal studies on entrepreneurship, such as, for example, Schumpeter’s (1934) ‘creative destruction’, encompassing the dimensions of opportunistic behaviour and entrepreneurial profit, and Lumpkin and Dess’s (1996) concept of ‘entrepreneurial orientation’. Embedded in the formal concept of entrepreneurship, is the notion of risk-taking. The university leaders present an interesting range of perspectives on their university’s responses to change, and the appetite for taking risk – which points to a new level of acceptance for risk-taking but calibrated for universities, rather than as would occur in a fully commercial, for-profit environment. (A university director (in a public university) once pointed out to the researcher, that universities make surpluses rather than profits.)

Universities have had to adapt and some say ‘innovate’ – that is clear. However, is the university in any way the same ‘idea’ whether as envisaged by Newman, or Humboldt, or others? That is the bold purpose of this research – to start to explore and unravel this complex question (which has been noted elsewhere, comprises more than one question).

The forces for change are perhaps even more strongly expressed in the emerging involvement of global management consulting firms entering the debate – questioning the system, further characterising universities being integral to a sector that is an ‘industry’: a reimagining of higher education as an ‘ecosystem’ (KPMG, 2009); conceptualising the university of the future in an industry context (Ernst & Young, 2012); and the role of universities in Australia’s prosperity, very much a focus on economic value (Deloitte, 2015, for Universities Australia, which is an umbrella organisation representing many of Australia’s universities).

The thematic analysis of the literature sources and interview data from university leaders yielded a complementary mix of themes in response to the three core research questions, and rich narratives – all of which have provided a significant contribution to the understanding of the nature of the ‘modern’ university, and the connectedness between the shape of the university and its responses to the ever increasing forces for change.

1.6 Structure of the thesis

To fully explore these questions, this thesis is structured as follows:

Chapter 2: this chapter sets out relevant studies and sources of literature, relevant to each of the research questions. This includes an examination of the contributions of Newman, and Humboldt, and others concerning the ‘idea of a university’, and the commentaries concerning them – including the contextual settings of those contributions, which in some instances suggest that these contributions should only be applied in a limited way. Other studies indicate a range of the key drivers that have influenced the activities of universities, and may have even led to new types of universities or types of activities. For example, such as the entrepreneurial university (Clarke, 1998), corporate university (Jarvis, 2001), and ‘academic entrepreneurship’ (Shane, 2004; Wright & others, 2007). The studies relating to specific drivers include: government policy, globalisation, the role of technology, market forces/marketization, stakeholder diversity and influences, skills and labour capacity building, and

commercialisation – the drivers were not always found to be unrelated to one another, or have mutually exclusive effect. By way of illustration, the literature covers a selection of strategies used by universities to provide ‘balance’ to their activities: for example, a ‘balanced scorecard’ approach, as perhaps a strategy to balance the responses to the competing change drivers.

Chapter 3: this chapter describes the research method and approach to conducting this research. To address the research questions through the dual perspectives of the studies described and analyses in chapter 2, and the lens of current university leaders. This chapter sets out the ‘thematic’ approach (Braun and Clarke, 2006) that has been taken, and the justification for the selection of the individual research subjects for interviewing. Importantly, the findings and analysis under this research exposes a number of linkages (or feedback ‘loops’), using high-level research method concepts from Morecroft and Sterman’s (1994), and Sterman’s (2000) approach to ‘modelling’ and feedback loop modelling, thus applying elements of two quantitative methods – a multi-method (as opposed to mixed method) research approach (Hunter and Brewer, 2003). This allows the researcher to describe and start to understand what dependencies might exist between the themes arising out of the analysis from the research interviews and the literature sources, and between both of them. For example, this includes the dependencies between research questions 1 and 2, and even 1 and 3 – the latter being the dependencies between the foundations of the university and its responses to the wide-ranging change drivers – or stated another way, have any of these responses affected the character or nature of the university? Graphically, this could be represented as in Figure 2, below.



Figure 2: themes – feedback loops between responses to change drivers and university foundations

Chapter 4: this chapter provides an analysis of the research data, primarily, the interviews conducted with the selected university leaders. Having said that, to achieve the exploratory aims of this research, the thematic approach is also applied to the studies and literature from chapter 2 – importantly, this is essential to position these studies and the perspectives of the interviewed university leaders.

Chapter 5: this chapter is the distillation of the research data (comprising the analysis of literature studies and interview data), setting out the findings and conclusions of this research, and indicating useful directions for future research. A number of the findings are only indicative, rather than conclusive, therefore pointing to future research directions. These directions might include a further examination of whether the concept (or 'idea') of a university is something that is malleable, such a set of values that can be 'stretched', or is an artefact that is more akin to Gladwell's (2000) notion of a 'tipping point', where there is a so-called tipping point where an institution that was once regarded as a university ceases to be so – or are there degrees of university-ness, a continuum?

1.7 Summary

This chapter has introduced the elements of this research, comprising an exploration of the foundations, change drivers and responses to change comprising the modern university. This is an exploration through the lived experiences of the university leaders of the three South Australian public universities. The exploration through these experiences takes the form of identifying the patterns and themes arising from their experiences – this is an interpretive approach, which distils concepts, interactions and models concerning these universities and the roles of these leaders.

2.1 Introduction

In the manner in which this research is exploratory in nature, and the approach to this research is, as already noted, tending to be an interpretive one, it is most appropriate to read this with a narrative perspective. Accordingly, this review of the relevant literature is not intended to be a close review, or wholly exhaustive in relation to all areas, nor to resolve all controversies concerning, for example, the various interpretations of individual sources. Rather, its purpose is to provide critical background, and importantly, to, in the first instance, provides a distillation of the key features of some of the core concepts and 'ideas'. However, one of the key features and contributions of this research is to compare (and contrast) the core themes from these sources and studies, with the emerging themes arising out of the research data, comprising the interviews with university 'thought leaders'. It is useful to restate the research questions, as these sources and studies necessarily align with these questions, and in some cases, more than one of the questions:

- RQ1: What are the characteristics or elements of the university that define the university, as unique from other institutions or organisations?
- RQ2: What have been the critical or transforming influences or drivers that have caused significant change to universities (or the ways that universities behave) ("transforming drivers")?
- RQ3: How have universities responded to these drivers or how have they changed?

Set out below are the areas of these literature sources and studies in following sections – the emerging themes will start to become evident through this chapter. As previously mentioned, it is an interest in

further understanding the positioning of these important studies and the perspectives of current university leaders that has been one of the catalysts for the researcher’s curiosity and research interest.

Broadly speaking, the areas under which these key literature sources and studies might fall are: (1) foundations of the university, defining the concept or ‘idea’ of the university; (2) forces and drivers of change; (3) responses to these forces; (4) new and emerging types of university; (5) significant types of responses and activities; and (6) development of the higher education environment and systems. A basis for identifying these areas of studies for examination is indicated by the following Table 2, which sets out the alignment of these areas with the overarching research questions.

Chapter section	Area	RQ1	RQ2	RQ3
2.2	Foundations of the university, defining the concept or ‘idea’ of the university	✓		
2.3	Forces and drivers of change		✓	
2.4	Responses to change drivers from 2.3			✓
2.5	New and emerging types of university			✓
2.6	Significant types of responses, reactions and activities		✓	✓
2.7	Development of the higher education environment and systems		✓	✓

Table 2: Alignment of literature source areas and research questions

It is not intended that the individual sources will provide exhaustive coverage of all of the sources relating to each of these areas, rather providing key examples of the material features and elements, and relevant debates, concerning the university, which relate to the areas comprising the research questions.

2.1.1 Interpretation

As will be revealed through this review of literature and key studies there are several debates that will come to light. For example, issues concerning the contribution of Newman to the concept or 'idea' of the university. Some researchers contend that this contribution has strict limits on its broader application to defining the university on the basis that Newman's (1852) discourses were designed as the basis for a Catholic University in Ireland, whereas Pelikan's (1992) detailed work which examines Newman's contribution provides a number of counterpoints. It is noted as an example as a way of introducing the importance of interpretive approaches for the purpose of reviewing the literature, as opposed to an interpretation of the research data. For this exploratory research it is useful, if not critical, to adopt a broader set of approaches. It is for this reason, it is useful to canvass some interpretive principles (or 'rules') from the legal field, by mere analogy, to illustrate how this can provide a changed perspective. These principles are noted to suggest that this should be borne in mind to highlight the significance when applying various lenses to sources and the analysis. Perhaps at either end of an interpretive spectrum are the so-called 'literal rule' and the 'purposive approach'. Under the literal rule it is expected that the underlying intention is best found in the ordinary and natural meaning of the words used. Whereas under an application of the purposive approach one looks to what, for example, in the case of the law, the legislation was meant to achieve (in the case by Parliament) – or perhaps the literal versus 'spirit' approaches.

These are merely matters to be borne in mind in terms of the lens through which we examine the contributions expressed through the literature.

2.2 Foundations of the university, defining the concept or 'idea' of the university

2.2.1 Medieval University

In Wieruszkowski's (1966) seminal study of the Medieval University she significantly notes that the university is a creation of the Middle Ages, and the modern university can look back to more than seven

hundred years of continuous history – being the direct descendant of the medieval *studia*. However these descendants did not have the same material existence or academic organisation. These universities were not as much ‘created’ as they “grew as a natural expression of the spiritual, intellectual and social energies” of the age. The medieval universities were a meeting place of students and masters drawn together by the common desire for learning – often attached to cathedrals in centres that became known as *studia*. The popularity of particular teachers and their subjects gave them a position of certain distinction – becoming recognised by custom (*ex consuetudine*) as *studia generalia*. This title became general recognised for the degree of teaching licence which they conferred. At first only Paris and Bologna, and later Oxford (and a few other schools) were granted this recognition and honour. This was used for schools of higher learning until the fifteenth century. Later the term “university” replaced the use of the word *studium*. The Latin word *universitas* means our “university” and was applied solely to the guild of masters and students – the schools and scholastic guilds were gradually “fused”, and practically became identical.

2.2.2 Newman

It is useful to reiterate that Newman’s (1852) formulation of the object of the university comprises the education of the intellect or the diffusion of knowledge – with this being the “direct scope of a University” - a University’s “end is knowledge”. In relation to knowledge Newman is very specific, he means what he refers to as that ‘form of Universal Knowledge’ which is the ‘perfection’ of ‘the individual intellect’ (ibid., pp. 122-123). Further reinforcing Newman’s notion of a university, he states that:

“A University, I shall lay down, by its very name professes to teach universal knowledge ...”

Newman’s (1852) view and conception of Universal Knowledge is further explained in the following passage:

“I hardly know what steps to take in order to establish this position, which has been startling to some persons, viz., that the education of the intellect, or the diffusion of knowledge, is the

direct scope of a University. It seems a truth, or rather a historical fact, which is impossible to dispute, and therefore hardly possible to prove. What would be the popular description of a University? A place of learned and scientific men, a learned body, a large corporation, with professors of art and science, with faculties in theology, law and medicine, with logical disputations, with examinations in intellectual proficiency, with degrees in token of that proficiency attained. ... but the question before is as to the idea on the whole, or the formal conception, of a University in the minds in the generality of men; and I cannot doubt it would be pronounced at one to be a seat of science and letters, or that its end is knowledge.

It is possible to further clarify Newman's (1852) scope of a university by examining his meaning of education; education being the "preparation for knowledge" and also being the "imparting of knowledge in proportion to that preparation".

In terms of the essential characteristics of that knowledge or more particularly the Universal Knowledge it is instructive to consider Newman's (1852) distinction between instrumental knowledge and what he termed Philosophy, and the nature of knowledge, respectively:

*"here are two methods of Education; the end of one is to be philosophical, of the other to be mechanical; the one rises towards general ideas, the other is exhausted upon what is particular and external" (Newman, *ibid.*, p. 85)*

"I only say that Knowledge, in proportion as it tends more and more to be particular, ceases to be Knowledge."

Further reinforcing another critical feature of knowledge, Newman (1852) asserts that knowledge is an end in itself:

"Knowledge is capable of being its own end. Such is the constitution of the human mind, that any kind of knowledge, if it be really such, is its own reward."

Pelikan's (1992) detailed and exhaustive 'reexamination' of Newman's discourses is a useful study in drawing out many of the key dimensions of Newman's idea of a university. Pelikan also provides an interesting counterpoint to a number of the debates concerning the limitations of Newman's discourses. Collini (2012) questions the 'usefulness' of Newman's idea of a university: "This book was mainly based on lectures given by Newman in 1852 and addressed to a very specific and now largely forgotten question about establishing a Catholic university in Dublin." Furthermore, Connell (2019) provides further contention concerning the relevance or application of Newman's discourses: "Newman's *Idea of a University* was a bad plan because it looked backward to a dying knowledge formation, one that depended on orthodox religion and centred on the study of ancient texts." Collini and Connell do provide further points in support of their arguments concerning the 'usefulness' and relevance of Newman, particularly Collini. Perhaps, Pelikan (who is even referred to by Collini) provides an appropriate balance to these debates and controversies – but I restate that it is not the purpose of this research to resolve these debates but to reveal them, and to turn to interpretive approaches that support the thematic nature of this research.

Whereas Pelikan (1992, pp. 6-7) notes the remarks of other commentators in relation to Newman's contribution:

... for example, Jacques Barzun, referred to Newman as the "greatest theorist of university life."

...

In relation to *The Idea of a University*, George N Shuster in the introduction to a 1959 edition asserted, with confidence "No doubt the book has done more than any other to stimulate reflection on the character and aims of higher education." (p. 6)

In the 1960 edition of Newman's *Idea of a University*, Svaglic, in his introduction, refers to it as "the eloquent defense of a liberal education which is perhaps the most timeless of all his books

and certainly one of the most intellectually accessible to readers of every religious faith or none.”

More significantly, in terms of a matter which appears to be at the heart of many of the debates, Pelikan (1992) states that, concerning the objects of the university (flowing from Newman’s Idea of a University):

“... in major themes of *The Idea of a University*, for example in the five discourses out of nine in which the theology or religious or church is part of the title. (p. 8) [However] [h]is stance throughout the book made it clear that the object of the university as he was discussing it was, as he said in his preface, “intellectual, not moral”; for, he continued if its object were “religious training, I do not see how it can be the seat of literature and science”. [This is what has made his work, in Svaglic’s (1960) words, “intellectually accessible to readers of every religious faith and of none.” (p.9)]

“Newman strove, though perhaps not always with complete success, to disengage his educational arguments from his own sown specific theological stance.” (p. 9)

[Newman:] “I am not discussing theological questions at all”, he frequently disclaimed (I.viii.3); or more fully, he said he was “treating [the university] as a philosophical and practical, rather than as a theological question, with an appeal to common sense, not to ecclesiastical rules” (I.ix.I).

We therefore contend that in Pelikan’s re-examination of Newman’s the Idea of a University (and more broadly) a key issue “is not whether the fundamental metaphysical assumptions of Newman’s Idea of a University are philosophically tenable or theologically defensible ... but whether these assumptions can still contribute to conclusions about the idea of the university that are educationally justifiable for those who do not accept the assumptions philosophically and theologically as well as for those who do.” (p. 9-10)

2.2.3 *Humboldt and the Humboldtian University*

Arguably, over the past 100 years, the name of Wilhelm von Humboldt has been held as a symbol for the 'classical' model of the research university. Humboldt's concept of the university is another important source for consideration in relation to the foundations of the university. For the purpose of understanding the contribution of Humboldt, we refer to the studies of Nybom (2003), and Ash (2006), which are amongst many others. Each of Nybom and Ash position the articles comprising their studies in terms of Humboldt and a 'legacy', and 'myth', respectively. (Nybom includes in his considerations Wilhelm von Humboldt, and makes mention of Alexander von Humboldt.) Nybom stating that in his view "there is a lasting and important legacy from the Humboldt brothers ... A legacy that is not only worth cherishing but, in fact, indispensable for everyone who has the slightest interest in promoting the welfare of European higher education, research and culture in the future." Nybom sets out his reasons for this view. As previously noted, Nybom (2003) distils the Humboldtian university concept and its "five cornerstones ... [as]: the unity of research and education/teaching; the holistic nature of knowledge – New Humanism; the primacy of research – that is, and education 'infested' and controlled by research; a national culture dominated and distinguished by higher learning – Bildung; and the promotion of the higher learning, science and 'Bildung' as a core obligation of the central state."

Whereas, Ash's (2006) analysis of the sources suggests that the components of this research university have been described quite differently in different contexts, but that the following four elements appear to be common to all descriptions:

- *Freedom of teaching and learning* (Lehr- und Lernfreiheit). Central here is that Humboldt was a liberal in the traditional sense. He believed in individual freedom, and therefore argued that students had as much right to choose their instructors and subjects as professors had to decide what and how they taught. This implied a radical break with any form of set curriculum.

- *The unity of teaching and research* (Einheit von Lehre und Forschung). For Humboldt and those who cite him, learning is a collaborative enterprise, in which ‘the professors are not there for the students, but rather both are there for science (and scholarship)’ (Humboldt, 1809/1990, p. 274).
- *The unity of science and scholarship* (Einheit der Wissenschaft). For Humboldt at least there was no fundamental distinction in principle between the natural sciences and the humanities, because the concept of Wissenschaft applies to both.
- *The primacy of ‘pure’ science* (Bildung durch Wissenschaft) over specialised professional training (Ausbildung, Spezialschulmodell). Humboldt and those who cite him claim to understand science and scholarship as processes of inquiry — ‘not a finished thing to be found, but something unfinished and perpetually sought after’, as he put it — not the discovery and repetition of things to be learned from textbooks, but an approach to learning, an attitude of mind, a skill and a capacity to think rather than specialised knowledge” (Humboldt, 1809/1990, p. 274).

Ash (2006) discusses what he calls ‘The Humboldt Myth’, stating that this myth is powerful even though there seems to be little evidence that the Humboldt model of the university was ever adopted, particularly in German-speaking Europe, and in America only with significant qualifications.

2.3 Forces and drivers of change

In recent times there have been many forces or influences that have shaped universities. Not least amongst these are government policy, universities being viewed as a means of satisfying workforce demand, the influence of the expanding influence of changing stakeholders (with increasing accountability), the unique environments in which individual universities have developed (Altbach and Umakoshi, 2004), and the “massification” of higher education (Trow, 1998; Fulton, 1998).

These are a mere sample of some of the matters that have influenced, and continue to influence universities (albeit substantial influences). The relevance of raising these drivers and influences is to illustrate whether an influence might merely affect the operational and functional aspects of a university, or whether they affect the foundational, philosophical underpinning of a university (as set out in Figure 1, Chapter 1).

2.3.1 Government Policy

A notable example of government policy intervention or influence is identified by Henkel and Kogan (1999) where *Government has also aimed to channel research into ‘useful’ areas including the promotion of ‘strategic research’ which will be fundamental in its nature but directed towards economic and social ends.*

To amplify this point they refer to changes in curriculum as perhaps, in the case of their research, as the main activity variable by which the significance of external pressure can be judged, noting that

“changes in curriculum, which, together with work experience, are the principal means by which undergraduates are prepared for employment. Undergraduate programmes may be framed to meet essentially academic objectives or to produce graduates able to apply knowledge and skills in specific areas

The academic programme aims to prepare graduates who are well grounded in their subject and credible exponents of their discipline. Such courses attempt to introduce the students to the fundamental knowledge and principles of their disciplines and to socialise them into an academic community. Vocational programmes seek to produce graduates able to apply relevant knowledge and skills to particular ends and specific areas of practice.”

The above continues to be a source of government policy pressure for universities, as is discussed in the later analysis and discussion chapter. This may represent an instance where the knowledge has tended to be particular to the extent that, in Newman’s (1852) conception, it has ceased to be Knowledge, therefore causing the particular institution to cease being a university in character.

There have been a number of critical points in the Australian higher education landscape. Raciti (2010) succinctly summarises a number of these key turning or inflexion points:

- *“Mid-1800s:* The government assumed responsibility for the organisation and provision of mass education. Australian universities were modelled upon British institutions and were all established by governments, and in most cases almost totally reliant on government funding.
- *1945:* At the commencement of World War II there were six small universities with a total enrolment of 14,000 students.
- *1950s:* Increased demand for tertiary education followed World War II and the Federal government offered scholarships to returned servicemen. The unprecedented expansion of student numbers brought increasing student diversification. This marked the beginning of a modern university system that was no longer socially elitist.
- *1960s - 70s:* The Binary System was operationalised and consisted of universities and Colleges of Advanced Education (CAEs). New universities were established and Colleges of Technical and Further Education (TAFE) developed as the result of government spending. As a consequence of the new structure, demand for tertiary education was split. The new structure

saw university market share drop to around one fifth of post-secondary enrolments by the 1970s as participation in the more vocational CAEs and TAFE colleges grew.

- *1974:* The Whitlam government abolished all tertiary fees, with the Commonwealth assuming responsibility for all funding for universities and CAEs. The intention was to promote the equality of educational opportunities. Many new institutions were established.
- *1977:* By the late 1970s, CAEs continued to grow in size and were emulating universities with students enrolled in bachelor level degrees and attracting top-level academic staff. This shift brought greater specialisation and diversity to the sector. The government imposed stricter funding restraints due to an economic downturn and concern about the unnecessary duplication of courses. Increasing fiscal constraints during the next two decades stifled the continued expansion of universities and university programs. With competing demands for public funds, higher education remained freely available for another decade until the introduction of the tertiary administration charge.
- *1981:* The Fraser government's 'Razor Gang' (Committee of Review of Commonwealth Functions) amalgamated many small single-purpose colleges to reduce costs.
- *1987:* Dawkins' reforms under the Hawke government brought an end to the Binary System, which consisted of 19 universities and 69 colleges, and developed the Unified National System (UNS) of tertiary education. There were three main models of mergers being unitary, federal and associative; thus, some universities merged with CAEs (for example, Flinders University) while other CAEs set upon being granted university status (for example, Central Queensland University). Direct fee charging for international students began and Commonwealth funding was just over 80% of institutional operating budgets. The Higher Education Contribution Scheme (HECS) was created and came into operation in 1989 with the number of HECS places determined by negotiation between the government and institutions. This situation created a quasi-market in education. HECS offset the reduction in government funding by

having students pay a part of the cost of their education. Students were charged the same irrespective of course, about a fifth of the full, average cost of an undergraduate degree.

The UNS served to assist the government to more closely align higher education to the needs of the economy. The elimination of the binary divide aimed to quell concerns about the growing status of CAEs. Among the changes associated with the move toward privatisation of higher education in the latter 1980s, the first private universities and colleges came into operation in Australia.

- *1994:* The UNS consisted of 36 universities as a result of the mergers between institutions and the granting of university status to some CAEs.
- *1996:* Vanstone's reforms under the Howard government saw an increase in HECS fees, the introduction of a three-tiered HECS scheme, reduction of the HECS repayment threshold, and a planned reduction in Federal government funding, further entrenching higher education in a quasi-market. Government funding of institutions had reduced to around 57% of their operating budgets with other key sources of income including postgraduate and overseas student direct fees, State Government funding, investments and other fees and charges.
- *2003:* Major reform to the higher education sector was proposed by the Honourable Dr Brendan Nelson MP under the Howard government. A review of the present higher education framework identified problems, including increased costs for course provision, the need for increased resources for the sector, duplication in some university activities and courses, non-completion of approximately 30% of students and over-enrolment by institutions. Further, Dr Nelson noted that government policies have constrained universities' ability to diversify funding sources and the centralised Commonwealth bureaucratic arrangement has limited the sectors ability to be internationally competitive. The proposed reforms aimed to ensure a long-term, sustainable university system."

Since 2003, there have been other major reviews and policy reforms, which have been reviewed and summarised in the Australian Government's 'Higher Education in Australia, A review of reviews from Dawkins to today (2015). In addition to the above reviews:

- *2008: Bradley Review* examining the state of the Australian higher education system against international best practice, the future direction of the sector and its capacity to meet the needs of the Australian community and economy. This included consideration of the possible contribution of the sector to the innovation and productivity gains to economic development, and ensuring that the system could produce professionals for the national and local labour markets. This review resulted in 46 recommendations. Key outcome was the introduction of demand driven funding, which was supported by an increase in full-time student load from about 440,000 in 2008 to approximately 600,000 in 2014, increasing annual Commonwealth Grant Scheme expenditure from \$4.06 billion to \$6.35 billion.
- *2011: Lomax-Smith Base Funding Review* to identify principles to underpin public investment in higher education, including consideration of the amount of funding to maintain global competitiveness, differential costs between different types of courses, proportion of costs to be met by students, ways to provide incentives to encourage the enrolment of low socio-economic status students, incentives to encourage high-quality teaching. Whilst there were many recommendations made and the Government accepted the intent of them there were no significant changes made. A few changes were made in alignment with the recommendations: an increase in the funding to the Higher Education Participation and Partnerships Programme, and an increase in the 'enabling' load (that is, load other than undergraduate and postgraduate programs, such as 'foundation' courses).
- *2014: Report of the National Commission of Audit*, which led to the release of national priorities for research, consolidation of research programmes, two year extension of funding for specific research programmes, and reviews of research funding policy and research training.

- *2014: Kemp-Norton Review of the Demand Driven Funding System* to examine the performance of the demand driven funding system. The recommendations included that caps on bachelor-level places not be reimposed, maximum funding rates for engineering and health disciplines be considered (due to cost pressures), sub-bachelor courses should be included in the demand driven system, and caps on Commonwealth supported postgraduate courses should be removed.

Various governments have demonstrated that they can have a significant impact across the sector without having to resort to major policy reforms. For example, after failing to pass earlier legislation to de-regulate university student fees (coupled with a reduction in government grant revenue to universities), in 2019 as part of its mid-year Economic Forecast (or MYEFO) the Australian Government fixed government student grant revenue at 2017 levels, thus effectively reversing the immediately previous demand-driven policy, which resulted from the recommendations of the Bradley Review (2008).

2.3.2 *The 'economic' policies*

Whilst many of these reviews have seemingly focussed on undergraduate and other coursework programs, there have been reforms affecting university research, including a range of adjustments to the levels of funding, the scope of research that will be funded, areas of research priority, and the introduction of research criteria through various forms of research 'impact' (such as under the Australian Government's previous Research Quality Framework and recent proposed adjustments to the ERA, Excellence in Research for Australia, Australia's national research evaluation framework which is administered by the Australian Research Council). It is not uncommon for these policies to be driven on the part of government by a desire to increase productivity across the economy, a motivation that is often shared by many industries. The success (or otherwise) of such interventions may often be

unclear, with them being implemented as a piecemeal policy with respect to a government portfolio area, rather than as an encompassing set of policies.

2.3.3 Workforce demand

It is commonplace for governments in particular, and employers alike, to regard universities as a means of satisfying the workforce demands of the economy. Government and employers often exert pressure or influence on universities for shorter teaching courses and courses that result in students graduating with a greater range of explicit competencies.

Scott (1984) notes that meeting workforce demand is:

... the predominant policy concern [whether in, for example, Britain or Australia] is ... how can the system supply enough graduates of the right type to meet the needs of industry and the economy at large? ... Not that the higher education's relationship with the labour market is a particularly new issue.

The main difficulty with manpower planning is that if higher education is to be regarded as a producer, it has not one but three sets of customers – students, private employers, and the state both as a substantial employer in its own right and as proxy for the broader public interest.

In the United States patterns of student enrolment may respond very quickly and sensitively to fluctuations in the labour market for graduates (although some have argued that the almost instantaneous symmetry of the two is too good to be true) But the same thing does not appear to have happened in Britain to the same extent (ibid., 227). ...

Unfortunately, the messages that higher education receives directly from employers are as likely to be flawed or obscured. There seem to be two broad reasons for this. The first is that employers by and large are conservative. They may say that they need more graduates with

highly specific skills and detailed up-to-date knowledge, but all too often they go ahead and recruit the 'best' student. ... The second is that employers are not necessarily the best judges of their own long-term interests.

However, this can present an exceedingly difficult challenge for universities. This is the very difficult task of attempting to construct a market in 'futures'. From the researcher's own experience industry sectors and even individual companies can be unclear on their own workforce needs, or the direction of their industry (which is often fragmented, at least to some degree).

Universities and university systems that are highly dependent on governments for their funding are, understandably, highly susceptible to the influence of governments.

In a manner that is similar to the above example of the influence of government policy, it is easy to see that an extreme case of this example, concerning workforce demand, may also deprive a university of its character as a University.

2.3.4 Increasing stakeholders and expanding accountability

Universities may be subject to the increasing demands of an expanded range of stakeholders, and the associated increase in accountability.

Gallagher (2001) states that in Australia:

"... universities effectively own themselves and are essentially autonomous. They are able to determine whom to admit as students, whom to employ as staff and the conditions of their employment ..., what to teach and how to assess learning ..., what research to undertake and how to conduct it, what to publish and how, when and where to publish research findings (subject to peer assessment)."

This is compared to universities elsewhere (Gallagher, *ibid*, p. 54):

“Australian universities generally enjoy greater degrees of freedom than their international counterparts in Europe (less so for the UK), North and South America, Africa, the Middle East and Asia. Practice varies across countries but the following features are common to many: universities are obliged to admit students who meet centrally determined criteria; staff are public servants engaged under conditions that universities cannot influence; course offerings and curriculum content are subject to central government approval; assessment is based on central examinations; research is permitted only in designated institutions and publications are subject to government clearance; university budgets are allocated annually on a line-item input basis; universities cannot commit expenditures to projects more than one year’s duration; university assets are owned by the state; and universities cannot invest, borrow or divest without project-specific central approval.”

However, even in the case of Australian universities significant government control is imposed, albeit through less direct means, than is the case with their peers abroad. This influence or control is typically achieved through the mechanism of controlling funding. Even though Australian universities have many stakeholders (including alumni, employers of their graduates, professional associations (and other accreditation bodies), and international research collaborators), Gallagher (2001) suggests that “not the least important external stakeholders are the State and Territory governments that establish universities by statute, define their purposes and powers, and determine and make appointments to their governing councils. The writer contends that even though these remarks are factually correct and seem to indicate that, all other things being equal, State and Territory governments are able to exercise a great deal of influence if not control over Australian universities, the statutes that establish and govern most ‘public’ universities in Australia tend to follow a common formula. The single most influential stakeholder is the

Australian Government. Through its control of most university funding, particularly as it relates to teaching and research funding, usually the external stakeholder with the greatest influence in the Australian context is the Australian Government. That control of funding allows the Australian Government to make universities accountable in many ways, the extent and nature of which has changed over time, and varied from government to government. The power of the indirect or de facto control should not be underestimated, and perhaps permits the Australian Government to exercise a level of control over Australian universities as exists over their counterparts elsewhere.

A parallel yet related set of issues concerning stakeholders arises from the types of accountabilities that face universities. The structure suggested by Trow (1998) for discussing various aspects of accountability for universities in North America, it seems may equally apply to all universities in providing a general framework.

Unremarkably the types of accountabilities are directly related to a university's stakeholders. Trow (ibid, p.19) notes that "there are difficulties in discussing a set of legal, financial, and moral or normative obligations that are so various in themselves. It may therefore be helpful to point to two dimensions or aspects of accountability in higher education immediately, the first being the distinction between external and internal accountability, and the second distinction between legal and financial accountability, on the one side, and academics (moral and scholarly) accountability of the other."

This presents an overall picture that is complex, a picture of stakeholders and accountabilities that affects universities in a way that is unlike other organizations.

2.3.5 *'Massification' of higher education*

Fulton (1998) refers to Trow's process of "massification" in relation to higher education, that is, the formal transition from elite to mass scale education. The so-called massification of many European universities has challenged many of the traditional assumptions and practices, and it is asserted that it

also threatens to dilute the resources and the prestige previously associated with the staff and students in those elite systems.

2.4 Responses to drivers of change

2.4.1 Competition – market

Raciti (2010) notes that the Australian higher education literature identifies a number of critical turning points in the sector, or what many have described in recent times as arguably resulting in changes to the character and hierarchy of higher education institutions. Raciti contends that this has included the partial commercialisation and corporatisation of higher education institutions in the 1990's, introduced to Australia the notion of the academic enterprise (Symes 1996; Marginson 1998). Universities at the turn of the 21st Century began to use marketing strategies to create a competitive advantage in the marketplace. The need to adopt marketing strategies was not only to protect the undergraduate student 'consumer' base that was under threat by intensified competition, but to also consolidate a position in the market. Universities have committed and continue to commit significant resources to this end.

Also, Favaloro (2015) discusses the actions by universities in response to the market in the Australian higher education sector. (Whereas, Bok (2003) specifically discusses the implications of 'commercialisation' in an even broader 'marketplace'.) Favaloro focusses on the marketing investment patterns of universities and the levels of student growth as a return on marketing investment, in an environment of increasing competition. Elsewhere in this chapter we have referred to certain government policy interventions that had the effect of reinforcing the creation of a higher education market and forms of competition. This became particularly so under the implementation of the Bradley Review (2008) recommendations and a form of demand-driven system. (Even under a 'capped' system of domestic student places there was still a certain level of marketing and competition to ensure that one filled those student places.)

What of the role of university rankings and the market? Dowsett (2020) examines the role of global university rankings and their influence on the strategic planning of universities. From this study it can be concluded at least to some extent that rankings can be influential in affecting the perception of universities in terms of their attractiveness to prospective students and other stakeholders, thus having at least some influence on the strategic plans of universities. Dowsett cited Collins and Park (2016) in relation to this point: ... surveys have confirmed large numbers of would-be students consider ranking results when choosing either destination country or institution (Laird, 2007) as systems conveniently and 'coherently arrange the huge range of materials and information ... about universities'.

... Researchers have noticed that Australia uses results 'as part of its export machinery and branding too.' (Robertson & Olds, 2016) Rankings are of course not the sole determinant in affecting these market decisions on the part of 'consumers' and other stakeholders but they are interestingly, none the less, influential.

2.5 New and emerging types of university

As discussed in the preceding part of this research, there have been many and diverse drivers that have shaped the form of the modern university; forms of university that include, for example, notions of academic capitalism, the enterprise university, and the entrepreneurial university. In their seminal work on the enterprise university Marginson and Considine (2000) regard alternatives such as 'academic capitalism' (Slaughter and Leslie, 1997), the 'entrepreneurial university (Clark, 1998) or 'corporate university' as being terms that all suggest a one-dimensional institution solely dominated by profit-seeking, and organisational culture totally reduced to the business form.

2.5.1 Enterprise University

Whilst still presenting other important dimensions of the university: an active and constructive role in the economic and social role of their communities, the enterprise university describes a form of university that has a focus in managerialism (not necessarily leadership), governance and the market. That focus

manifests itself through a strong executive control; missions and governing bodies; additional Vice-Chancellor's advisory committees or 'shadow structures'; dual academic structures (e.g., Cooperative Research Centres and soft funding entities); and a redefined internal economy, or "pseudo market" in fee incomes.

Even though the Enterprise University presents us with many complex management dimensions, when viewed as a whole the enterprise university itself could perhaps be reduced to a single inseparable dimension comprising a focus on managerialism, governance, and the market. This could also be characterized as a model that encompasses the functional aspects of a university, as opposed to also including the philosophical, or foundational, aspect of a university.

The 'enterprise university' ("Enterprise University") as conceived and described by Marginson and Considine (2000), perhaps, could be described as a strong example that encapsulates many of the features of the university that directly relate to university responses to the more recent forces and change drivers. The Enterprise University is very much shaped or 'institutionally transformed' through a focus on governance and institutional cultures (through this researcher's own experience, this has to some extent, being enabled through application of 'core attributes' to all staff in the university, and administering university 'culture surveys'). This is all performed through the perspective of executive leadership and decision-making systems – including consideration of competition between universities, developing managerial strategies, and developing an institutional identity and at times reinventing the institution – adding to this, developing a university 'brand' (in the market-facing sense).

The Enterprise University is largely characterised by its strong executive control, missions and objectives that tend to be more 'corporate' in character, (as noted) additional Vice Chancellor's advisory committees or 'shadow structures' (that are not part of the university's formal governance), internal economies which include 'pseudo-markets' in fee incomes (e.g. the education of international students),

and a style of quality and accountability tending towards a private sector and culture of 'economic consumption'.

Duke (2002) suggests that Australia has its own vein of critical and reflective literature, notably in more recent years Coaldrake and Stedman (1998, also 1999), Coady (2000), and Marginson and Considine (2000), mostly at a more operational than philosophical level. The term operational could also be equated to Scott's (1984) use of the word "functional".

It is possible to assert that a university may be an enterprise university, whilst maintaining the character of a University. The core elements of the enterprise university are tending towards being operational in nature, or in Scott's (1984) terms, functional.

2.5.2 Entrepreneurial University:

Clark's (1998) representation of the entrepreneurial university is a model that displays a number of different and complex dimensions. In his seminal work, based on an analysis and case studies of specific European universities, he sets out five irreducible elements as the necessary actions for transformational change to an entrepreneurial university: a strengthened steering core; an expanded developmental periphery; a diversified funding base; a stimulated academic heartland; and an integrated entrepreneurial culture. These elements or 'pathways of transformation' are used by Clark to structure his case study accounts of ten to fifteen years of transforming development in five institutions. Following his analysis of these case study accounts, Clark (1998) felt that there were further compelling questions to be addressed: "why universities around the world seem to be under increasing pressure to transform themselves. Is there now something so threatening about their situation that it virtually impels them to move toward an active, even entrepreneurial, posture?" To explain this response, even to the extent that universities feel the need to "take steps to alter their character", Clark describes this in terms of 'an imbalance thesis', a demand-response imbalance in the environment-university relationship. Put simply, the *demands on universities outrun their capacity to respond*. These demands include the

demand for more students (and students of different types; an increasing number of segments of the labour force demand graduates trained for specialised occupations; 'patrons' or stakeholders, old and new, demand more higher education (often at a lower cost, especially in the case of government); and *knowledge outruns resources*, including the spread of disciplines, the "production, reformulation and distribution of knowledge". Clark contends that these four broad streams of demand converge to create enormous *demand overload* on universities. Universities find that they have limited resources with which to respond – traditional funding sources are limited – university infrastructure becomes a constraint – the usual decision-making is "sluggish", and the committee structure provides a further 'bottleneck' to the flow of decisions. Where is the answer? Clark examines the search for System Solutions (such as in national systems of higher education), and the Entrepreneurial Response. Systems of higher education can be 'blunt instruments of reform' in efforts to restructure higher education as part of an overall differentiation response (that is, enabling universities to differentiate themselves) but can in some cases serve to somewhat limit the demands in universities. However, systems operating from above can have difficulty in being a catalyst for local initiatives. The differentiation response seems to be best achieved at the level of the individual university. So, in relation to a differentiation response on the part of universities, how can they shift from a passive mode or 'drifting' to an active mode? (Systems, including national systems can assist in clearing the way by reducing state mandates and providing incentives, but on universities, Clark suggests, can take the necessary, essential actions – what he calls the Entrepreneurial Response.) This response can be framed in terms of Clark's (1998) Strengthened Steering Core; Enhanced Development Periphery; Diversified Funding Base; Stimulated Academic Heartland; and Entrepreneurial Culture:

- Strengthened Steering Core: including, *the administrative backbone fused new managerial values with traditional academic ones. Management points of view, including the notion of entrepreneurship, were carried from the centre to the academic heartland, while faculty values infiltrated the management space.*

- Enhanced Development Periphery: ... *the new peripheries ... the developmental peripheries* have a valuable common outcome: they move a university toward a dual structure of basic units in which traditional departments are supplemented by centres linked to the outside world. The matrix-like structure becomes a tool for handling the inevitable growth of the service role of universities. These may still consist of outreach activities such as contract research, contract education, and consultancy. This periphery may bring a new capacity to bring new modes of thinking and problem-solving.
- Diversified Funding Base: rather than passively falling in line with financial increases and decreases (as determined by governments), actively intervening to develop additional lines of income – thus also increasing university discretion.
- Stimulated Academic Heartland: where academic departments fuse their new administrative (entrepreneurial) capability and ‘outreach mentality’ with traditional outlooks in their fields – strengthening “selective substantive growth in basic units”.
- Entrepreneurial Culture: especially in universities, for an institutional idea to gain traction it must spread amongst the many participants and link with other ideas. – with the related ideas becoming expressed in the numerous structures and processes – becoming enduring, possibly becoming institutional *beliefs*, and spreading to become a new *culture*, leading to a cultural transformation.

Interestingly, even though Clark (1998) usually uses the term ‘entrepreneurial’ there are occasions when he also refers to the ‘enterprise’. His framework includes threads of references to processes and managerial values – perhaps, there are some parallels between Clark’s entrepreneurial university and Marginson and Considine’s (2000) ‘enterprise university’, notwithstanding their statement that the entrepreneurial university is one dimensional in their view.

2.5.3 Corporate University

Waks (2002) describes three types of 'corporate university', whereas, by way of contrast Prince and Beaver (2001) focus on the organisation that only and wholly exists within the for-profit corporation. Waks particularly describes the positioning of the corporate university as what he refers to as 'shadow organisations' of *mainstream universities*, and the implications. He describes the corporate university as comprising the three types:

1. "Established, mainstream, non-profit universities adapting to economic and technological pressures by adopting managerial practices of modern for-profit corporations,
2. Newly established, highly innovative universities that operate as for-profit corporations, but satisfy the political and legal requirements for university status, and meet the standards of accrediting bodies (e.g. the University of Phoenix), and
3. New educational organisations operating within, and providing education and training services for for-profit corporate firms (e.g. Marriott University)."

Waks notes that organisations of the types 2 and 3 provide a different 'product' than traditional universities. Nonetheless he contends that they "subvert" traditional academic practices: recruitment and retention, academic standards, pricing and managerial culture. He uses the term 'shadow' to develop a framework that connotes the position of corporate universities in three different ways: possibly being presently obscured by mainstream universities (that is, being in the shadow of), being a reflection of mainstream universities, and they '*foreshadow*' or "pre-figure" mainstream universities of the future. Interestingly, the organisation of type 1 bears many similarities and parallels with Marginson and Considine's Enterprise University, particularly in relation economic pressures (and incidental pressures) and the adoption of managerial practices of modern for-profit organisations.

Prince and Beaver (2001) examine what they describe as the phenomenon of the corporate university and the emerging corporate learning agenda that lies behind it. In the USA corporate universities are

the fastest growing sector of higher education (Hoare, 1999), with almost 1800 operating in the US alone (Bradshaw, 2000). It has been typically regarded as a particularly American creation - corporate universities are now to be found in many of the world's major corporations. They argue that part of this growth can be ascribed to a growing recognition by many senior managers of the positive strategic impact corporate universities can have on their companies. This can be viewed as a consequence of organisations recognising the power of learning and knowledge as drivers of competitive advantage. This research contends that this growing recognition is leading to the emergence of a sophisticated form of corporate university, one that is predicated on the principles of organisational learning and knowledge management. Prior to the mid-1990s, in the United Kingdom it would have been reasonable to say that corporate universities were regarded as a US phenomenon, if not creation – being regarded at that time as little more than re-badged training departments. That may have been the case in the past, in recent times there has been increasing pressure for there to be serious attempts to create actual 'corporate universities' to manage the diverse range of individual learning needs and organisation development requirements. (This researcher experienced a version of this transformation as an employee of EDS, an American, multi-national IT company, with its Asia Pacific Education Centre based in Australia, becoming part of EDS's (now HP) global EDS University.) Many researchers have highlighted the difficulty in defining the corporate university – many corporate universities would have difficulty in meeting the requirements of an Oxford Dictionary definition of a 'university' but that is not their intention. It is more as an indicator of a desire, possibly an aspiration or symbolic one, to position learning within the organisation. The term corporate university is applied in diverse ways, including as an overarching designation for formal learning activities – sometimes the term is not used at all but is used interchangeably with a number of alternatives. For example, Virtual University by BAE Systems, Corporate Business School by Ernst & Young, and Learning Centre by General Motors – with similar or the same objects in mind. The corporate university could also be regarded as not necessarily being a physical entity but also a concept to describe organised learning, with some of these organisations

being intended to facilitate organisation processes (Meister, 1998; Bachler, 1997). By way of illustration we point to Prince and Beaver's (2001) model for a corporate university, comprising four key process areas (as below, in Figure 3).

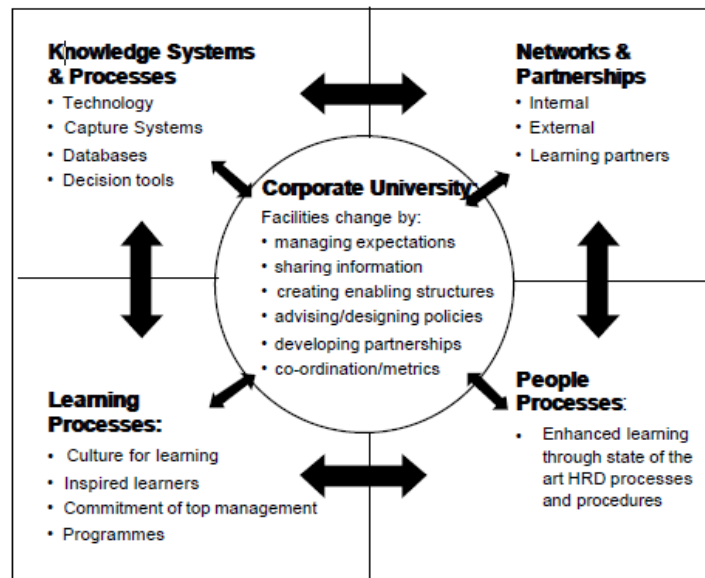


Figure 3: Prince and Beaver (2001): The key processes of a world-class corporate university

El-Tannir (2002) provides additional examples of the sort of organisation, physical and virtual, described by Prince and Beaver: Motorola University, a widely benchmarked corporate university with workers, customers and suppliers taking courses there; Booz Allen and Hamilton's Centre for Performance and Excellence, resulting from a renewed focus on training and development, driven by its headquarters as part of a 'people strategy', and Bank of Montreal's Institute for Learning, as part of a new strategic focus in the 1990's, focussing on employee development.

Prince and Beaver's corporate university strongly aligns with Waks's type 3 organisation. However, we note that Prince and Beaver's corporate university processes model (Figure 3), includes partnerships and anticipates engagement with other organisations, which has become a hallmark of traditional universities, arising out of a range of pressures – this will be described later in this research. From this researcher's corporate experience, these types of organisations (corporate universities) do not operate in isolation from one another. EDS (now HP) (and its EDS University had many relationships with

traditional universities in the US), and in Australia, EDS University had a memorandum of understanding with a South Australian university, where successfully completed modules in that corporation's graduate training program (also known as its Industry Analyst Development program), would qualify for 'recognition of prior learning' in that university's MBA (Master of Business Administration) Program.

2.6 Significant types of responses, reactions and activities

In addition to universities responding through the creation of what might be described as the creation of different specific types of universities (some of which have been described above), some of the university responses to change have been described in terms of activities, or akin to behaviours – acting more entrepreneurially, like a business, being innovative, adapting, etc. In this section we canvass a selection of these 'behaviours' and their indicative literature sources.

2.6.1 Entrepreneurial

There appears to be very little integration of the literature and research concerning entrepreneurship, and the works concerning universities, even those works that purport to directly address the issue of entrepreneurship and universities, such as Clark's (1998) seminal work on entrepreneurial universities, *Creating Entrepreneurial Universities: Organisational Pathways of Transformation*. There is little examination of the entrepreneurship literature and research other than to say that he had "chosen 'entrepreneurial' over 'innovative' as the organising conception for [his] book because it points more powerfully to deliberate local effort, to actions that lead to change in organisational posture."

Even though Clark (1998) does not explicitly draw connections between the specific elements that have typically, but not necessarily consistently or without contention, been used to describe entrepreneurial behaviour or strategy, Clark's (1998) 'pathways' appear to be consistent with much of the literature that underpins our understanding of entrepreneurship. For example, Schumpeter's (1934) concept of entrepreneurship and the dimensions of opportunistic behaviour and entrepreneurial profit. This is

discussed in detail in a later part of this section. Other specific instances arising out of Clark's (1998) analyses include "the strengthened steering core" as it relates to the centralisation of power, in say, the hands of a chief executive; and the "expanded development periphery" has parallels to being constantly attuned to environmental changes. Growth is often considered as a key measure of entrepreneurial activity, and that is certainly evident in Clark's (1998) work.

A preliminary but critical question is: how would we know when an organisation, in this case a university, is behaving entrepreneurially? What are the parameters that we would apply in trying to make that assessment or determination?

Related lines of inquiry concern whether there is a single body of literature and research concerning entrepreneurship; are there schools of entrepreneurship as Mintzberg (1998) asserts in relation to 'strategy', or does the research merely present or emphasise different aspects of entrepreneurship or the entrepreneur.

There have been a number of attempts to resolve the first of these questions.

Schidt, Zahra & Sillanpaa (2006) cited that: "Research on entrepreneurship has often been characterised as diverse, fragmented and still in ferment (Gartner, 2001; Shane & Venkataraman, 2000)." Through their analysis they describe areas of literature and research in terms of the ten most cited groups of literature in entrepreneurship: entrepreneurial networks and resource accumulation; corporate entrepreneurship and venturing; conceptualisations and entrepreneurial processes [Schumpeter, 1934]; value creation from corporate entrepreneurship; alertness, opportunity creation, and creative destruction [Schumpeter, 1934]; psychological aspects of entrepreneurs; qualitative research methods; entrepreneurial firm survival and growth; societal consequences of entrepreneurship; and Born-Global firms. Their research indicated interdependencies between certain of these groups – the most central groups being entrepreneurial networks and resource accumulation, conceptualisations and entrepreneurial processes, value creation from corporate entrepreneurship, and

alertness, opportunity creation, and creative destruction, bridging a number of the smaller or less central groups.

Not dissimilarly to Schidt and others (2006), and Gartner, Davidsson & Zahra (2006) found that:

“[t]here does not seem to be a number of distinct [entrepreneurship] scholars who do not have significant intellectual overlaps in citations in the entrepreneurship field. ... Convergence, then, in terms of developing a community of entrepreneurship scholars, seems to be more about the development of communities of scholars that share similar interests in specific interests in the entrepreneurship area. These observations would support critics who see entrepreneurship as a set of loosely connected research groups that lack an organising framework or a dominant paradigm.”

Reader & Watkins (2006) explored the structure of the “metafield” of entrepreneurship cluster and factor analysis: seeking to identify groups of entrepreneurship authors whose work falls into similar categories; identify themes that characterise and define entrepreneurship in terms of the publication record.

Perhaps most conclusively, but within the limitations of their co-citation analysis method, Gregorie, Noel, Dery & Bechard (2006), “[f]ound that amongst the 960 articles the following works were the key anchors for the sets of references that were identified; the anchoring works are: Schumpeter’s (1934) Theory of Economic Development; Penrose’s (1959) Theory of Growth of the Firm; Vesper’s (1980, 1990) New Venture Strategies; McClelland’s (1961) Achieving Society; Porter’s (1980) Competitive Strategy; McMillan, Siegel and Narashima’s (1985) article on decision criteria used by venture capitalists; Pairs: Aldrich and Zimmer’s (1986) and Birley’s (1985) articles on the role of social networks in entrepreneurship; and Yin’s (1989) book and Eisenhardt’s (1989) article, on the relevance, use and design of case study research.”

They concluded that there has been convergence in entrepreneurship research over the last 25 years. However, one would expect that there may be at least some contention amongst researchers in this field concerning these key anchors.

Under the broad category of entrepreneurial responses, it has been suggested that perhaps universities had adopted an 'entrepreneurial orientation'. To, where necessary, distinguish from the forms of entrepreneurship broadly discussed above, Set out below are the elements that describe the nature of the 'entrepreneurial orientation construct' as formulated by Lumpkin & Dess (1996) flowing from other research as acknowledged by them: Autonomy (i.e. the "freedom granted to individuals and teams who can exercise their creativity and champion promising ideas that is needed for entrepreneurship to occur"; "the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion"); Innovativeness (i.e. "a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes"); Risk Taking ; Proactiveness (e.g. "proactiveness may be crucial to an entrepreneurial orientation because it suggests a forward-looking perspective that is accompanied by innovative or new-venturing activity"; taking the initiative); and Competitive Aggressiveness (i.e. "a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace").

2.6.2 Academic Entrepreneurship

Bok's (2003) significant treatise on commercialization and the marketplace canvasses the breadth of commercial activities that a university might undertake, including selling its knowledge and expertise in various forms to co-branding or branding with commercial partners, even on the athletics field. In this section, we focus on a particular form of commercialization. Arguably, commercialization can be viewed as being integral to the objects of the university or the 'idea' of a university, and as a response to a range of drivers in the environment. For this purpose, we elaborate on the concept of 'Academic

Entrepreneurship' (Scott, 2004; Wright & others, 2007). Scott describes the formation of university spinoff companies as a means of commercializing the university and 'wealth creation' – in this case, the formation of a new company for the purpose of exploiting a "piece of intellectual property created in an academic institution". This definition may differ from that used by other researchers. We also argue that this is an important strategy to diversify a university's sources of income, perhaps in response to other pressures, and also as a means of meeting an object of the university in terms of knowledge dissemination. University spinoffs may have a broader impact: economic impact, benefit society and local economic development, and of course, produce income for the university. Of course, commercialization can occur without the creation of a spinoff: for example, through the direct sale and assignment of intellectual property to a commercial entity, or through the provision of university expertise in the form of consultancy services. Wright examines academic entrepreneurship – of note is the comparison of a number of policy interventions on the part of a number of European countries affecting, for example, certain aspects of intellectual property linkages between universities and public research organisations, and public funding to invest in spinoffs. This emphasized the basis, at least in Europe, that most government initiatives aimed at promoting spinoffs share the idea that economic growth depends on "the development of technology transfer between public research and industry, especially through the creation of new technology-based firms." As part of this research they identified types of spinoffs, based on different perspectives: resource-based (based on organizational resources and capabilities), business model (based on a value proposition, and identification of a market segment, place in the value chain, cost structure/profit margin), and institutional (to exploit IP embedded in a parent organization) perspectives. To some extent Shane (2004) and Wright & others (2007) examine much that might be in common and at the same time examine quite distinct dimensions of the spinoff, their environment and their role. For this research, particularly when we start to position these sources and the perspectives of current university leaders (through their interviews) a number of thematic linkages and contrasting elements will become apparent.

2.6.3 The Adaptive Organisation

Sporn (1999) also notes that even though universities have proved to be resilient over several centuries, facing socioeconomic and political change, they still face unprecedented changes. Sporn canvasses the need to respond to this changing environment through successful organisational adaptation. In the studies comprising her 1999 research Sporn examined the adaptation of a range of higher education institutions across the US and Europe. In relation to the changes in the external environment affecting universities there were five major trends: restructuring of the economy; changing role of the state; shifting demographics; new technologies and increasing globalisation. In response to these, Sporn found “common patterns of institutional responses to these challenges”(p.15), and found the following ‘adaptation strategies’ to be most prominent: university reorganisation; transformed leadership, management and governance (including new forms of governance); enhanced quality, program review and evaluation (including the creation of new programs); applied research and technology transfer (including an increased emphasis on applied research); financial accounting and fundraising systems (e.g. identifying new sources of funds and the more effective use of existing funds); and personnel restructuring (including increased part-time staffing and outsourcing administration tasks and processes). Further, in 2001 Sporn examined new organisational forms which might better support and enhance trends towards more entrepreneurial universities. Interestingly, Sporn assumes the linkage between the university organisation and its environment and shows the connection between them below in Figure 4.



Figure 4: Framework for adaptation in higher education (Sporn 1999)

Sporn used this approach to collect data from six universities as case studies comprising 180 interviews. The analysis of these case studies led her to the development of a theory and the six propositions for building adaptive universities which are summarised as follows in Table 3:

Critical Factors	Propositions
Environment	Adaptation at universities is triggered by environmental demands which can be defined as <i>crisis</i> or <i>opportunity</i> by the institution.
Mission, goals	In order to adapt, universities need to develop <i>clear mission statements and goals</i> .
Culture	<i>An entrepreneurial culture enhances the adaptive capacity of universities.</i>
Structure	<i>A differentiated structure enhances adaptation at universities.</i>
Management	<i>Professionalized university management helps adaptation.</i>
Governance	<i>Shared governance is necessary to implement strategies of adaptation.</i>
Leadership	<i>Committed leadership is an essential element for successful adaptation.</i>

Table 3: Sporn (1999): Towards a theory of adaptation – critical factors and propositions for Adaptive Universities

From this study Sporn concludes that there are clear implications for adaptive universities which include a “picture of what *new university* could look like.” (p. 132) The underlying goal would be to maximise flexibility and adaptation to ensure survival in an internationally competitive market. There are a number of clear underlying themes and concepts arising out of Sporn’s findings of relevance to this research: adaptive universities and recognition of a market environment.

2.6.4 Internationalisation – students

A transformative response by universities has been the rapid increase in enrolments of international students. This has been largely driven by government policies affecting funding and resources to universities, and as a direct response universities have sought to diversify their sources of income –with a key responsive strategy being the pursuit of international student enrolments. Some like Clark (1998) might argue that is universities being on the pathway to becoming Entrepreneurial Universities,

whereas others might suggest that this is merely universities becoming more business-like or even becoming businesses. Irrespective of which case applies, student internationalisation has become a key feature of Australian universities and the Australian higher education landscape. There are a plethora of sources identifying international students as a 'lucrative market' for Australian tertiary institutions (Ewart, 2007), and the risks, including the risks associated with changing visa conditions for example (Mather, 2010), and quite comprehensively scoping the opportunity and the implications of a 'downturn' and the future (Deloitte Access Economics, 2011).

To underscore this, data provided in 2020 show that international student fees per university represent a maximum of 35%, and an average of 22%, of total university income. This research was conducted prior to the Covid-19 pandemic which has shown the high risks associated with an over reliance on international student enrolments and income – this was of course already evident prior to this pandemic during the Global Financial Crisis (or GFC), 2007-2008, a period of extreme stress in global financial markets and banking systems.

Whilst the internationalisation of students has been noted and described here, it is discussed (and analysed) more fully in chapter 5 of this research (Analysis & Discussion).

2.7 Development of the higher education environment and systems

There is an interesting contrast between the development and evolution of universities in Australia, and universities in other regions. For example, the role of private universities in Australia is relatively insubstantial. This is to be contrasted with Altbach and Umakoshi's (2004) review and analysis of the development of a range of Asian universities. Two key factors have influenced the typology of many Asian universities; first, where relevant, the influence of western colonialism, and secondly, the stage and rate of economic development. In addition, the role of private universities is an important dynamic in that region. This is particularly evident from the examination of transnational models across that

region, applying distinctions between private-peripheral type, private-complementary type, and private-dominant type, to describe the dominant university systems within that region.

However, having noted some of the differences between these approaches, the economic influences in Australia should not be dismissed out of hand. It could be contended that there has been a strong economic influence manifested through Australian government policy, and that policy has been exercised as a function of economic factors. This is albeit a less direct linkage than perhaps in the case of most of the Asian states examined by Altbach and Umakoshi (2004).

Of particular note and relevance to this research are the detailed studies by Forsyth (2015; 2014) concerning the development of higher education in Australia. Forsyth identifies a number of key features and points of transition in the higher education system that may be summarised against the following thematic areas:

- *Expansion of higher education as a tool for social and economic transformation:* “The expansion of higher education in Australia, as elsewhere, has been a tool for social transformation a much as for economic development. Such sociological outcomes are well known. The post-war period, for example, higher education was a means for supporting the moral and employment prospects of returned service personnel, as well as a method for growing the technological capacities of the post-war labour market. The American GI Bill had counterparts in many other nations and in Australia was known as the Commonwealth Reconstruction Training Scheme (CRTS). In most countries this post-war expansion was the decisive moment for twentieth-century universities: from then on, continual growth of tertiary education was largely taken for granted as a social and economic good. As Martin Trow famously argued, expansion led to a more egalitarian labour market, better suited to industrialised economies than the hierarchies that resulted from older, more elite systems of higher education.” (p. 365)

- *Values of universities and new imperatives – social inclusion:* “The ways in which universities debated and used their power over admissions in the past has implications, moreover for the values inherited within universities in the present as they face new social inclusion imperatives and, in Australia at least, intention for another phase of university growth.”
- *Reasons for growth: reconstruction; creation of national system:* “Growth in Australian universities was a result of many causes, including sociological, cultural and economic changes over the twentieth century. ... By 1949 participation had tripled as a result of the Federal government’s post-war reconstruction training scheme.” (p.367) ... “The next decade saw even more substantial growth, fuelled by the decision of the deferral government in 1957 to fund universities as a national system, rather than to rely solely on the six state governments to support higher education.” (p. 366)
- *Employment and the knowledge economy:* “Labor education policy that encouraged prolonged education sought on the one hand to reduce unemployment figures and on the other to encourage the levels of education to participate in the global knowledge economy; it was, at its core, an attempt to shift the basis of Australia’s economy away from primary industries. ... Despite low growth in the early and mid-1980s, the 1987 Dawkins reforms triggered a new “massification” of higher education (pre-1990s growth was not perceived as massification, as it was in some other countries, so that in 2012 participation exceeded one million, including more than 850,000 domestic students.”
- *Social goals:* “The first key expansion in Australian higher education, after the Second World War, had social as well as economic goals. The Curtin/Chifley Federal Labor Government (1941-9) actively sought to expand opportunities for working-class students to attend university.” (p. 369)
- *Supporting changing economy:* “Increasing access to university could support a changing economy, shifting the workforce towards “white-collar” occupations.” (p. 370)

- *'Applied' knowledge*: "Across higher education a debate raged about the place of technological knowledge in universities. This went to the place of the humanities in "civilising" the nation as well as to the legitimacy of university authority, which many felt was located in "pure" rather than "applied" knowledge. ... It was economic need that drove universities towards increased inclusion of technological knowledge, but social outcomes – the growing inclusion of the "poor but talented student" – increasingly masked this disciplinary drift." (p. 374)
- *Immigration; flexible modes of teaching*: "In the context of the nation's labour market being bolstered by substantial government-sponsored immigration (particularly from non-English speaking European nations: E.g. NSW University of Technology "to offer evening classes for working students also attracted migrants who were able to work full-time while still completing tertiary studies." (p. 374) ... "Following the success of evening classes in catering to migrant students' needs, the University of New South Wales Admissions Committee continued to consider offering flexible modes of study as a way to support admission of students from a wide range of backgrounds."

2.8 Summary

This research is premised on an exploration of some key themes that characterise the university and its identity, and its responses to recent challenges. The aim was to identify the main issues that writers concentrated on. Therefore it is not an exhaustive review of all of the literature covering all of the areas that might be incidental to this research – it focusses on the areas and issues that are significant – if you will, a thematic approach to the literature in some sense.

The research literature sources paints a complex picture in terms of the origins of the university, (what, if any) connections remain to the 'modern' university, and a multitude of forces changing and shaping the university – with the universities themselves responding in diverse ways. Whether this has resulted in different types of universities (such as the Enterprise University, or Entrepreneurial University, etc.) is

still a matter for debate – or do these types merely represent the responsive behaviours or actions, reactions of the universities to change?

In the Australian context, which is the scope of this research, there are also diverse university stakeholders, but in terms of driving change, the national government remains the dominant stakeholder. Even on the basis of the literature, we start to see a picture of universities responding to change in a multitude of ways. We see the dependencies between these change drivers and specific responses. An example follows, as described in Figure 5 below.

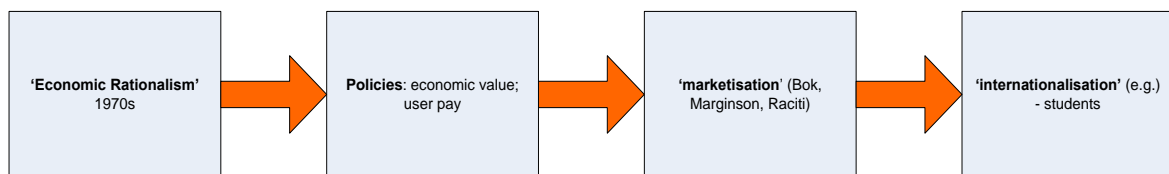


Figure 5: Macro view: example, dependencies between drivers and responses to change

The literature assists us in seeing a connected perspective of the domains encompassing the literature, even though as previously noted, this is intentionally an indicative view, to provide a sense of the literature domains relevant to this research and the core elements in relation to them. The diagram below (Figure 6) provides a version of that indicative view of the literature domains and how they might relate to the research question domains.



Figure 6: Indicative 'map': literature source domains and areas

It is also useful to note that even the nature of the literature that is relevant to our research questions is changing, and further points to the changes affecting universities. Management consulting firms have entered the field, providing an analysis of the university 'industry' as an industry, envisioning what the university of the future will look like, assessing the export value of universities (their contribution to Gross Domestic Product, GDP), distilling the value of a degree as a public benefit and the private benefit (or associated cost to the student, the fees to be charged) – firms such as KPMG, Deloitte and Ernst & Young have all entered the fray with their respective subject matter experts.

This review has identified a number of main areas of interest, and other areas that form layers relating to the questions being considered: the nature and character of the university (Newman, Humboldt and contemporary perspectives); key drivers of change (Government policy in its various and diverse forms); and adaptations as responses to change (whether explicitly taking the shape of Sporn's

adaptations, assuming the form of particular types of universities, or as specific reactions, responses to change: internationalisation for example.)

3.1 Introduction

This chapter sets out the elements comprising and supporting the research methodology for this research, which appear in Figure 7, below. All of these elements flow from the overarching question (and its subsidiary research questions) that this research aims to address, and the exploratory nature of this research, particularly, through the lens of university leaders:

How does the university respond to the many forces driving change, whilst recognising its foundational characteristics and values?

And the subsidiary research questions:

- RQ1: What are the characteristics or elements of the university that define the university, as unique from other institutions or organisations?
- RQ2: What have been the critical or transforming influences or drivers that have caused significant change to universities (or the ways that universities behave) (“transforming drivers”)?
- RQ3: How have universities responded to these drivers or how have they changed?

This exploration is conducted through the perspectives (or as mentioned above, the lens) of university leaders – put another way, through their ‘lived experiences’. Exploratory research aims to highlight and explore the un-explored and un-interpreted phenomenon to better understand the problem (Cavana & others, 2001; Marshall & Rossman, 2006) – exploratory research provides in-depth, rich, data and descriptions.

Elements of Research

Carter and Little (2007) identify three fundamental facets of research (epistemology, methodology and method) that provide the necessary framework for planning and implementing (and evaluating) qualitative research. There are various ways of defining each of these facets, not altogether without debate. However, for example, they may be expressed as: *epistemology* being the study of the nature of knowledge and justification (Schwandt, 2001); *methodology* as a theory and analysis of how research should proceed (Harding, 1987), analysis of the assumptions, principles and procedures in a particular approach to inquiry (Schwandt, 2001), or the study, the description, the explanation and justification of methods (and not the methods themselves) (Kaplan, 1964); and *methods* are techniques for evidence (Harding, 1987), or procedures, tools and techniques of research (Schwandt, 2001), or considered as research in action.

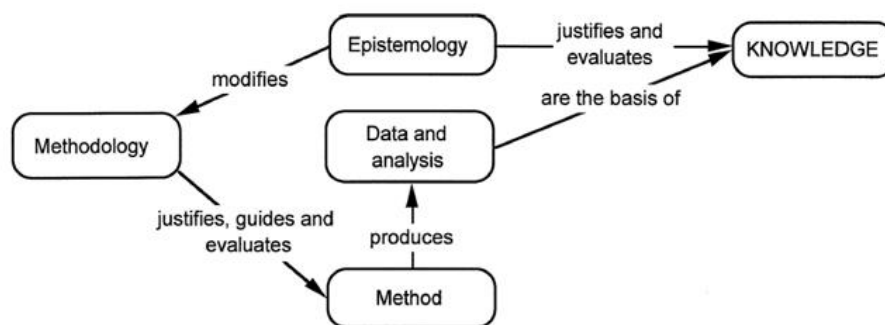


Figure 7: Carter & Little (2007): The Simple Relationship between Epistemology, Methodology and Method

Not dissimilarly, usefully Crotty (1998) simply sets out the elements of research showing their linkages and relationships in the diagram set out below (as Figure 8), comprising the epistemology, theoretical perspective, methodology and methods, where:

- *Epistemology* is concerned with the way knowledge is acquired. It depends upon the relationship between the researcher and the researched, and how the researchers perceive that reality (Creswell, 2007; Punch, 1998). Epistemology is the relationship between the

researcher and the reality, and how this phenomenon of reality can be explored or unknown (Carson & others, 2001).

- *Methodology* is concerned with the process and the *method* by which the researcher acquires knowledge about the world (Creswell, 2007; Edwards & Skinners; Punch, 1998) that may be helpful in answering the research questions and objectives of the present study.

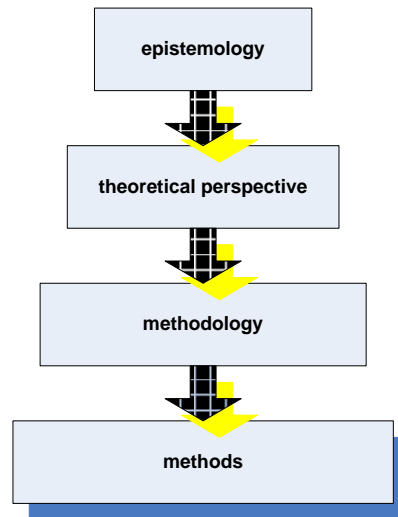


Figure 8: Crotty (1998): Model of research elements

In turn, the following section describes the research paradigm of this research interpretivism, investigating the nature of the realities of these lived experiences. In interpretivism, phenomenology is regarded as the appropriate approach to investigating and exploring the lived experience. It is this approach that has been adopted for this research. It is through the lived experiences of university leaders that we explore the foundations of the university, transformational drivers of change, and university responses to those drivers – university leaders are influential in relation to all of these dimensions (to varying degrees).

3.2 The Research Paradigm

Qualitative research may be located in any one of three paradigms: positivist, interpretivist, and critical (Denzin & Lincoln, 2003). A paradigm is a structure or a set of suppositions and ideas that provides a

pathway to see what the world looks like when its scientific aspect is related to its assumptions. It also provides questions and puzzles to be revealed and interpreted and indicates the research methods to be used (Neumann, 2011).

A 'paradigm' has also been described in the following ways:

- Guba and Lincoln (1994) defined a paradigm as a '*set of basic beliefs (or metaphysics) that deals with ultimates or first principles*'.
- Patton (1990) argued that it is a view or perception regarding the complex phenomenon of the real world.

Neumann (2011) differentiated interpretivism and positivism philosophical paradigms - the positivist view of the world is objective where behaviour and cause and effect can be measured and human activity can be predicted – there is more focus on the mechanisms of the world scientifically, and concentrated on calculation and estimation of the occurrence of events in the world. Whereas, an interpretivist view of the world allows for subjective values, where individuals are understood to form their own reality of the world in different contexts through interactions with others, in an interpretivist paradigm the researchers have no direct access to the real world – individuals are understood to perceive the world differently because of their own experiences and perceptions in different contexts.

These paradigms can be described or examined on the basis of the elements of ontology, epistemology, theoretical perspective, methodology and methods (Denzin & Lincoln, 2003; Punch, 1998). Sale, Lohfeld & Brazil (2002) describe the differences between these paradigms in the consolidation of elements by Khan (2014) set out below in Figure 9.

Positivism	Paradigm element	Interpretivism
Reality is independent of human perception	Ontology	Multiple realities and multiple truths/reality are socially constructed and constantly changing.
Investigator and investigated are independent entities.	Epistemology	Researcher and object are interactively linked/findings are mutually created within the context of the situation which shapes the inquiry.
Quantitative	Method	Qualitative
To measure and analyse causal relationships within a value-free framework.	Goal	Stress is on process and meaning.
Randomizations, blinding, highly structured protocols, and written or orally administered questionnaires with a limited range of predetermined responses.	Techniques	In depth and focus group interviews and participants observation.
Larger than qualitative sample/representative.	Sample Size	Small/purposeful/respondents with important information/not meant to be representative.

Figure 9: Khan (2014); Sale, Lohfeld & Brazil (2002): Consolidation of paradigm elements: Positivism and Interpretivism

Interpretivism

Foundational to the paradigm is the epistemology – in this case, ‘constructionism’. This is to a large extent a counterpoint to ‘objectivism’. In a constructionist view meaning is not discovered but constructed (Crotty, 1998). Constructionism asserts that meanings are constructed by human beings as they engage with the world they are interpreting – which contrasts with ‘objectivism’ (found in the ‘positivist’ stance). That is, in a constructionist perspective, meaning (or even, truth) cannot be merely described as ‘objective’ (nor can it simply be described as ‘subjective’). Meaning is constructed rather

than created. Constructionism necessarily brings together objectivity and subjectivity. Constructionism and the concept of 'intentionality' are reflective of one another – intentionality is a concept that has been applied in phenomenology, In this instance it is not used with purpose or deliberation in mind but rather in the sense of direction, 'moving towards'. Brentano (1973) noting that at a point in philosophy all mental phenomena have been described as having 'reference to a content, direction toward an object' – consciousness is always consciousness with respect to *something*. Husserl (1931) in fact describes intentionality as 'a concept which at the threshold of phenomenology is quite indispensable as a starting-point and basis'. However bringing together objectivity and subjectivity throughout the process is rarely characteristic of today's qualitative research. However interpretation as a means of making meaning is not tantamount to subjectivism.

The paradigm for this research is interpretivism, which explores the nature of the realities through the lens of the university leaders' lived experiences and their realities. The choice of paradigms flows from the research purpose, and the selected paradigm is the most appropriate to investigate the phenomena in the research (Creswell and others, 2007).

3.3 Methodology

Phenomenology

As previously highlighted, this research explores aspects of universities in an exploratory manner, and key to this research, this is particularly through the lens and lived experiences of university leaders.

Starks and Trinidad (2007) note that 'phenomenology' involves the use of close analysis in lived experiences to understand how meaning is created through embodied perception (Sokolowski, 2000; Stewart & Mickunas, 1974) – it also contributes to deeper understanding of lived experiences by exposing taken-for-granted assumptions about these ways of knowing (Sokolowski, 2000). Sokolowski (2000) writes in relation to phenomenology:

Phenomenological statements, like philosophical statements, state the obvious and necessary. They tell us what we already know. They are not new information, but even if not new, they can still be important and illuminating, because we often are very confused about just such trivialities and necessities.

Furthermore, in phenomenology reality is comprehended through embodied experience. Through close examination of individual experiences, phenomenological analysts capture the meaning and common features, or essences, of an experience or event.

Starks and Trinidad (2007) provide a further breakdown and summation of phenomenology into different dimensions or aspects. A number of these aspects have been selected and are set out in Figure 10, below.

Aspects	Phenomenology
Goal	Describe the meaning of the lived experience of a phenomenon.
Methodology (formulating the research question)	“What is the lived experience of (the phenomenon of interest)?”
Sampling	Those who have experienced the phenomenon of interest.
Interviewing strategy	Participant describes experience, interviewer probes for detail, clarity.
Analytic Methods (Decontextualization & Recontextualization; Process of coding, sorting, identifying themes and relationships, and drawing conclusions)	Identify descriptions of the phenomena; cluster onto discrete categories; taken together, these describe the “essence” or core commonality and structure of the experience.
Product	A thematic description of the pre-given “essences” and structures of the lived experiences.

Figure 10: Starks & Trinidad (2007): Aspects of phenomenology

Goulding (2005) highlights the roles of Husserl (1962) and Schutz (1966). They were critical to the development of this important approach to undertaking research that is phenomenology. Husserl's (1962) intention was to develop a schema for describing and classifying subjective experiences of what he termed the life world (Lengenbach, 1995). Schutz (1967) developed the approach as a method which incorporated details of experience often at the level of mundane everyday life. The lifeworld is defined as the world in which we, as human beings among fellow human beings, experience culture and society, take a stand with regard to their objects, are influenced by them, and act of them (Schutz, 1966).

Essentially, the goal of phenomenology is to enlarge and deepen understanding of the range of immediate experiences (Speigelberg, 1982). Further, Merleau-Ponty (1962) suggests that the results of phenomenological inquiry should be "a direct description of our experience without taking into account its psychological origins". Phenomenology therefore is a critical reflection on conscious experience, rather than subconscious motivation, and is designed to uncover the essential invariant features of that experience (Jopling, 1996).

As one of the major influences on phenomenological enquiry, Schutz proposed that individuals approach the life world with a stock of knowledge made up of common sense constructs and categories that are essentially social in action. These stocks of knowledge produce familiarity, but they are always incomplete and open-ended. Language is the central medium for transmitting meaning and as such provides a methodological orientation for a phenomenology of social life that is concerned with the relation between language use and the objects of experience. The meaning of a word is taken to be what it references, corresponds with, or stands for in the real world. This is based on the premise that the essential task of language is to convey information and describe "reality".

Phenomenology demands that intense reflection is an integral part of the process, but above all, the primacy of the objective experience is felt to be crucial. In phenomenology observation of how

participants live in their environment through time and space provides clues about how they might embody meaning. In a phenomenological study the objective of the interview is to elicit the participant's story. Both the researcher and the participant assume that their words will be understood as spoken and intended (that is, their words will speak for themselves). Generally speaking, phenomenological analyses produce rich thematic descriptions that provide insight into the meaning of the lived experience. Phenomenologies are often written as anecdotes or thematic stories, drawing on elements reported from different narrators to create a blended story.

In relation to the role of the analyst and assuring trustworthiness in the context of phenomenology, the researcher engages with the analysis as a faithful witness to the accounts in the data. Even as the researcher is immersed in the data, they must be honest and vigilant about their own perspective, pre-existing thoughts and beliefs, and developing hypotheses. In phenomenology researchers engage in the self-reflective process of "bracketing", whereby they recognise and set aside (but do not abandon) their a priori knowledge and assumptions, with the analytic goal of attending to the participants' accounts with an open mind (Gearing, 2004; Sokolowski, 2000; van Manen, 1990).

3.4 Primary Method – Thematic Analysis

3.4.1 Description

Even though 'thematic' analysis has been in use as an analytic concept since the 1970s, Patton (2002), Boyatzis (1998) and Braun & Clarke (2006) are amongst a number of researchers who have placed thematic analysis as a research method in its own right, providing a foundation, and associated procedures. This is similarly implied by Liamputtong and Ezzy (2005). According to Braun and Clarke, thematic analysis is a *method* for identifying, analysing and reporting patterns (themes) within data – it minimally organises and describes a data set in (rich) detail. In addition, it can be applied to interpret aspects of the research topic (Boyatzis, 1998).

Thematic analysis differs from other analytic methods that seek to describe patterns across qualitative data and are theoretically bounded - such as, for example, 'thematic' discourse analysis or grounded theory. Braun and Clarke posit that *thematic* analysis means that researchers are not obliged to be held to the implicit theoretical commitments of, for example, grounded theory. A range of different methods share a search for different themes or patterns across an entire data set, rather than with a data item such as "an individual interview or interviews from one person as in the case of biographical or case-study forms of analysis". In some sense they do overlap with thematic analysis. However, thematic analysis does not require the detailed theoretical and technical knowledge of approaches (such as in the case of grounded theory or discourse analysis). It offers a more accessible form of analysis – it can be applied to different theoretical frameworks.

Thematic analysis is a method that can be applied to "reflect reality and to unpick or unravel the surface of reality" (Braun & Clarke, 2006). Having said that, it is however important that the theoretical position of a thematic analysis is clear (as is its assumptions concerning the nature of the data, their reality).

Thematic analysis necessarily involves a number of key decisions, including:

- *Whether seeking a rich description of the data set, or a detailed description of one particular aspect:* a rich thematic description of the entire data set, so that the reader gets a sense of the predominant or important themes, or aim to use thematic analysis to provide a more detailed and nuanced account of a particular theme (or group of themes) within the data.
- *Inductive or theoretical thematic analysis:* that is, themes or patterns arising out of the data may be identified in two ways in thematic analysis. First, in an inductive or as suggested by Frith and Gleeson (2004) a 'bottom up' way, or in a theoretical or deductive, or as suggested by Boyatzis (1998), a 'top down' manner. In the case of the inductive approach, themes are seen as strongly linked to the data themselves (Patton, 1990), where coding occurs without trying to fit with a pre-existing coding frame. Whereas, a 'theoretical' approach there is a tendency to be

driven by the researcher's theoretical or analytic interest – for example, coding for a specific research question.

- *Identifying semantic or latent themes*: that is, the level at which themes are to be identified at a semantic or explicit level (that is, the explicit or surface meanings of the data), or a latent or interpretative level (including the underlying ideas, assumptions, and conceptualizations, and ideologies). (Boyatzis, 1998).
- *Epistemology: essentialist/realist or constructionist thematic analysis*: thematic analysis may be conducted with either of these paradigms.

In summary, thematic analysis involves searching *across* a data set (whether, for example, a number of interviews or focus groups, or a range of texts), to find repeated patterns of meaning.

2.4.2 A justification

Braun & Clarke (2006) note that thematic analysis generally offers an accessible and theoretically flexible approach to analysing qualitative data. It is appropriate to regard thematic analysis as a foundation method for qualitative analysis – it provides core skills for conducting many forms of qualitative analysis. They identify thematic analysis as a method in its own right. Holloway & Todres (2003) identify 'thematizing meanings' as one of a few shared generic skills across qualitative analysis.

Qualitative analytic methods may be broadly divided into two 'camps' (Braun & Clarke, 2006): first, those that are connected to a particular theoretical or epistemological position, such as, for example, conversation analysis (Hutchby & Wooffitt, 1998) and interpretive phenomenological analysis (Smith & Osborn, 2003) – with relatively little variability in the manner in which the method is applied, and secondly, there are methods that are independent of theory and epistemology and can therefore be applied across a range of theoretical and epistemological approaches. Thematic analysis falls within

the second of these so-called camps – and is compatible with both ‘essentialist, and constructionist paradigms.

3.4.3 Process and phases

The following Table 4 is an outline guide of Braun and Clarke’s six phases of analysis. They highlight that this process of analysis is not a linear one but tending to be a recursive process (where movement is back and forth).

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Table 4: Braun & Clarke (2006): Phases of thematic analysis

Again referring to Crotty’s summary of the elements of research and their connections to one another, I repeat that diagram (as Figure 11) now setting out the research elements to the right-side of the diagram, as they apply to this particular research.

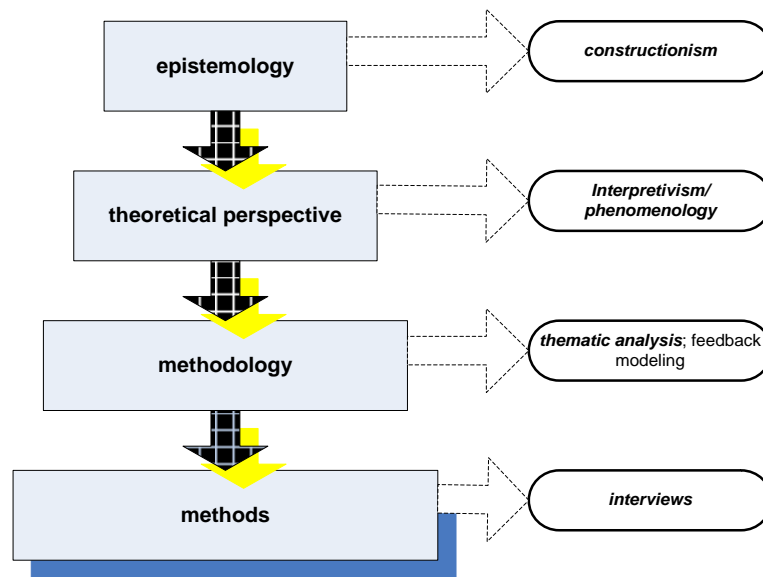


Figure 11: Crotty (1998): Model of research element, including elements for this research

As already foreshadowed, this research may reveal a connectedness between the themes uncovered broadly in relation to research question one ('foundations') and research question two (responses to change drivers), and may take the form of 'feedback' loops. With this in mind it might be necessary to contemplate the use of other forms of qualitative research method or data representation, such as 'feedback' loop modelling (Morecroft and Sterman, 1994) or other modelling (Sterman, 2000) at least at a high level to express an indication of these linkages, or any dependencies - for example, as conceptualised in relation to the research questions domains described in chapter 1 and in Figure 12 below. In conjunction with thematic analysis being the clear primary method, this additional (albeit possible secondary method) might represent an application of 'multi-method' research method (Hunter & Brewer, 2003). Hunter and Brewer describe 'multi-method' (as opposed to mixed method research) as:

Mixed methods is a term that is usually used to designate combining qualitative and quantitative research methods in the same research project. I prefer the term multi-method research to indicate that different styles of research may be combined in the same research

project. These need not be restricted to quantitative and qualitative; but may include, for example, qualitative participant observation with qualitative in-depth interviewing. Alternatively it could include quantitative survey research with quantitative experimental research. And of course it would include quantitative with qualitative styles.]



Figure 12: an indicative feedback loop between university 'foundations' and university change responses

3.5 Data Collection

3.5.1 Interviews

As noted elsewhere, critical to this research is the exploration of themes and distilling the 'essence' of the relevant phenomena. This is undertaken through the lens and lived experiences of university leaders. Braun, Clarke & Weate (2016) amongst others (e.g., McArdle, McGale & Gaffney, 2012) point out that semi-structured interviews are very well suited to this end – in fact they state that “semi-structured interviews are excellent for gathering in-depth accounts of ‘personal experience’”. Semi-structured interviews are one of the most common forms of data collection in qualitative research. To ensure the appropriateness of this form of data collection and to refine the process a pilot interview was conducted. This interview was conducted with an interview subject with the same or similar university leadership and management characteristics as the proposed research sample (e.g., a Deputy Executive Dean of faculty from one of the subject universities, subject sites). Broadly the same 'open' style and form of questions were used, during an interview of equivalent duration. The output from that interview was used to refine the approach, questions, and process.

3.5.2 Selection of sites

As highlighted in the first chapter as being integral to this research, the University of Adelaide, Flinders University and the University of South Australia have been selected. Institutionally, these universities are representative of three of the categories (as defined by Raciti, 2010; and Marginson & Considine, 2000) for public universities in the Australian higher education system: Sandstone, Unitech and Gumtree – representing a significant cross-section of the types of university in this higher education system.

3.5.3 Participant selection (sampling)

Each approach, whether for example, *phenomenology*, discourse analysis or grounded theory, involves the use of purposive sampling methods to recruit participants who have experienced the phenomenon under study (Starks & Trinidad, 2007).

Phenomenologists are interested in common features of the lived experience. Although diverse samples might provide a broader range from which to distil the essence of the phenomenon, data from only a few individuals who have experienced the phenomenon – and who can provide a detailed account of their experience – might suffice to be its core elements. Typical sample sizes for phenomenological studies may range from 1 to 10 persons. At this point I emphasise as earlier mentioned the utility and flexibility of thematic analysis in relation to qualitative research. Furthermore, Braun, Clarke & Weate (2016) note that “there are no strict guidelines around constitution and size and sampling strategy for thematic analysis - these design decisions should be informed by your research question, purpose and method of data collection”. Arising out of these considerations and later discussed considerations, there are clear indications that ‘purposive sampling’ is an appropriate (and efficient) choice.

Purposive sampling is one of a number of non-probability sampling techniques which is in contrast to probability sampling techniques. Probability sampling may be defined as having the “distinguishing

characteristic that each unit in the population has a known, non-zero chance of being included in the sample” (Henry, 1990), or “every participant has an equal opportunity of being selected” from the population (Fink, 1995). Whereas in the case of purposive sampling “a researcher has something in mind and participants that suit the purpose of the study are included (Etikan, Musa and others, 2016).” A *purposeful sample* is “one that provides a clear criterion or rationale for the selection of participants, or places to observe, or events, that relates to the research questions” (Ezzy, 2002). The purposive sampling technique (or also known as judgement sampling) involves the deliberate choice of a participant due to the particular qualities of that participant. This is a non-random technique that does not require an underlying theory or a set number of participants. The particular participant qualities may include the information possessed by them by virtue of knowledge or their experience. This typically involves selection of individual participants or groups who are likely to be proficient or well-informed in relation to the phenomenon of interest (Creswell & Plano Clark, 2011). It is also useful to note the importance of participants being able to communicate experiences and opinions in an articulate, expressive and reflective manner (Etikan and others, 2016). Within the scope of the purposive sampling technique there are a number of methods, including: maximum variation sampling, homogenous sampling (where participants share similar traits or characteristics), typical case sampling, extreme/deviant case sampling, critical case sampling, total population sampling, and expert sampling (where the research calls for experts in a particular field (as described by Etikan and others, 2016).

The rationale for this approach is to enable the collection of rich, in-depth thematic data by way of interviews with university thought leaders, who are senior members of their institutions – leaders and members who are well placed to understand the past and the present of their institution, and to be in a position to influence the future – thus being able to respond in a meaningful and informed way to the research questions, and any matters that might flow from them. Most of these leaders fit within the ‘Executive structures’ described by Marginson and Considine (2000), or are in fact Vice Chancellors of their universities and being the “pre-eminent influence”, with others being members of:

“... semi-formal decision-making groups to support the VC’s vision and reach. Most have no formal status and are not defined by statute. Most have no direct reporting relationship to other university bodies such as council or academic board.”

These members of the university are none the less *highly influential*, and amongst the Vice Chancellors, are themselves well placed to inform the exploration of the matters underpinning the core questions.

A brief profile of each of the interviewees associated with a pseudonym for them follows:

Professor UT1

Professor UT1 is the Vice Chancellor and President of the University of South Australia. He is educated as a chemist, who specialises in computer-aided drug design. He now sits on the board of Universities Australia, the peak body representing the university sector. He was also recently appointed to the Australian Research Council's Advisory Council. Before joining the University of South Australia, Professor UT1 was Vice-President for Research and later Bursar and Director of Strategic Innovation at Trinity College Dublin. Professor UT1 was Chair of the Irish Research Council and prior to academia, worked in the pharmaceutical industry in the UK. Professor UT1 qualified with a Bachelor of Science (Honours) in Applied Chemistry and a PhD in Medicinal Organic Chemistry from Dublin City University. He additionally holds an MA from Trinity College.

Professor UT2

At the time of this research Professor UT2 was the Pro Vice Chancellor and Vice President of the Business Faculty (Academic Division) of the University of South Australia. His management portfolio included the Schools of Commerce, Management, Marketing, Law and the International Graduate School of Business. Professor UT2 is a graduate of University College Dublin (B.Com (Hons) and MBS) and the University of Melbourne (PhD). Before that, he was Professor of Industrial Relations and

Director of the Australian Research Council-funded National Key Centre in Industrial Relations at Monash University for nine years. Professor UT2 has held visiting appointments at universities in Britain, Canada, Ireland, New Zealand and the USA, and at the International Labour Organisation in Switzerland.

Professor UT3

At the time of this research Professor UT3 was the Head of the School of Information Technology & Mathematical Sciences of the University of South Australia. Since then he has been the Dean, Industry & Enterprise at the University of South Australia, and currently the CEO and MD of the SmartSat Cooperative Research Centre (CRC). He holds academic qualifications in Electrical Engineering, Computing and education and a PhD from the University of Queensland. He is a Fellow of the Australian Computer Society, and a Founding Fellow of the International Institute of Engineering Asset Management, Editor-In-Chief of the International Journal of Information Quality.

Professor UT4

At the time of this research Professor UT4 was the Pro Vice Chancellor Strategy of the University of South Australia. He is currently the Head of the School of Marketing (Ehrenberg Bass Institute/Marketing Science). He is also Professor of Wine Marketing at the Ehrenberg-Bass Institute for Marketing Science. Professor UT4 holds a Bachelor of Arts (BA) from Ohio State University, a Master of Science (M.Sc) in Viticulture and Agricultural Economics from Cornell University, and a PhD in Marketing from Ohio State. He has been a Fulbright Scholar to Freiberg University in Germany. Professor UT4 is the President and founding committee member of the Academy of Wine Business Research (AWBR), and is a member of the European Marketing Educator's Association and the Australia and New Zealand Marketing Educator's Association.

Professor GT1

At the time of this research Professor GT1 was the Deputy Vice-Chancellor (Academic) of Flinders University, South Australia. He has also held the posts of Interim Executive Dean of the Faculty of Education, Humanities and Law; Associate Head (Research) of the former Faculty of Social Sciences; Head of the former School of Political and International Studies; and Director of the Flinders Institute of Public Policy and Management. Professor GT1 holds the qualifications of PhD (Harvard University), MA (Harvard University), MA (Adelaide), BA (Hons)(Adelaide) and BA (Adelaide). He has served as Editor of the Australian Journal of Political Science, as President of the Australasian Political Studies Association and as a member of the Australian Research Council's College of Experts. He is a National Fellow of the Institute of Public Administration Australia and a former Fulbright scholar.

Professor GT2

At the time of this research Professor GT2 as the Executive Dean of the Faculty of Education, Humanities and Law, of Flinders University. Prior to that time he was Dean of the School of Humanities. He moved to Flinders University from the UK, where he established the Bill Douglas Centre for the History of Cinema and Popular Culture at the University of Exeter, before becoming Research Professor in Film Studies at Sheffield Hallam University. He holds the qualifications of PhD (University of Exeter), BA (Hons; 1st class)(Cantab.) and MA (Cantab.).

Professor GT3

At the time of this research Professor GT3 was the Head of the Business School of Flinders University. Professor GT3 is a Professor of Accounting. She is currently the Co-Director of the University of South Australia's Yunus Social Business Centre at the University of South Australia. Her previous roles have included as the Director of Research at the Australian Institute of Business and the Dean and Professor of Accounting at Flinders Business School. She is a fellow of CPA Australia, is a CA and FCMA, and is a member of the Accounting and Finance Association of Australia and New Zealand (AFAANZ). She is

also a member of the Centre for Social and Environmental Accounting Research (CSEAR) in Scotland. Her degrees are in Education and Accounting, and her PhD was on environmental policy and reporting by Australian Companies

Professor SS1

At the time of this research Professor SS1 was the Deputy Vice-Chancellor and Vice-President (Research) at the University of Adelaide, and he is currently the acting Vice Chancellor. He is a former Research Leader of Video Surveillance within the Australian Centre for Visual Technologies at the University of Adelaide and a former Head of the School of Computer Science of the University of Adelaide where he holds the Chair in Artificial Intelligence and is a leading international researcher in computer vision and image analysis. His work has seen wide commercial use in the security and defence industries and has resulted in international awards. Professor SS1 is a Fellow of the Australian Computer Society, a Fellow of the Australian Academy of Technological Sciences and Engineering, and Associate Editor of the International Journal of Computer Vision. He served on the board of National ICT Australia (NICTA) for over 10 years from 2005.

Professor SS2

At the time of this research Professor SS2 was the Vice Chancellor of the University of Adelaide. He was appointed as the Chair of the Board of LCI Melbourne, and has held positions of Director of the Victorian College of the Arts and as Chair of Music Committees at the Australia Council for the Arts, and at the University of Melbourne, at the University of Melbourne, from Dean then Pro-Vice Chancellor (Global Relations) to Deputy Vice Chancellor (University Affairs). Professor SS2 studied as a Fulbright Scholar in New York.

Professor SS3

At the time of this research Professor SS3 was the Executive Dean of the Faculty of the Professions at the University of Adelaide. He has previously held the positions of Professor of Economics in the Asia Pacific School of Economics and Government at the Australian National University and Head of the School of Economics at the University of Adelaide, as well as roles with the Australian National University's Centre for Resource and Environmental Studies, the Research School of Pacific Studies and the Australia-Japan Research Centre. Professor SS3's qualifications include B Ec (Hons)(Adelaide), M Ec (ANU) and PhD in Economics (ANU). He is a Member of the Academy of the Social Sciences in Australia (2002). He is also a Member in the General Division of the Order of Australia (AM) (2007) where he was cited for 'service to international relations in the Asia-Pacific region, to economic co-operation in trade, transportation and economic reform, and to education.'

Professor SS4

At the time of this research Professor SS4 was the Pro Vice Chancellor (Research Strategy) at The University of Adelaide. She is currently the Deputy Vice-Chancellor Research of Deakin University. Her previous roles have included Associate Dean Research in the Faculty of Health Sciences and Head of the School of Paediatrics and Reproductive Health and prior to that, Associate Dean Research in the Faculty of Sciences. Professor SS4 was an ARC (Australian Research Council) QEII Fellow and NHMRC (National Health and Medical Research Council) Research Fellow.

Professor SS5

At the time of this research Professor SS5 was the Managing Director and co-founder of the Adelaide Health Technology Assessment Centre of the University of Adelaide and is the first Professor of Health Technology Assessment in Australia. She is currently the Head of the School of Public Health. Professor SS5 is Vice Chair of the Board of the International Network of Agencies for Health

Technology Assessment (INAHTA) and co-chaired the INAHTA Quality Assurance Group, and is a member of Health Technology Assessment International.

Professor SS6

At the time of this research Professor SS6 was the Director of the Data Management and Analysis Centre of the University of Adelaide. He trained as a medical practitioner and specialist physician prior to joining the university. He is currently an emeritus professor.

Professor SS7

At the time of this research Professor SS7 held the position of Deputy Vice Chancellor and Vice President (Academic) of the University of Adelaide. Prior to that Professor SS7 was the Inaugural Professor of Marketing at the University of Adelaide, Associate Dean of Research for the Faculty of the Professions and then Executive Dean of the Faculty of the Professions. She holds an M.A. from Ohio State University and a PhD from Massey University (NZ). She was awarded the prestigious title of Distinguished Fellow of the Australia and New Zealand Marketing Academy and was awarded the Ordre national du Mérite (National Order of Merit), one of France's highest honours, in recognition of her contribution to higher education in both France and Australia. In 2015, she was awarded SA Telstra Business Women's Award in the Government and Academic category. She is now the Vice Chancellor of Swinburne University.

Ms SS8

At the time of this research Ms SS8 was the Faculty Manager of the Faculty of Sciences of the University of Adelaide., the most senior professional staff position in that faculty. Prior to that time she held a diverse range of professional positions at Flinders University.

3.6 Research Ethics

Some general ethical issues in research that result in some prohibitions are: never cause unnecessary or irreversible harm to participants, secure prior voluntary consent when possible and never unnecessarily humiliate, degrade, or release harmful information about specific individuals that was collected for research purposes. These are minimal standards and are subject to interpretation (e.g., what does 'unnecessary' mean in a specific situation?). Participation in any kind of research must be voluntary, and the researcher must inform participants regarding all aspects of research studies. In this regard, this is pertinent to note that the researcher has obtained informed consent statements signed by the participants, informed them of their rights and provided an information brief about the research study (Neumann, 2011).

In addressing the 'ethical' issues and potential risks associated with this research, a formal application was submitted to the University's Ethics Approval Committee, seeking formal approval to proceed (subject to whatever conditions might be applied to that approval). That application comprised a detailed description of the research, form of data collection (in this case, interviews), list and details of proposed interviewees, process and measures for data security, outline of the manner in which the interview will be conducted (including draft questions), information pack/sheet for interview candidates (including grievance procedures and contacts), draft letter of invitation to participate, and draft form of consent. On that basis, approval was granted for this research project number H-2013-030 (to the Principal Supervisor) on 5th April 2013.

3.7 Summary

This research is exploratory in nature and has been conducted through an interpretive approach, focussing on discerning the patterns arising out of the lived experiences of our university leader subjects – this is consistent with a phenomenological methodology. The principal method used for identifying these themes and patterns is 'thematic analysis'. Our university leaders are well placed to

understand the subject phenomena – the foundations of the university, its change drivers, and the responses and reactions to those forces of change. Interpreting these experiences is central to this research.

4.1 Introduction

The purpose of this chapter is to provide an analysis of the data arising out of this research. In this research that data comprises transcripts of interviews with university thought leaders. The review of key literature sources in chapter 2 is also an integral component of this research – it is of interest and relevance to the research questions to form an understanding of how the concept or idea of the university has developed to the point of the current modern university. Our understanding of the university comprises the foundational elements and dimensions of the modern university, and the forces of change, the drivers that have shaped that organisation. This has led to a distillation of the underlying, foundational concepts through to a range of models that sustain the university, enabling its mission.

The process of analysis has involved four (4) stages of review of the university leader interviews, with passes occurring some 12-18 months apart - this facilitated a more reflective approach to coding. The coding and identification of themes started with 'open' coding to identify core themes, the emerging themes. This was undertaken inductively, without having previously setting a 'coding' schedule, or starting with a predefined set of codes – the initial codes emerged from the first pass review of the interview data. However, during the coding process there was an awareness of the underlying research questions. In addition to identifying themes, a number of concepts were identified, and through further inductive analysis a number of indicative models were identified. This is a data-driven analysis, without assuming that themes will relate to the research questions (or necessarily those asked of the interviewees) (Braun & Clarke, 2006), with the observations allowing a number of generalised explanations being indicated. To explore these core themes and the concepts and models that emerged from this analysis, this chapter has been divided into the following four sections, which track

the identification of concepts to the inductive synthesis of university models. This includes the interpretation of the data by the researcher, taking the dependencies and concepts that have been identified through the analysis of the university leader interviews, to represent models. These models highlight the inter-dependencies between the dimensions and component concepts, through visual representations of them – these representations take a range of forms (for example, systems, ‘feedback’-loops, concept maps). These data representations arise out of an inductive interpretation, taking into account the view through the ‘lens’ of the researcher and his professional experiences of the foundational-functional environment of the university. In this research we not only seek to identify key themes and patterns arising from individual interviews but explore patterns and linkages (or inter-dependencies) that can be discerned by reading across all of the interviews and within them. The four sections are:

- *Foundations*: the elements which are essential to the ‘university’, defining the university and providing its character, the nature of the organisation, both the institution and its membership.
 - The University and other knowledge organisations
 - The higher education environment
- *Drivers of change*: the forces and influences that have affected significant or transformational change in and to the university.
- *Responses*: the responses of universities and their leaders to these drivers of change. This includes actions to enable change and in mitigation of some forces.
- *Concepts and Models*: in this section the research draws together the connections and dependencies amongst the elements and attributes of the university, comprising the foundational elements and the drivers and responses that act upon them. This is in the form of visualisations to represent them as models (in the broader sense). This takes the form of maps, [Venn] diagrams, feedback-loops, and ‘systems’-like diagrams, models (such as Morecroft and Sterman, 1994, 2000).

Figure 13 below sets out the indicative relationship between these sections.

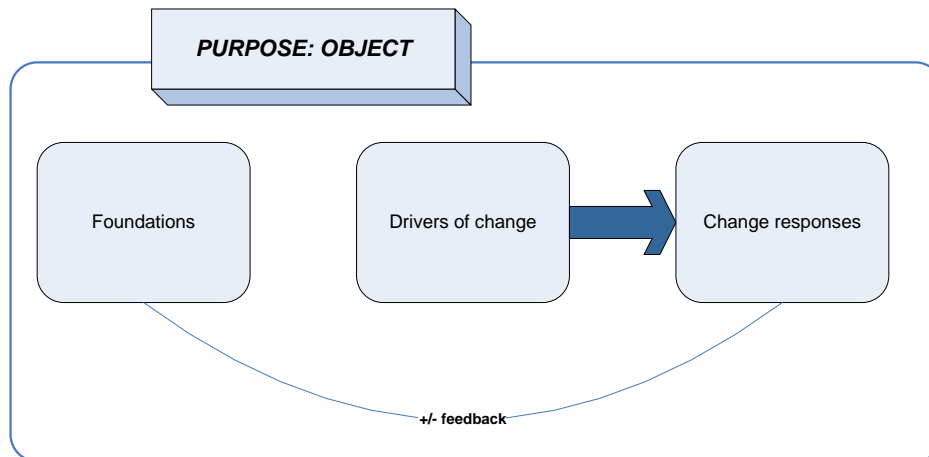


Figure 13: Analysis: indicative relationships between sections

4.2 Foundations

4.2.1 The core

The data from the lived experiences of our research university leaders indicates that the modern university is a complex combination, or mosaic, of elements that comprise the university. It will be useful to contrast these perspectives with those elicited from our core literature sources, which will be the subject of later discussion. The modern university can be viewed as having a number of dimensions, spanning layers. The leadership perspectives indicate a strong convergence on 'knowledge' being the core of the university, the common thread that runs through all universities – common to their teaching and research. However, even though knowledge is the core of the university there are other layers that together cumulatively distinguish the university from other knowledge organisations. It would be an understatement to say that these views on knowledge are a nuanced. This particularly relates to the meaning of knowledge and its end-purpose and attributes. Amongst these knowledge attributes are its creation, dissemination, and translation.

Our university leaders have provided an indication of the nature and meaning of 'knowledge', the import of what is meant by knowledge, our leaders differentiating knowledge from mere information, or teaching from training:

... teaching is different from training and knowledge is different from information. I think there's a hierarchy - and this is obviously not in any sense original - from data, to information, to knowledge. The production of knowledge, whether it's original knowledge or just regular, everyday knowledge, involves not simply the acquisition of information but also the development of the capacity to combine, manipulate, integrate, process information so that it becomes something larger and more complex than it began. That's the process of producing knowledge.

The insights concerning the nature of this knowledge include fundamental knowledge and applied knowledge as distinct forms of knowledge and as translations of one another (but with that not always having to be the case). However it was suggested that where fundamental research is translated into applied knowledge, this is often where 'paradigm' shifts in thinking are achieved, innovation is achieved. As noted above our research subjects make a clear distinction between mere information and actual knowledge. They also note the important connection between educating and scholarship, and the integral role of knowledge in the provision of education and learning, and scholarship. While acknowledging the importance of training (which is later discussed in this research) they highlight the distinction with educating, which is core to a university. An important feature of educating is the lifelong learning benefit bestowed on the learner. As noted but usefully restated, teaching differs from training, and knowledge is distinct from information – it is not simply the acquisition of information but also the development of the capacity to combine, manipulate, integrate, and process information so that it becomes something larger and more complex.

Our university leaders further define the university through comparisons and drawing distinctions with other organisations (including other knowledge organisations). This is explored later in this discussion and analysis. These distinctions are important in furthering our understanding of the nature of the university. Even though this subsection of the chapter is entitled the core, the core of the university can be regarded as having a duality or be represented in two ways: our leaders note that there is a clear core of knowledge, that is the strand that runs through all universities; and the core can also be regarded as knowledge and all of its related facets (such as the important action of dissemination, and the overarching goal or purpose of providing public good and community benefits). These latter attributes can be represented as knowledge in the form of layers, or dimensions. This can collectively be called the knowledge dimensions of the university. There are other dimensions to the university, which will be explored through the application of the insights of our university leaders.

4.2.2 Knowledge actions

The provision of the various perspectives below is intentional and is illustrative of the convergence of views concerning the centre of the university. Amongst the other knowledge dimensions indicated by our university leaders are those encapsulated by the following remarks which describe the elements of the university (the characteristics of knowledge and its related actions).

... what would make the university distinctive would be that it has these goals to do with the transmission of knowledge which is teaching and the generation of knowledge which is research within this context of a claim to some autonomy of academic judgement.

... the sole objective is to capture the knowledge of the world and to advance that knowledge, to preserve it and protect it and advance that knowledge and through that vehicle make the world a better place. ... So de-packing that into smaller concepts, it is very much around the creation of knowledge - first of all of harvesting existing knowledge and synthesising existing knowledge in new ways for people to understand it. That's what we call scholarship. But also

to take knowledge from varied perspectives from the term of - from the position of solving a problem that humanity may have or from the position of doing it for the sake of doing it. Not necessarily to solve an immediate problem - to advance that knowledge again for the benefit of humanity. ... So that in my view the university - and that's basically what we call research but in my view the university's role is to use this knowledge for the advancement of our world. ... So that in my view the university - and that's basically what we call research but in my view the university's role is to use this knowledge for the advancement of our world. ... Of course, again, as a third pillar is kind of anchoring that in the intent which is to advance the world by engaging into the community.

... the business of university is producing knowledge and producing people who can use that knowledge in society. I think that is the unique contribution that I would see universities as having.

... So personally, for me, it is that commitment to innovation and excellence in both knowledge creation and knowledge dissemination, and being able to articulate what the added value of that activity is to key stakeholders.

The actions associated with knowledge that are integral to the university encompass its creation, advancing knowledge, and through the dissemination and transmission of knowledge. Importantly, our university leaders also highlight the role of knowledge translation – the translation of existing knowledge in all its forms and specifically the translation of fundamental knowledge to be applied (or even into applied knowledge). This translation is even noted as being critical to achieving the important ‘paradigm shifts’.

4.2.3 Purpose and context

In addition to knowledge being at the core, the modern university does not merely pertain to knowledge without context or purpose. It is not only contemporary commentators such as Collini (2012) who

indicate that there is an object of 'public good', our university leaders strongly share that sentiment, a view that is pervasive in their narrative. This is consistently held, whether framed in terms of society, the community, humanity, or "to make the world a better place". They are integral to the university, embedded with all of these central propositions that encapsulate knowledge and the university. This is further reinforced with university education itself being characterised as a public good. The restatement of the following interview excerpts is intentional, indicating some expressions of the purpose that our university leaders link as knowledge goals.

... the sole objective is to capture the knowledge of the world and to advance that knowledge, to preserve it and protect it and advance that knowledge and through that vehicle make the world a better place. ... So de-packing that into smaller concepts, it is very much around the creation of knowledge - first of all of harvesting existing knowledge and synthesising existing knowledge in new ways for people to understand it. That's what we call scholarship. But also to take knowledge from varied perspectives from the term of - from the position of solving a problem that humanity may have or from the position of doing it for the sake of doing it. Not necessarily to solve an immediate problem - to advance that knowledge again for the benefit of humanity. ... So that in my view the university - and that's basically what we call research but in my view the university's role is to use this knowledge for the advancement of our world. ... So that in my view the university - and that's basically what we call research but in my view the university's role is to use this knowledge for the advancement of our world. ... Of course, again, as a third pillar is kind of anchoring that in the intent which is to advance the world by engaging into the community.

... the business of university is producing knowledge and producing people who can use that knowledge in society. I think that is the unique contribution that I would see universities as having.

Whilst there is a shared view amongst our university leaders that universities possess a common core of knowledge, they also hold largely convergent views on the attributes of that core. Those attributes can broadly be drawn together across three categories: nature of knowledge; actions with respect to knowledge; and purpose.

4.2.4 Dimensions and layers

There is richness to our consideration of the nature of the university - the nature or essential character of the university is indeed complex, multi-layered and multi-dimensional. Some commentators use the term the 'multiversity' (for example, Collini (2012)). As we are discovering throughout this research the university is not one thing or another. It can aptly be described as having many dimensions and layers, often connecting at specific points. We have found that the university is the 'combination' of its core activities, or even the full 'gamut' of these activities. We will later describe these activities and attributes. Importantly, the linkages between these activities and the other dimensions that are revealed through this research will be made evident.

... it is the combination of the core activities that we engage in, one of which is teaching and the other - well teaching, learning and the dissemination of knowledge and the other is research and therefore the production of knowledge. I think also, the context in which we do these things, which is essentially a context of public good. ...

A university may be unique because it uniquely covers that whole gamut of activities and does so within what I think you're getting at, which is a culture of understanding that is slightly separate and apart from other institutions, that universities do stand for something with a slight degree of autonomy whereas a corporate research office in principle doesn't have to have that kind of autonomy.

So far, through our analysis of the leaders' interview data, the complexity that we refer to is manifested in a number of distinct ways, revealing a range of concepts and even models, further building on these

emergent concepts. First, as above, the university comprises many elements and attributes. Even though some of these components are indeed elemental to the university, and even central, such as is the case with knowledge, it is the combination of all of these things that define the university, that are foundational. In addition to those already identified, there are other key components that our leaders speak to. Amongst them is the multi-disciplinary scope of the university (which distinguishes it from a number of other knowledge organisations), it is a collective of scholars, its mission is one that is not-for-profit (even though a university may engage in for-profit activities), and is characterised by its independence (which equates to the independence of its members). The importance of independence is a recurring concept that appears, and is one that is debated amongst commentators and our university leaders – the discourse concerns the meaning of independence and the extent to which it is foundational, or even the extent to which it exists in the modern university. The matter of independence is both important and much debated (for example in relation to commercialisation (Lynch & Ivancheva, 2015)), and hence it is discussed in more detail later in this research. The following remarks are illustrative of the not-for-profit focus and multi- or inter- disciplinary nature of the university.

... that would be one of the distinguishing characteristics - would be that it is much more accountable to the ideal of advancing knowledge, not to the ideal of advancing the knowledge that would generate the profit ...

... It is a not-for-profit activity, so therefore it's not an essentially commercial activity.

Knowledge ought to be - what's the technical term for those things where the fact that you've got it does not disadvantage anyone else having it?

The first thing that springs to mind is not for-profit. I mean there are other not-for-profit organisations but then universities tend to allow - or at least in the past used to allow research for research sake rather than necessarily it having an application. That's wound up in the not-

for-profit type thing because there's no need to necessarily capitalise on that research. It's just knowledge for knowledge sake ...

Whilst individual members of the university tend to align themselves with a particular discipline, universities typically distinguish themselves, across a whole of institution, by the breadth of research and educational programs and awards they offer. For example, a multi- or inter- disciplinary approach to research is an approach that is embraced by most modern universities – a number of the university leaders note this as a point of difference from other knowledge organisations, such as research institutes.

... I think - my experience of it is it holds true. I think people are - if you ask somebody what they do as an academic, they don't say, I'm an academic. They say, I'm a chemist, or, I'm an economist, or - there is an immediate discipline identity, ...

The following section concerning other knowledge organisations supports the position that the breadth of the university, the breadth of its research and educational activities are an important distinguishing element (but for ease of reference, one of those sources is repeated here):

it's the breadth of the university as well as that teaching and research, I think, that helps define it

In terms of the layers that comprise and describe the university, the first of these to be addressed is a map of the knowledge layers or dimensions of the university. The illustration below sets out these knowledge layers in a form of hierarchy, starting with knowledge itself in its broader sense, then forms of knowledge, and knowledge activities or attributes, which are bound by its 'public' purposes. This is only one of the layers that compromise the university. Universities are structurally complex and complex in terms of their interactions, so it is appropriate to visualise universities in a number of ways: layers, Venn-diagram-like representations, maps, and as linkages or even feedback-loops, and models. These representations will be used later in this research to illustrate the other 'dimensions' of the university.

These include the dimensions relating to the balance of the research questions: drivers of transformational change, responses to that change, and the linkages between them.

Figure 14 below starts to set out the relationships and layers amongst some of the attributes of university 'knowledge', against a context, 'public good'.

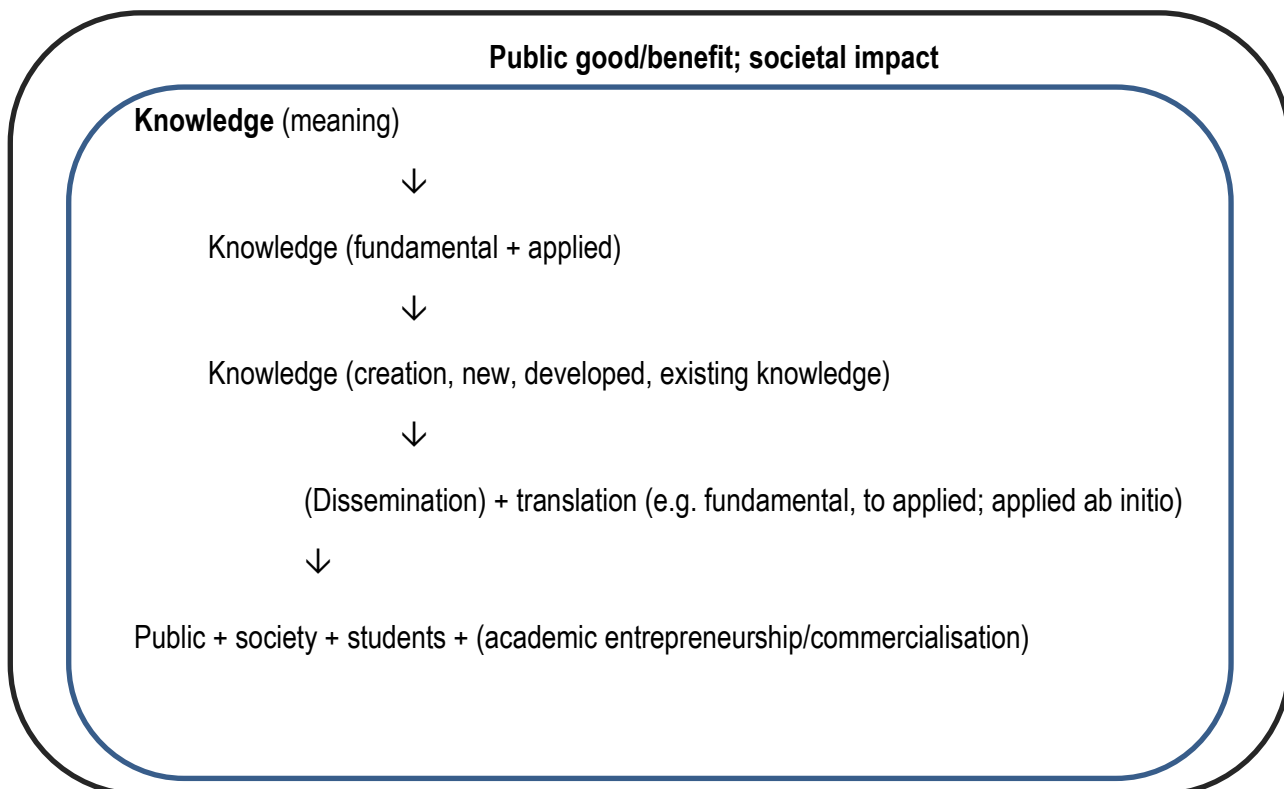


Figure 14: The core: knowledge layers

4.2.5 Independence

There is strong support amongst the university leaders for the proposition that 'independence' is a crucial cornerstone of the university. Of the many expressions used by them, the term independence has been chosen to encapsulate the expressions and shades they have used to capture this notion. Independence has manifested itself in many ways: the provision of independent advice and direction on the basis of independent thought, underpinned by truth or integrity; freedom of speech (including

through publication); academic freedom as freedom of speech related to an area of expertise; and the exercise of autonomous judgement. A number of example illustrations follow:

... independent of thought and advice and direction. Guided by the university's appreciation of what is in the public good, but nevertheless, independent of government thought or commercial thought or that sort of thing. ... Independence and - call it what you will. Truth or integrity or some sort of notion that you're - you owe something to the public.

... our staff are entitled to make public statements in areas where they have competence. The University doesn't necessarily endorse what they say but it endorses their right to say it and their right to associate themselves with the University.

Freedom of learning and teaching - academic freedom is crucial. My nuance of that would be academic freedom is a kind of protected space for people to speak with expertise without fear of retribution basically.

... [in relation to the separation of these roles/functions] [i]t is a contested area but the University's claim would be, when it comes to a conflict, there is a separate sphere of autonomous judgement.

The beliefs and values endorsed by these university leaders is not a mere function of academic belief but is enshrined in the regulatory framework of Australian universities, in legislation (as indicated below). In fact there is a current debate concerning the perceived erosion of freedom of speech and academic freedom within universities which is the subject of an independent review. This review has resulted in the development of a Model Code. This has occurred since these interviews were taken. The universities have agreed to adopt this code.

So I think it's becoming a blurrier definition but I think there would be a claim - and in some ways it's been reinforced with legislation recently. The Higher Education Act as amended a

couple of years ago does embody this thing called academic freedom in the Act, which I don't think would apply to Bell Labs' science lab.

The extent of this independence is a matter that is not uncommonly debated. Later in this research we will discuss the role of funding, its role as a driver of change or as a response to change (and in some instances both). For the moment, it is notable that funding can be characterised as influencing the level of this independence (or the perception of independence). The following views demonstrate that spectrum of influences and external priorities (external to the university) or stakeholder priorities that can certainly be seen as affecting the various forms of university independence. Having said that, ethical conduct is still largely regarded as a hallmark of the university or what is referred to as 'integrity of knowledge' in section 4.3 below, and this is reflected to a large extent in university structures and governance.

... Clearly and indeed sometimes the line is crossed. You can't tell me that there are no research - medical research, in fact I would think or at least research that effects people's lives - food and smoking and so on - you cannot tell me that if you trace a lot of the research reports to where who is doing the funding, that there is not some benefit. Now often they try to be as independent as possible and they don't cross the ethical line but many do in fact, many do. [E.g. of tobacco companies suggested] ...Once you need an economic, a source of economic support you're no longer independent. Whether you get it from industry, whether you get it from the taxpayer, whatever, you are then guided by an agenda that is no longer just the pure academic freedom that some of our academics seem to think justifies any activity regardless of its cost. The reality is that research costs money and you need a sponsor and that sponsor is either the taxpayer, industry or some other organisation.

... I think with a government research organisation, it's - there's - I think there always has been to some extent, but certainly perhaps increasingly, the need to address strategic priorities or

other priorities of particular governments. So there is more of an agenda, which I don't have a problem with. But that could, for example, mean addressing major problems that our society faces and the government of the day has put particular - its own particular imprint on that. What it wants those priorities to be, which may or may not be guided by advice from universities and others. ... But - so there's more of an agenda that's guided by political concerns perhaps and other concerns perhaps. ... I think universities' agendas, or that of their academics - and certainly where senior management perhaps directly or indirectly encourages them or influences them to go - is influenced by government and some of the same external agendas. I think - for example, for many years, we've now had stated national strategic priorities in research. Or stated national priorities in terms of what are the big problems ...

Those priorities also feed into resourcing. So if you were conducting a research - discovery research or applied research, you have to obtain those funds. There's certainly a view that addressing those strategic priorities might increase your chances of funding. In practice, it's probably more the case that it's addressing the priorities as seen by your peers in research, is more likely to get you funding because they're still making the decisions. After the event, an analysis is provided to government as to how the funding was allocated according to the national strategic priorities.

... all the major funding schemes tend to have some funding put aside for strategic priorities. So we are influenced by external agendas driven by government or government bodies - controlled bodies, I guess. Similarly, if you're looking at funding for applied research, you have to have industry partners or at least industry priorities.

The independence of universities and its members can clearly be impacted by influences such as stakeholder agendas and priorities, and even more explicitly conditions that might attach to funding. These might appear to be somewhat indirect such as in the case of funding being directed and

awarded on the basis of say alignment with national research priorities or otherwise in the national interest, or where funds are granted on a commercial-in-confidence basis, thus even preventing academic publication. Stakeholders may even exercise contractual conditions to prevent publication of unfavourable results or evaluations. (During part of the researcher's career as an advisor he recalls being asked to advise on legal remedies that could be used to prevent a university from releasing an unfavourable evaluation.) Amongst our university leaders the views encompass a spectrum of perspectives on the degree of this influence, ranging from mere influence to being tantamount to extinguishing the independence of universities and their academics. These remarks cannot be made without suggesting the possible impact on the ethical dimensions of the university, or at least, an emerging tension. These drivers and influences are discussed in detail later in this research, particularly their fuller import and the responses of universities to them.

There is a clear counterpoint to this independence, or counter balance, it is the ever growing imperative to be viable, to consider the 'bottom line'. The collective activities to achieve this have been described as becoming more 'corporate' or business-like, or even being a 'business' (which is later discussed in detail):

... perhaps safeguarding free thought and speech and so on. Most universities would do that but not all. ... It depends on culture, it depends on independence of universities, whether it's economic, financial or even political independence.

... They are not as focused on profitability if they can manage it, whereas most universities and particularly now in Australia, most universities are now becoming the same in that score. That is that they are focusing now much more around viability, enterprise from the commercial side - the word enterprise - innovation but around areas that will make their bottom line better.

Indeed, most universities and their senior management do recognise that universities have become much more corporate.

This tension between independence in its various forms and other drivers (such as funding) is persuasively stated:

Some research you can't do without money. Full stop. Once you need an economic, a source of economic support you're no longer independent. Whether you get it from industry, whether you get it from the taxpayer, whatever, you are then guided by an agenda that is no longer just the pure academic freedom that some of our academics seem to think justifies any activity regardless of its cost. The reality is that research costs money and you need a sponsor and that sponsor is either the taxpayer, industry or some other organisation. But it won't happen for free. ... [Researcher: So there is always a version of strings attached I guess?] ... I like that. Yeah.

The term 'independence' imports a diverse range of concepts and meanings. A number of these, as elicited from the data and our university leaders are set out in Figure 15 below.

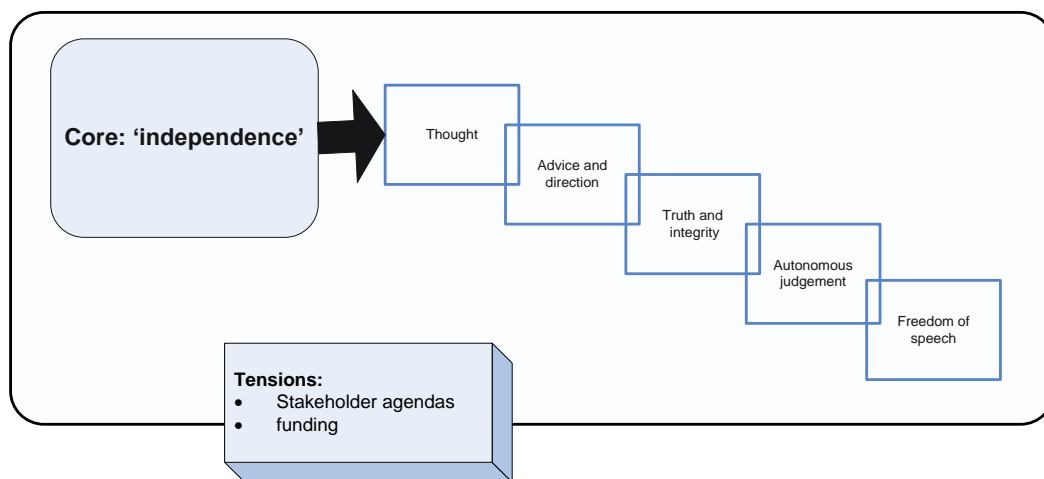


Figure 15: Independence: forms

Even though the university could be described as comprising connected layers, it is possible to distil it into elements:

- 'knowledge', fundamental and applied, and knowledge as 'translated'

- The object of knowledge being acted upon in a number of ways: dissemination, development, and in the formation of scholarship
- Knowledge in relation to the university has a distinct purpose: public good and for the benefit of the community
- Independence is a hallmark of the university, with this being expressed in many forms.

4.3 The University and other knowledge organisations

The uniqueness of the modern university is further underscored by our university leaders through their comparison of the university with other organisations, in particular other knowledge organisations. As well as sharing their perspectives directly on the foundations of the university, the university leaders interviewed amplify these views by contrasting the university with examples of other knowledge organisations. These important points of distinction include, particularly with respect to the universities in this case study and the majority of universities comprising the Australian higher education system, a not-for-profit focus, and universities undertake the full range or 'gamut' of academic activities (for example, research, and teaching and learning). Other organisations do not, some focus on training rather than teaching (imbued with an object of lifelong learning), and there may be a further distinction in terms of the pursuit of fundamental research and the pursuit of the broader path of inquiry. Even though we note that universities can be distinguished on the basis of a predominantly not-for-profit focus, that does not preclude them from pursuing for-profit activities – some universities prefer to refer to this as generating surpluses instead of making profits, and are in fact classified as not-for-profit organisations.

... it's - that's the mirror image of the TAFE that has teaching with no research. You have research with no - and I say teaching in the traditional sense of degree-based teaching. So there are some institutes that certainly conduct seminars and they even provide input into courses. There probably are some that have - I don't know. I can't off the top of my head, but

there probably are some that have some accreditation for PhDs or whatever, possibly. But to me, the university brings those two streams together in one institution.

Importantly, our leaders noted that universities are multi- or inter-disciplinary organisations – this of course might be a matter of degree, especially when recognising the origins of some universities and the influence of government policy review implementations – this is the subject of detailed discussion later in this research. Another difference that perhaps goes to the character of the university is the alignment of its members, academics with a collegial disposition and seeing themselves as belonging to academic disciplines (as a “company of scholars”) and their associated structures (such as a defined academic school, rather than a mere organisational unit, profit/cost centre) – this is an important part of the academic identity within a university.

I think that's part of what the pressure is in the twenty-first century, is that - is a specialist taking one of those two, a better model than a generalist, which is a university? Because I think the other piece of the university is its breadth. So you can have - we deal - in here in the business school, in our EQUIS accreditation, we deal with EQUIS accredited business schools in Europe. For the most part, they're standalone entities. They're not a university. They're a business school.

Whereas a university - we're sitting in one now, or you're up the road at ..., it doesn't just have a business school. It has medicine or health. It has engineering. It has a range. Where the institutes you're talking about are quite specific. It's an institute for X. The Centre for ██████ that's building a building here, that's a very specific institute. Yes, they have PhD students. Or the ██████ Research Institute, they supervise PhD students. But they don't have - that's their - they're very narrowly focussed. So it's the breadth of the university as well as that teaching and research, I think, that helps define it.

... Again it depends how you define independence. If independence is linked to the ability to sort of have integrity around the knowledge that's produced, rather than having it comprised by business principles, then yes, that integrity around knowledge generation is one of the core driving tenets of what a good university would be like.

... So I think again, for university, you have to be able to demonstrate the integrity of the knowledge you create.

The administrative or 'professional' operations of the university rather than by contrast, has been likened to a government agency or department, or the 'civil service'. It serves the institution and it endures and to some extent is relatively unchanging:

... Then you have the - on the professional side, the professional side serves to service the institution. Depending on the nature of the institution, if you take older, Go8 or Trinity colleges of the world, the professional side is the civil service, which will endure - will continue to do what it does because that's what it has done for millennia, and runs the machine while the academics are the more transient component to the operation. People come in, they leave. My chancellors come and leave and my PVCs, DVCs come and go.

As noted by Trow and others, and the writer, universities are certainly different from corporations and companies. Even though a corporation, particularly large, public companies will state that they have many stakeholders, there is one dominant stakeholder in their case, the shareholders – this will of course vary depending on the nature of their business. For example, regulators may be very influential. The modern university must engage with an ever increasing number of stakeholders, or interest holders – a growing number of research, and commercialisation 'partners', funding parties (in Australia, particularly the Australian Government), students, accrediting bodies (local and international), public, community and society, and the constituents of its various markets (which are changing). This is perhaps further complicated in terms of the market and the product – one leader has proposed that in

relation to learning and teaching, the university product is not the degree program, award but rather the student, the graduate. This is persuasive and may cause us to reconsider our view of the market, and in particular, the so-called product. This is perhaps reflected in a growing trend amongst universities to focus on the outcomes relating to a degree, such as graduate destinations and graduate qualities, attributes, rather than singularly on the internal characteristics of the degree.

... I think our students are not so much of consumers as they are a product, and they don't see it that way because they feel they're paying and to some degree they are contributing to the cost of their education, but only to some extent. So I think it's quite important that we keep the perspective that our graduates are our product, as much as the research we develop, also develop future citizens and you would think that a government would be willing to pay for that - for the quality of the future citizens.

4.4 The higher education environment

Universities in Australia have been edging towards being an integral part of a true system, a higher education system - a system that is governed by uniform rules and policies. The impact of this cannot be understated. The Australian higher education system prescribes rules that define what a university is, enshrined in legislation (including the Higher Education Support Act (2003) and the Tertiary Education Quality and Standards Agency Act (2011) ("TEQSA Act"). The import of this development and the details of this framework set out the shape and many of the dimensions of Australian universities. This became particularly so following the implementation of the Dawkins Review (1987) and commentators have indicated that many of these aspects were reinforced under the Vanstone Review (1996), especially the development of a distinctive higher education market.

The reforms led to a number of change drivers profoundly affecting Australian universities which will be discussed later. However for this section, we discuss the views of our university leaders and the

differentiation of the universities that comprise the university component of this higher education system. This system also includes vocational education providers, both public and private sector.

There is a political agenda that seeks to homogenise and I think there is a - as the market matures if you like, there is a definite need for universities to differentiate.

Yes. I think it's been very sub-optimal in Australia, and it's gone on so long that people here think this happens everywhere in the world. I mean, it doesn't. There are very few countries that did that, and it was a response to the explosion of demand. By the post-war baby boom, by the 1960s, there was a huge explosion of demand for university places. Universities couldn't meet all the places. The response in Australia was simply to grab a whole lot of things that weren't universities, call them universities, and somehow massify the places. But the trouble was, it didn't really multiply traditional university teaching in this country.

All it did was force the name and the practice of a university onto ...

This is further amplified by the demand for professionally accredited degrees, such as business degrees, requiring a certain commonality of content. As noted below, in addition to tending to drive teaching content across universities to a level of homogeneity it can also influence research differentiation.

Well we all tend to try and differentiate ourselves in what we're famous for. So the guy who's running the business school at the moment says in business programs 85 per cent of what we do has got to be the same because they're the fundamental things that you have to have in a business program. That means we have to have people who can teach in those areas and that means their research is in those areas. So if you look across the schools there's not a lot of difference.

As noted by our university leaders, 'threshold' standards are applied to our universities under the TEQSA Act, with the particular standards being set out in the Higher Education Standards Framework (Threshold Standards) 2015. In many ways these standards provide a de facto definition of the university in the Australian context, through a mosaic of standards. A range of standards are applied across different levels (including the provider/institution, course and qualification) to a range of 'standards' by the legislation (such as Student Participation and Attainment; Learning Environment; Teaching; Research and Research Training; Institutional Quality Assurance; Governance and Accountability; and Representation, Information and Information Management including information for students). The university leaders provide an exposition across many of these areas in relation to the drivers of change and their responses to these drivers. This is through the context of their lived experiences and whatever meaning these standards might have for the day to day experiences of members of the university, students and their other stakeholders.

There is a strong and growing tension in a higher education system that promotes uniformity through a standards-based approach, and the pressures of competing in a market. This uniformity, or as described by our university leaders, as a trend towards universities becoming homogenous, became most pronounced following the implementation of the Dawkins Review and the associated institutional amalgamations. This tension is illustrated by the opposing forces of meeting the requirements of these standards and an ever growing need for universities to differentiate themselves from one another (and with other competing education providers) as a response to competing in domestic and international markets. Having said that, this uniformity can be somewhat nuanced – whilst Australian universities are, for example, required to engage in both teaching and research, the degree to which they must do so, in theory, can vary to a large degree. This can be represented as a continuum between these university dimensions or attributes, as set out in Figure 16, below. However, in practice universities are constantly trying to seek an appropriate balance arising from the funding dynamic that underpins these activities. This is an area of in depth discussion in later sections.

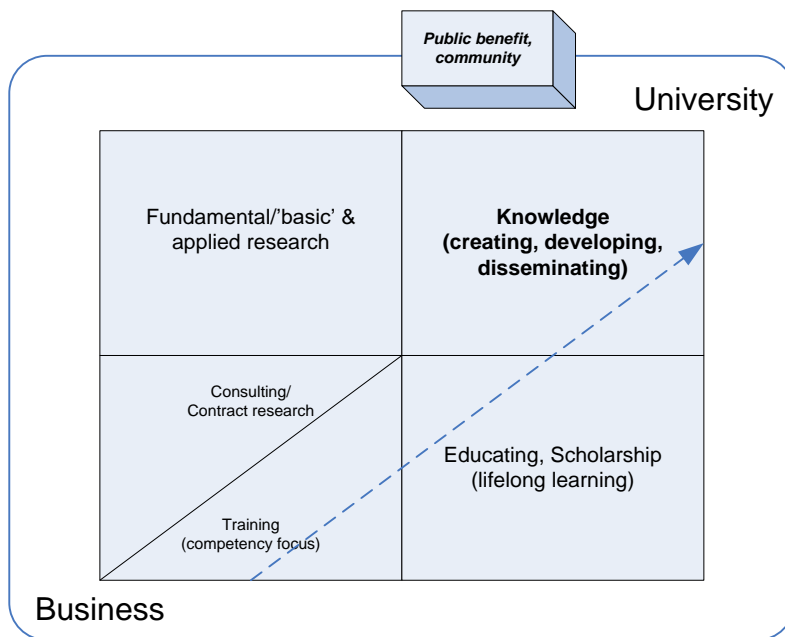


Figure 16: A continuum of differentiation: Australian universities

In the context of this research, the higher education environment, particularly as proscribed by government policy in more recent times is a critical and transformational factor, driving change in and across universities, including:

- Regulation through the imposition of 'standards' resulting in, arguably, a system comprising homogenous universities
- Creation of a university 'market' (and domestic competition)
- Funding and economic policies, affecting universities through resourcing, and their clients (including students), through differential funding and payment/re-payment schemes.

4.5 Drivers of change – the Forces

In this section through an analysis of our interviews with university leaders we identify the factors that have driven significant, or even transformational, change to our modern universities, and the manner in which our universities have responded to those forces for change. This is through the lens and lived

experiences of these leaders in the context of the contemporary Australian university. However this research also provides useful indicators to the forces that are shaping universities beyond the borders of Australia.

What are the key factors that have brought about significant change in universities (perhaps even affecting their character), the transforming drivers and influences? As already mentioned commentators and researchers have frequently sought to identify these factors. It is also notable that this research explores these drivers through the lens of those members of universities who are responsible for recognising these drivers and leading the responses to them on behalf of their universities and providing critical direction to their colleagues. Our university leaders have highlighted these drivers and provided their insights into how they have been responded to, and importantly provided us with key pointers to 'cycles' that affect and may determine many of these drivers. These leadership perspectives enable us to understand the linkages between the elements that are disclosed through this research (amongst the foundations, drivers and responses), guiding us to develop our own perspectives on their dependencies, the organisation of this knowledge and to ascertain emerging models. A cornerstone of this research itself will be to draw this together into an analysis and explanations that allow us combine the core concepts into visually represented models and sub-models, highlighting these inter-dependencies and dualities of the research elements that cross the boundaries of our research question dimensions. For example, there is a duality where an attribute might be both a driver of change and a response in another instance.

4.5.1 Drivers – the layers – 'mosaic'

In a manner that is similar to our analysis of the interview data concerning the foundations, the drivers also present themselves as having a structure of layers, with a distinct core. (Each layer could be represented as a mosaic of its elements.) At the core of transformational change for Australian universities is government policy. In the past the catalyst for major policy reforms has been the various

government reviews into higher education. As has been already noted the outcomes of the Dawkins Review profoundly affected the shape of higher education in Australia today, setting in place many of the policy settings that still dominate the sector. There are of course other reviews that have affected universities, and there have been policies that have not been the result of such major reviews. Key features of the Dawkins Review include the transition from a binary system to the 'Unified National System' (UNS) of tertiary education which comprised three main models of mergers (which is discussed in the literature sources of this research), the introduction of direct fee charging for international students began, with Commonwealth funding being just over 80% of institutional operating budgets at that time. Key to this review was the introduction of the Higher Education Contribution Scheme (HECS) which came into operation in 1989 with the number of HECS places determined by negotiation between the government and institutions – this has endured through many changes of government since its introduction, governments of both major political persuasions. This situation created a quasi-market in education. HECS offset the reduction in government funding by having students pay a part of the cost of their education. Students were charged the same irrespective of course, about a fifth of the full, average cost of an undergraduate degree. Over time we have seen marked changes in the proportion of these fees being borne by the student. This was viewed by the government as a mechanism for enabling the government to better align higher education with the needs of the economy. We will later see that governments employ other policy devices to serve their economic purposes.

There are many forms of government policy but as many of our university leaders have pointed out it has been the resulting policies concerning funding and resources (whether in relation to teaching or research) that have had the greatest and most immediate impact on the universities themselves. That is not to say that the effects of the introduction of the above Higher Education Contribution Scheme and student loans, and the forced institutional amalgamations were not profound. Many of these enabling policies and the 'reforms', set the sector on particular paths that were expanded on by subsequent governments and policy adjustments to them.

4.5.2 Policy – financial and economic

The effect of government policy can be far reaching indeed, and this is certainly so in relation to universities in Australia. Government policy can take many forms and affect a wide range of policy areas. In the case of universities, government policy can reach into almost all, if not all, corners of the university. The research literature sources and significantly the university leaders, identify these policy drivers. The findings from the research literature sources and our university leaders are complementary, and in fact amplify the full import of the policy influence on universities (not merely affecting the universities as organisations but key stakeholders, importantly including students).

Amongst the foremost areas of policy influence are the economic, financial, the broader agendas (in the form of priorities), and at the interface between the foundational and the operational (or functional), the ever widening area of 'standards', and similarly, governance. These are perhaps what might be referred to as the headline or first order policy drivers – flowing from these drivers are other related, consequential drivers. For example, as a result of constrained government funding, universities have pursued strategies to diversify their sources of revenue, not least among these is an expanded focus on internationalisation, specifically by increasing the number of enrolments of full fee paying international students. This is particularly noted by university leaders.

The data and our leaders imply a distinction between economic and financial policies. This boundary is not always mutually exclusive, but does suggest a useful framework for analysing the types of different policies and how they affect universities in different ways by example.

First, let us explore the distinction between the economic and financial policy areas as they relate to universities (and perhaps more generally). In the view of many of our university leaders, policies that are based on economic principles are policies that aim to positively impact Australian gross domestic product ("GDP") or improve the productivity of the nation through the improved productivity of its workforce. This has been expressed by university leaders in terms of the effect of policies based on a

“more educated public” resulting in increased productivity, and therefore improved GDP outcomes – this has also sometimes been described as “social engineering” on the part of the government. Even though increased internationalisation has very much been the effect of government funding constraints, the Australian Government tends to characterise this (at least prior to the Covid-19 pandemic) as a boon in exports, with international students, according to some measures, being Australia’s second or third highest source of export income – and significantly contributing towards GDP too when the local spending of international students is also taken into account. So, the basis for such policies or the activities spawned by them are economic in nature, and can be couched in terms of GDP, productivity, export income, economic ‘multipliers’ and the like. Whereas, matters such as direct funding to universities (whether for teaching or research) is often characterised as being in the financial domain – firstly, affecting university budgets and resources. In terms of their impact, policies do not always neatly fall into one policy area, as we will see from the later analysis and discussion.

So that certainly - that growth agenda has been you know partly based on the business model as actually there has been a fair amount of social engineering and government input. ... , but governments have been really prepared to buy the argument that the more educated the better and they have I think foolishly equated more educated with percentage of the population with a degree.

... But definitely it's social engineering. So we've got productivity report that shows that the national - gross national product increase was productivity increase that comes with you know a person - I mean the economy staff had a field day at demonstrating the benefits of a greater take-up of higher education by population and so there has been that kind of blind, yep let's get you know 40 per cent of our people aged between you know et cetera.

Well, in this country, overwhelmingly, the pressure has been the research arms race, I would call it. The fascination with international league tables and ranking systems, and the

determination to have a few universities in the country that competed on the international stage - but then the other thing, of course, has been the economic imperative, which drove Australian universities in the '90s into mass recruitment in Asia.

Above all else, funding is held to be the most influential driver, policy driver, of all of the factors affecting the modern Australian university. This is characterised as a financial policy driver. It is a driver that has inherent complexity and has resulted in a myriad of complex responses on the part of universities (and their stakeholders). The quantum of funding and the shape of that funding, including its conditions, have profoundly affected universities – their day to day existence and activities and has been forcefully argued, also affecting the core of the university. The leaders in this research contend that funding (and the associated resources) are the highest order driver and influence and other drivers, even other policy drivers are of a lower order, or in some cases, 'red herrings'.

Clearly the government funding environment is a major controlling factor. I suppose one of the things, though, that has changed and has made us more like businesses is that government funding forms a smaller part of our overall income than it used to. Therefore we're again in competition with each other as institutions for the commercial dollar, wherever that comes from.

... certainly the per student, the per capita Federal funding has declined and as a group, the universities went international in a big way, driven in part by the need to make money out of them.

The key driver of all universities has been money, finance. Between 1996 and 2007 on average universities got two per cent wage increase each year or two per cent increase, I'm sorry, in its operating funds each year. Wage increases were running at an average of four per cent and that's – our major costs is university. Where somewhere in the 60 to 70 per cent of all of our costs go on wages. ...

So commercial considerations came into that drive

The funding policy driver has many dimensions that may appear to be linked to other policy determinations. Funding policy formulations have affected the amount of funding expressed as the total amount of dollars, the full-time equivalent number of students that will be funded, the amount of funding per student, the mix of funding between the Commonwealth contribution and the amount contributed by the student, the percentage indexation that will be applied annually to those government funds, and in the realm of research, what research items will be funded, how research infrastructure will be funded (the changing formula), will research be funded on a true 'economic cost-basis', etc. In addition, will there be an uncapped, unlimited number of funded places for students (on an on-demand basis), as has been the case in the past (particularly following the Bradley Review, 2008), or will this be constrained. How will the level of government funding be varied for different university degrees and fields of education, to say encourage enrolments in areas of high employment demand as identified by the government, industry desirable areas? There are indeed many parameters of financial policy that can be adjusted, and many of these have been used by various governments to pursue policy objectives. Some of these adjustments have been underpinned by notions of user-pay principles, or perhaps user-benefit. This draws on a distinction between, in the case of students and graduates, attempting to determine the benefit that accrues to the public or community at large, versus the benefit to the individual graduate, the private benefit – and adjusting the government-student fee contributions accordingly.

4.5.3 Policy – 'standards' & other policy directions

Other government policies shape the direction of universities through a regime of standards, with the standards covering many areas of the university (Student Participation and Attainment; Learning Environment; Teaching; Research and Research Training; Institutional Quality Assurance; Governance and Accountability; and Representation, Information and Information Management including information for students), and others assigning national priorities to be pursued, which outlines an agenda for research or priority areas for university degrees and education. With these priorities funding is typically

attached. Our university leaders pointedly remark on the important influence of external agendas, both government and industry.

Universities have argued for many years, and this is also forcefully contended by our university leaders, that a combination of these policy drivers have resulted in universities responding through the development of new business models – the models are both outward facing, affecting the interactions of universities with their external stakeholders and the overall outward focus of universities, and internal business models. These important responses will be discussed in detail in the sections concerning university responses to change drivers.

That's always seemed to me to have been a key parameter in what was driving our international strategy. So essentially we get funded - we get a lump of funding associated with students and out of that we have to do everything. So it's always been a cross subsidy sort of business model. Then international students gave us the opportunity to get more resources to do new things. But we still don't get - apparently we still don't get sufficient funding for research.

The particular policy drivers do not operate in isolation from one another, and often feed into one another in the manner in which they are ultimately implemented – standards, for instance, relate to not only teaching and research, but also governance and the business viability of the university. As noted in determining the apportionment between the government fee contribution and student contributions, in relation to a university degree at times the value of the associated benefit to the public or society at large and the private benefit to an individual graduate has been taken into account.

4.5.4 Convergence of Policy

While a clear distinction can be drawn between many financial as opposed to economic policies, there are clear examples where the financial and economic policy elements can be seen to converge.

Policies concerning funding, where it is contended have led to inadequate funding and investment in

universities, have led to the pursuit of international students. At the same time the government promotes this growth in international student enrolments as an achievement in growing exports and significantly contributing to Australia's Gross Domestic Product, GDP. To support many matters that are associated with this growth, the Government instituted the Education Services for Overseas Student Act, 2000, or otherwise known as the ESOS legislative framework or ESOS Act, which establishes legislative requirements and standards for the quality assurance of education and training institutions offering courses to international students who are in Australia on a student visa. Our university leaders recognise this convergence:

[In relation to government funding policies and exports, international students,] I think that they're the two sides on the same coin. It is because governments were not willing to invest properly in tertiary education that the universities have had no other choice than to seek international students and then that has created the realisation that far from requiring you know further investment you could actually now milk a sector which you had starved of funds.

[Impact of government funding – over exposure:] [Even with the increasing reliance on international student income, the financial statistics still support this proposition.] In Australia, you've got these whole - these universities that have built their systems based on government funding for teaching. So we don't - we'd never have thought about, until the recent international student push, of other sources of teaching income. So we - I think in that sense, universities were less prepared for the competition in Australia because of their reliance - it's almost like welfare.

This research aims, amongst other things, to explore and understand what it means to lead a university and to provide leadership in this complex and ever changing policy environment, across many of the organisational and leadership levels of a university.

... policy throughout, I think policy - external policy, policy by Governments has played an important role in a lot of the things that we do - economic policy, governmental policy - the way that - and of course customer demand, if we're going to call them customers.

So that is one area where the money, thus the people that control the money, which is the Government by and large and industry, they would kind of set the priorities for the research. So they do control the university.

... Clearly and indeed sometimes the line is crossed. ... you cannot tell me that if you trace a lot of the research reports to where who is doing the funding, that there is not some benefit. Now often they try to be as independent as possible and they don't cross the ethical line but many do in fact, many do.

If the university is really performing at a high level in research in terms of the quality of its research and its international esteem, we're in a very good place. It has to be done in a way where we're able to communicate the benefit of that to our political masters, which is increasingly important.

4.5.5 Policy – higher education system and structure

As earlier noted, government policy can be seen to significantly affect the shape of universities through a wide range of policy interventions. These are not limited to financial and economic policies. Policies concerning certain 'standards' or those that define universities by a common set of activities have also shaped the modern university in Australia. Our university leaders highlight that this has led to not only a consolidation of institutions but a narrowing of diversity between them – they could be regarded as being homogenous:

There is a political agenda that seeks to homogenise and I think there is a - as the market matures if you like, there is a definite need for universities to differentiate.

But the problem in Australia is that, since the Dawkins reforms, the definition of Australia is very narrow. Dawkins talked about the unified national system, and of course, what he did was take a whole lot of different institutions ranging all the way from research universities through to performing arts schools that had no research at all, and bung them all together and call them all universities, and insist that the definition of university was research. So, then you have this situation where you've got 39 institutions in this country all being called universities, all really forced to feature research, even though quite a number of them have no great roots in research and probably would be better off not doing it.

... I think in terms of our offerings we're all very similar and obviously, because I can talk more about business, part of that is because of accreditations that we've all got planning accreditation, [re-] accreditation, finance accreditation, so we have to be fairly similar.

There's a quality framework which imposes a structure of homogeneity into the sector because we all have to aspire to having a certain quality framework, which in some ways takes the edges off the institutions. So you get more normalisation.

There are a number of key features of the modern or contemporary university that represent a 'duality' of character. That is, they can reasonably be regarded as having a dual character of being both drivers of change and necessary responses to change. In particular, internationalisation, technology, and the broader student dynamic (as affected by shifting student expectations and direct policy interventions) are clear examples of this duality. It is for this reason that internationalisation, technology and the student are each separately discussed under the sections concerning both change drivers and the responses (to those drivers).

4.5.6 Internationalisation – the driver of change

There is internationalisation of the community, which includes research, and can be seen as a driver. However, the focus has very much been on growing international student enrolments, which is a clear

response on the part of universities to government policy and other decisions affecting university funding and resources. This resulting and rapid growth has led to the Government instituting the Education Services for Overseas Student Act, 2000, or otherwise known as the ESOS legislative framework or ESOS Act, which establishes legislative requirements and standards for the quality assurance of education and training institutions offering courses to international students who are in Australia on a student visa. This has itself drive certain changes in universities, including compliance with national standards – so the growth in international student enrolments has led to policy interventions requiring further responses by universities.

4.5.7 Technology – the global university market

Of course the consideration of technology as a means of opening up access to the global market in higher education is not separate from technology as being a key and emerging enabler for delivering education. It is by this means that the educational product, teaching can be projected beyond one's local geographical boundaries. Technology does allow for more efficient marketing offshore electronically: websites, social media, targeted electronic communications, data mining and analytics concerning focussed student cohorts.

... We take - the big trends of course globally are the information technology, right? The fact that you can - now if you're a top university with that - I take a marketing tact. If you're a top university with a brand name like Harvard or Stanford or Cambridge or Oxford and you package whatever it is - let's not get too specific. Whether it's an online course or whether it's a TED talk or whatever, putting your brand on there is going to get more awareness and more clicks or more people, than if we're the University of ██████████ going out to the global market place.

4.5.8 The Student – expectations and policy forces

Both the profile of prospective students and their expectations represent a major change and universities have had to respond to quite wide ranging implications arising from them. There are two distinct aspects to this: pressures on universities (as a function of government policy) to embrace and attract a more diverse student body – including aboriginal, indigenous students and students of low socio-economic status (“SES”) backgrounds, and within some disciplines improved gender balance (particularly across the science, technology, engineering and mathematics (“STEM”) disciplines). There is also the shift within the prospective student cohort itself, that is, a growing expectation to attend university. Many of these features of course do not exist in isolation. There are catalysts. There is a growing range of students admitted to universities with lower admission scores, and the growth of different pathways to university entry – this is driven by both an imperative to broaden opportunities for students wishing to study at university, with broader backgrounds, and the constantly expanding need for universities to grow their student intakes and therefore, their income. These are two different policy drivers. In terms of the former this is a part of some university’s own equity mission objectives. In other cases, it is the result of funding related policies, leading to pressures to increase student enrolments and the associated revenue.

I mean one of the drivers if we're looking at government funding now is all with students about how you are addressing the needs of lower SES students. Participation rates, Indigenous students and that's part of our review, we're looking at improving what we do in those regards.

...

So I guess that the big changes in the funding, the nature of the students coming here. The broader range, the emphasis to get into the lower SES, Indigenous look at people for science of course with no science background.

There are number of change drivers that have come to the fore throughout the interviews with academic leaders:

- Government policy: financial and economic
- Government policy: driving standardisation
- Internationalisation, particularly in relation to student enrolments. (This emerges as both a change driver and a response to change.)
- Technology: shaping access to markets and changing the enablers for delivering education.

4.6 Responses – enabling change

This section of the research focuses on the diverse ways in which universities have endeavoured to respond to these forces, or drivers, of change. As noted above, there are a number of areas of response that can also be characterised as being important areas that have driven change: for example, internationalisation, technology, and the student dynamic.

4.6.1 Internationalisation – growing student enrolments

As already noted internationalisation in universities may take many forms. A particular focus is of course pursuing the growth in international students. It seems that policies concerning international students followed the growth in this market. Internationalisation in relation to international students is itself driven by government funding policies, the adequacy of government funding to universities (for both domestic student teaching and research). The focus is very much one of teaching and growing student enrolments. Seeing internationalisation as an opportunity to expand resources has been seen as being *entrepreneurial*. This is a *duality*, a driver and response, a driver in relation to the community, and a response in terms of funding.

In this university the internationalisation of the community has been a huge driver of change - a positive one I think. So over the last decade the massive growth of international students on

campus and the delivery of programs for them. Much more slowly, the internationalisation of research as well. ... So we had international strategy just basically driven by teaching.

There is now competition for international students, which includes competition in the students' home markets. With the growth in international students in Australia, there has been increasing regulation in Australia – this is to amongst other things protect the reputation of Australia as a destination for international education. The international student strategy has largely been driven by the funding driver, the need to expand the university funding base. This of course includes a lack of adequate research funding. This form of internationalisation has been regarded by a number of the university leaders as a type of entrepreneurship, dynamic in terms of constantly responding to changes in an international market:

Well I think there were some individuals who saw - entrepreneurial people who saw an opportunity to generate some more resources in a way which was consistent with the mission.

So we talked about the international market and now we're also responding - that market - so what happened was we were operating a regulated domestic environment. Yes we had international students but then they surged so now we're much more exposed to the market. Now the market's changing on us again because the home countries are more competitive, third countries are more competitive. So now we're responding again by trying to figure out new ways of doing things.

... [Government policy:] Actually that's good, that's an interesting observation. So government policy might well be a response to that internationalisation of the market. So you could argue that yes those regulations are in place but they're not independent of what else you just described. Because they were the result of the government having a view that it should be maintaining a national reputation in the field and responding to fly by night operations, which is the response in many countries. That's true.

That's always seemed to me to have been a key parameter in what was driving our international strategy. So essentially we get funded - we get a lump of funding associated with students and out of that we have to do everything. So it's always been a cross subsidy sort of business model. Then international students gave us the opportunity to get more resources to do new things. But we still don't get - apparently we still don't get sufficient funding for research.

To further illustrate the point that has been made by our university leaders, a snapshot of recent international student income that was provided in 2020 (as set out in Table 5 below) indicates a significant level of dependency on international student income – this is in terms the number of students and fees per student, which are typically higher than those for domestic students. As below, the international student fees per university represent a maximum of 35%, and an average of 22%, of total university income. According to this Australian universities income data published this year, our research case study universities of the University of Adelaide, Flinders University and the University of South Australia relying on percentages of international student income relative to all income of 25%, 19% and 19%, respectively.

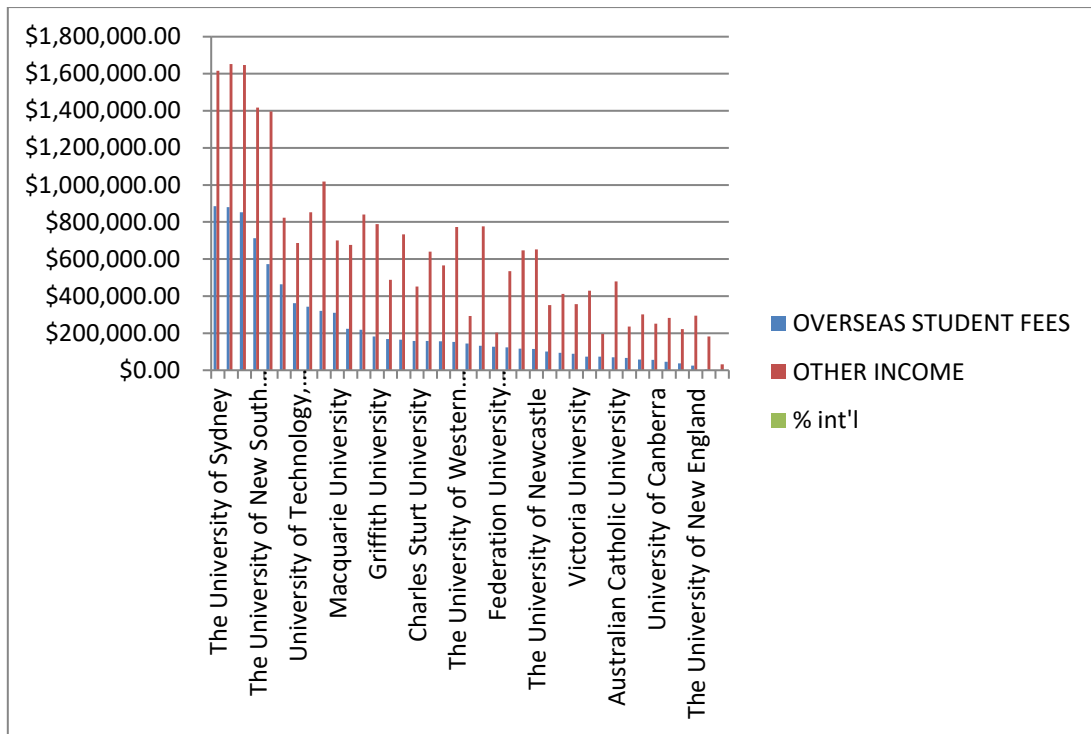


Table 5: International Student Income, Australian public universities, 2019 Source: Department of Education, Skills and Employment (Australian Government)

International student enrolments for the case studied universities over the past five full years, 2015-2019 inclusive, comprised 17-20% of all enrolments. This is consistent with the above data for all Australian universities, representing a significant proportion of student enrolments and therefore, revenue. The Table 6 below sets out the enrolment data for the University of Adelaide, Flinders University and the University of South Australia (2017-2019), showing domestic and overseas enrolments for each of them.

		2017		2018		2019	
		Enrolment Count	Enrolments % Change (Prev Yr)	Enrolment Count	Enrolments % Change (Prev Yr)	Enrolment Count	Enrolments % Change (Prev Yr)
Flinders University	Domestic	20,568	1.40%	20,505	-0.30%	20,357	-0.70%
	Overseas	4,735	3.20%	5,279	11.50%	5,174	-2.00%
	% int'l	19%		20%		20%	
	Total	25,303	1.80%	25,784	1.90%	25,531	-1.00%
The University of Adelaide	Domestic	19,262	-2.90%	19,072	-1.00%	19,305	1.20%
	Overseas	7,571	2.80%	7,839	3.50%	9,001	14.80%
	% int'l	28%		29%		32%	
	Total	26,833	-1.30%	26,911	0.30%	28,306	5.20%
University of South Australia	Domestic	25,683	-0.10%	27,222	6.00%	28,372	4.20%
	Overseas	5,412	-5.20%	5,743	6.10%	6,774	18.00%
	% intl	17%		17%		19%	
	Total	31,095	-1.00%	32,965	6.00%	35,146	6.60%
Total		1,513,383	3.90%	1,562,520	3.20%	1,609,798	3.00%

Table 6: Student enrolments of South Australian universities, 2017-2019. Source: Department of Education, Skills and Employment [uCube - Higher Education Statistics, 16 Dec. 2020, 10.50 am]

Even though, not unlike many other university change drivers, internationalisation has a dual character of being both a driver and a change response to a driver, it could be contended that it is predominantly in the areas of student internationalisation that it is most notable.

4.6.2 Technology – an enabler of teaching

Is technology merely the enabler or driven by student expectations - a means to accessing broader markets, to grow markets? Students have come to expect a better use of current technology in the delivery of university teaching. Has this been a factor in improving the delivery of teaching and providing greater flexibility, or have changes in technology forced changes in the manner of educational delivery? Technology can become a cost driver too, requiring increased investment, at the same time

as expanding university access to different markets, or an enabler of innovation, but constrained by funding. Technology is often promoted as a so-called game changer, or transformational, in being a means of delivering content in new and innovative ways, enabling new teaching paradigms and pedagogies. Technology has also been described as being 'defensive' which is suggestive of advances in technology forcing change and technology being part of a necessary response to other forces, such as globalisation and the market. The role of technology in higher education, or education per se, is an often debated space. The data from this research indicates that in this instance the role of technology could be regarded as being twofold: as an enabler of teaching in the delivery of 'learning and teaching' and having important pedagogical implications, and in providing access and to some extent shaping global education markets. In relation to enabling teaching, this includes the emergence of massive open online courses ("MOOCs"), full online learning, and 'blended' learning.

While technology is playing a greater part in learning and teaching, it can be seen as an important ingredient in improving the effectiveness and 'quality' of teaching, and also as a means of improving the revenue raising capacity of teaching, and perhaps improving the efficiency of teaching (e.g. reducing the cost-revenue ratio). The use of technology, like any other resource, can be constrained by funding.

... but the third big driver change I think has been the technology and the way of delivering content. So it's been a challenge to us to realise that our strength is not simply in content, but the delivery of the content and the manner of its allocation. But if we don't respond to that we'll be dead meat. ... I think on technology it's defensive. I think on research - international research, I think it's defensive as well.

I think universities now are at that cusp - every university is - with the online and the MOOCs and all this kind of things. Is what is the best way for a student to learn that lecture method? We all know it's [past] and yet we have buildings full of lecture theatres, right? So the infrastructure - and I think that happens in a lot of organisations, not just universities. Where infrastructure -

or that infrastructure is the IT infrastructure or the physical infrastructure, the design of space dictates activity, rather than the other way around.

... We have systems - whether they're IT systems or lecture theatres - that are based on a model, which is maybe not the right model for today. So changing is - because that's my job, is trying to - not lead change, but coordinate the change. It's easy to write projects. It's easy to write things, but doing them and deciding what it is that actually needs to be changed to have an effect...

... I think one the other way they can be innovative though is to try and be smarter about what they do. This comes back to technology in the classroom and those sorts of things that I think there are lots of opportunities out there that a few individuals are good at but as an institution we're not good at supporting. I think that comes back to the funding problem again. To make those sorts of changes we need support; we need resources; we need time; we need to go on a learning curve, those sorts of things which are quite hard.

4.6.3 The Student – responding to expectations and Government

Responses to achieve growth in student enrolments include a reduction in university admission and selection criteria (including university entrance rank scores and other forms of tertiary entrance score) or its equivalent to broaden admission criteria and increase student numbers – this has included widening entry pathways, and reducing the number of prerequisite subjects. These responses have not been without consequences – the addition of foundation, transition to university programs and courses.

These changes to the student dynamics have affected universities structurally, the shape of its workforce and staff; for example, the emergence of teaching or education intensive roles, as noted.

This is a growing trend:

... It probably has affected what they teach so much as how they teach it. So there's much more technology and trying to fit things in the classroom. It might have affected what they research because of funding, because of what gets funded. There is some change though because now most universities have teaching focussed or we call it educational focussed positions which didn't exist before. We always had research only posts, normally grant-funded posts but now I think probably about - my guess would be about 60 per cent of universities have some sort of teaching only or education only.

To recognise and accommodate these responses, universities have substantively altered academic degree structures, such as the tiers of pre-requisite subjects to move from one year of the degree to the next level, year of that degree, and sometimes bifurcate a degree into ordinary and advanced versions of the degree, with the latter requiring a fixed, higher rank to be eligible for admission.

...So we got rid of the pre-reqs and it hasn't been a disaster. That was a major, major problem for many of our academic staff. If you scratch the surface it's still there. What was great was that we were able to bring in the BSc (Advanced) to show that we can still get the quality students in and so that's shut that argument up. It's always about like we were saying before, a balancing act. You have to make sure that in easing something up you can still deliver, in this case, quality students. So that's been another major change for us.

These forces and changes, and the responses to them have not been without consequences. Even where the responses have comprised actions to increase student enrolments and revenue in this way, they have not been cost neutral – there has been an increasing marginal cost to support many of these students, or there should be, to provide additional or different forms of support for these students. This is relevant to the later discussion about university cross-subsidy models, where for example, universities apply a portion of student teaching revenue in support of university research. Our academic leaders point out some of the implications of having a larger 'tail' of students, and resourcing:

Yeah the tail of students that we're taking ... I think it's true, we do have a bigger tail. I think in some ways we've caused our own problems by catering to that tail by increasing student support. Not that I'm saying we shouldn't support students but a thousand different ways of helping students that it leans towards spoon feeding. Therefore then that comes back to their expectations are lower because they expect to be just given the information. That's a huge generalisation because there are still some fantastic students.

...

... increased the burden on academics and that has changed academics attitudes as well. Academics were very much about their research and their developing their own knowledge I guess whereas now they seem to spend a lot more of their time dealing with student complaints and filling out the hundred and one forms you have to fill in; the bureaucracy seems to have increased.

There is a nexus between student expectations and university rankings. Research rankings and overall global rankings are becoming increasingly important to universities, even influencing the strategies of universities. These rankings seek to measure many things, or are in fact a composite measure of many factors. Some rankings focusing on research, others on teaching – both by field, and assigning an overall institutional ranking. Research and other rankings have been seen to influence student choices in where they might undertake their degree (even non-research, coursework degrees). Global and local rankings, competing in a global marketplace – there is an important role for technology in that marketplace – providing greater access to markets and changes in the delivery of the academic product, especially teaching and education.

The research agenda at this university makes it - gives it its reputation. We're not renowned for producing lawyers and accountants we're renowned for being a research intensive university.

That really costs but at the same time if we didn't have that reputation would be getting the international students into our business programs and the like.

There have been a plethora of responses to these drivers of change, with the dominant responses focussing on:

- Internationalisation of student enrolments
- Active diversification of revenue sources – through internationalisation, 'commercialisation' (in many forms)
- Business-like actions and operationalisation – this also encompasses commercialisation and embracing a more entrepreneurial disposition.

The above responses are not mutually exclusive to one another, and are co-dependent, perhaps especially so in relation to universities tending to being more business-like.

4.7 The university as a 'business'

Perhaps the most far reaching response to the primary forces affecting change in and across Australian universities is the drive, response to become businesses, or at very least, more business-like, more 'corporate', a set of views that have been expressed by our university leaders in a number of ways – and illustrated persuasively through their lived experiences and examples. The leaders have to strike a balance between the 'corporate' and the academic dimensions of their day to day responsibilities, a challenging equilibrium. It therefore warrants a specific section in this research.

A business-like disposition is an increasing feature of universities or university behaviour. Is this distinct for commercialisation, being entrepreneurial, the various forms of university innovation, or even the growing engagement strategies of universities? Perhaps a distinction should be made between industry and community, and non-industry engagement. The leaders seem to be speaking in relation to innovation and entrepreneurship as enablers of university business objectives, improving viability and

particularly diversification of funding sources. The strongest driver for the overall increase in business-like actions is the shift in what is the dominant source of funding for Australian universities, Australian Government funding (for both teaching and research).

This new business-like, managerialism is also marked by metrics – continuous measuring of performance: metrics that are important to university stakeholders (e.g. government), and others that are imagined and devised by the universities themselves – critically these include research performance, citations, revenue, etc. and for teaching, attrition, completion, rates, student satisfaction (which as one executive dean mentioned, can be a mere measure of popularity rather than of academic rigour).

Under the rubric of being business-like there is the ongoing restructuring of the university organisation: centralising, flattening structures, the growth in PVCs, directors, etc. targeted retrenchments which all have to be funded, process changes (sometimes improvements, other times less so), growing complexity. Corporatisation has taken form in various shapes – typically some form of centralisation, enabled through restructuring. Many of these responses and ‘business’ actions seem connected, one leads to another or is used to enable the other, or are facets of one another: growing managerialism (which is also reflected in the research literature), performance management, matrix management, performance metrics (Guthrie and Neumann, 2007), etc. Our university leaders have shared their observations, indicating the trends towards a business or business-like organisation (and some of the implications):

But it's become universities, [REDACTED] everywhere has become much more competitive. There is much more scrutiny of what somebody's actually doing. Performance management, we've become much more professional at. So as a university in some ways we become – universities, let me talk plural. We've become much better at what we do and how we manage but some people argue we've become more managerial.

[E.g.,] Ruthless with the workforce and actually moving to really be quite strategic in developing their research capacity and profile and their infrastructure. ... - we can see it in their success - different ways of measuring their success and so on.

...

But I - you can see - so we now have the next version of ResearchMaster or Aurora happening. But - that's another example. You look at University of Western Australia, which along with UQ, developed the [Q Score] or the [Socrates Index], which is a way of measuring individual research performance. They've been developing these over a number of years.

... we've done things like we've restructured. We've had one or two waves of targeted retrenchments. But have we really changed the culture and behaviour in significant parts of the university? We rate well for our size - one or two, for example, in terms of NHMRC funding per FTE, nationally. But we'd have the most lowly rated Hums disciplines in the country. Why is that? I'm not pointing the finger at the people involved. You can argue that there have been factors, such as and including professions with huge teaching loads, international students.

The restructures we've gone through - forming schools, for example. Also no signs that that really improved some of the difficult areas, in terms of performance and accountability.

... How else has the university responded? I think - to me, it - there are huge areas of inefficiency and lack of accountability, as I've talked about, in the university. Some are in academic units, but I think huge amount of it is centrally. If we were ruthless, if we had senior management that would address that, you could get tremendous savings. I believe you could cut a third out of the centre and we wouldn't see any difference at the periphery. Probably see an improvement. It would force streamlining of processes. We've got a lot of processes, which

are just - I think they're very poorly designed. ... unnecessarily complex. Don't make sense.

They fail to understand how they don't make sense, centrally. It sort of permeates HR, finance, certainly T&E right through.

... . I don't have a problem with corporatisation of universities, if they were just good at doing it and in using it. I just see it as being systematic, organised, accountable and efficient to deliver on the fundamental mission of universities. Got no problem with that. It's when they just do it really badly and run round talking about learnings and a whole lot of other hideous corporate speak, with no meaning behind it and no actions.

...

Well I think the - I've got no problem with cross subsidisation. I just like it to be very explicit and for those who are being cross-subsidised to know it and be making every effort. Be supported in making every effort to make enough money to support their activity.

Further on 'corporatisation', its growth has at times been evidenced by the growth of so-called middle management (as part of a management-class within universities) and the associated clustering of responsibilities around those roles. This is further reinforced by Marginson and Considine (2000) and their description of the 'Enterprise University' and its features and the roles. During the researcher's time as a university manager with all three South Australian universities, he too witnessed the accelerating growth in these managerial roles, such as Pro Vice Chancellors (for seemingly everything), directors, associate and deputy directors (for seemingly everything else), and the like.

... just on the corporatisation stuff, a lot of what that has done is change middle-management in universities. So we used to have elected heads of schools and elected heads of faculties and now they're all appointed. That has changed the landscape a little bit I guess both good and bad. So an appointed head can do things that are unpopular and not get booted out the next time their term comes up which is good. But, on the other hand, an elected head gets a

stronger following, so they get more support in many ways. So I'm not necessarily saying it's better or worse but it's different.

...; whereas previously I think academics were a bit more independent and did the right thing anyway without anyone leading them. ...

...

To be reactive, not to be strategic. That's probably inevitable because every time the government changes we get a different - we get the AQF and then we get the ERA and who knows what's going to happen with TEQSA now that a new government's in.

... I think the government change has forced us to be reactive but it would be much more useful I think to be strategic particularly at department and faculty level. Obviously at university level too, but at department and faculty level I found when I was a dean I never had time to be strategic because I was always reacting to something.

So suddenly there'd be a crisis and someone would say we must do this and we must spend days and days working on reports and doing things. So you mainly do all that as well as trying to do operational things. So my strategic plans were a few dot points that I was always going to do and I never got to them. We did do strategic planning but even our strategic planning was more about swot analysis, it was more about ...

... It was, very operational. In fact I took a decision in the end to only become operational because we had a faculty strategic plan; we had a university strategic plan. So I said let's not have a school strategic plan, let's just have an operational plan ...

There is an attitude that academics are essentially a criminal class of wastrels. That really - when you see how - if you see corporatisation in different areas and so on under way or taking place, it always starts from that assumption largely. ...

In terms of becoming efficient - this university must have been the last in the country to become electronic, I guess, in a sense. So at least they got on with it, but they made the most appalling decisions re how they would introduce that. So very bad decisions around things like PeopleSoft, ResearchMaster - it goes on.

The important concepts and terms innovation, entrepreneurship and commercialisation, and the activities represented by them have become synonymous with the shift towards a business-like, or corporate, organisation on the part of universities. This is whilst it must be acknowledged that they are not necessarily interchangeable. It can be argued that they have become core enablers of moving towards this 'business' orientation. Accordingly, an examination of university innovation and entrepreneurship, and commercialisation now follows, as analysed and experienced through the lens of our university leaders. It is useful to note that these themes are also significant in the research literature – however without directly recognising their significance as enablers of the functional, 'business' dimension of universities.

4.7.1 Innovation and entrepreneurship

Innovation and entrepreneurship shifts in universities have not been drivers in their own right but rather responses to other forces, such as being a response to changes in government funding models, with innovation and entrepreneurship being a focus to "source funds". This has parallels with universities becoming more business-like in general. On being entrepreneurial, universities are typically poor at taking risk or otherwise being entrepreneurial. This is particularly so at 'higher levels of aggregation' of management within the university, where entrepreneurial activity tends to "drop off". One might even say that entrepreneurial activity tends to occur at the individual level. One strategy that was articulated was to 'quarantine' and balance entrepreneurial activity within an academic unit, such as a faculty, and balancing the investments across and within that unit.

... But I think the change has come - and you were saying about what pressures are - obviously they've changed the funding models. That's been the major - so government policy changes to funding have been the major pushes to force universities into thinking differently. In some ways that's bad and in some ways it's good. I've found, having been in universities for 21 years, most of me thinks it's bad. But, on the other hand, it has forced them to be a bit more entrepreneurial and a bit more innovative in how they source funds and what they do with those funds when they get them. ...

... we're not very good at taking risk or making - generally we're not very good. So there might be individuals who are entrepreneurial but as a group we're probably - where the group as a whole is involved we're probably less entrepreneurial than...

... As you get to higher levels of aggregation I reckon that drops off. So if you had an entrepreneurial indicator it would be less higher up. Because there's more people involved in the decision making and some of them are distant from the business itself. Yet their responsibilities are regulation or finance or something like that. So they don't want to have - they'll act as a break on the individual - entrepreneurship at the individual level.

... if I can quarantine an activity to be totally within the faculty I can run with it. So we can, for example, we've got this institute called international trade, basically I'm responsible for it. It sits within the faculty, I can push really hard there. I can invest in it, I can put more positions into it, I can agree with the director that we're going to reorganise all the staff in it. We're going to have new areas of activity. I don't have to go check with anyone else. But if I want to run a new program I've got to go...

4.7.2 Commercialisation

Even though commercialisation has also been mentioned under the broad rubric of being business-like, or being a business organisation, it does warrant specific mention. It also has a significant connection

to the research literature and has been referred to as Academic Entrepreneurship in seminal works by Shane (2004) and others, and can take many forms, including the licensing of research, the creating of spin-off companies, and as pointed out by our university leaders, consulting and contract research.

Commercialisation can be seen to have a number of aims. This is in addition to generating income but not mere income, rather income that represents a surplus – rather than being loss-making.

Commercialisation is another form of engagement and perhaps a way of disseminating the underlying knowledge, and providing a broader societal or community benefit. Our leaders have associated commercialisation variously with being a business, business-like, innovation, being entrepreneurial and vice versa – that is, commercialisation is perhaps a form of or manifestation of all of those activities.

It is not useful to separate the rapidly growing need for universities to demonstrate their 'impact' in its various forms and a shift towards more inherently applied research, and commercialisation, and even a more business-like disposition of universities – there are connections between them, whether thematic similarities, or as enablers for one another. This also includes the perceived benefits of 'corporatisation' which many see as a proxy for universities being more business-like or capable in a business sense – being more professional organisations, efficient even. This has also been manifested as research consulting, flowing from many of the earlier described forces, imperatives, priorities and agenda: diversifying and growing revenue (and margins), demonstrating 'impact', and dissemination of knowledge (being core and foundational to the university mission):

... we would like to think that much of our research has impact but some of our research is not going to have impact for 20 or 50 or 100 years and therefore it's not bad research. ...

So if I could do anything I won't get paid for it I would do high level theory which has no practical implication at all at present but eventually it will. So yeah I don't think we should be obsessed about measuring impact but I don't think we should ignore ways which we can

measure impact but we have to be broad in our thinking about it. ... So you've got to be sensible about what you mean by impact.

... We have to be careful that we don't turn research into consulting for business.

... just on the corporatisation stuff, a lot of what that has done is change middle-management in universities. So we used to have elected heads of schools and elected heads of faculties and now they're all appointed. That has changed the landscape a little bit I guess both good and bad. So an appointed head can do things that are unpopular and not get booted out the next time their term comes up which is good. But, on the other hand, an elected head gets a stronger following, so they get more support in many ways. So I'm not necessarily saying it's better or worse but it's different.

... ; whereas previously I think academics were a bit more independent and did the right thing anyway without anyone leading them. ...

...

To be reactive, not to be strategic. That's probably inevitable because every time the government changes we get a different - we get the AQF and then we get the ERA and who knows what's going to happen with TEQSA now that a new government's in.

... I think the government change has forced us to be reactive but it would be much more useful I think to be strategic particularly at department and faculty level. Obviously at university level too, but at department and faculty level I found when I was a dean I never had time to be strategic because I was always reacting to something.

So suddenly there'd be a crisis and someone would say we must do this and we must spend days and days working on reports and doing things. So you mainly do all that as well as trying to do operational things. So my strategic plans were a few dot points that I was always going

to do and I never got to them. We did do strategic planning but even our strategic planning was more about swot analysis, it was more about ...

... It was, very operational. In fact I took a decision in the end to only become operational because we had a faculty strategic plan; we had a university strategic plan. So I said let's not have a school strategic plan, let's just have an operational plan ...

There is an attitude that academics are essentially a criminal class of wastrels. That really - when you see how - if you see corporatisation in different areas and so on under way or taking place, it always starts from that assumption largely. ...

In terms of becoming efficient - this university must have been the last in the country to become electronic, I guess, in a sense. So at least they got on with it, but they made the most appalling decisions re how they would introduce that. So very bad decisions around things like PeopleSoft, ResearchMaster - it goes on.

4.8 Balance – achieving an equilibrium

There are many types of tensions to be balanced in and across the university, some at the highest level of our considerations, or at the philosophical level of the university, and others that are enabling, but also important. At the philosophical or as we describe in this research, the foundational dimension of the university, there is the tension between the foundational elements of the university and their responses to the forces, change drivers. This has resulted in a diverse range of responses to enable this balance or to give effect to the broad response to be business-like. This high level tension is represented in a number of ways: the extent to which the conduct of fundamental research is core to the university, and the pressure to emphasise applied research in preference to fundamental research. However, as one of our senior university leaders indicated, it is not a case of either one or the other – it is important for universities to value both, and understand research translation, and strategies to ensure

diversity and balance at the same time, balancing the portfolio of activities, rather than expecting each academic to achieve success in exactly the same way and same measure.

Our academic leaders face the daily challenge of balancing and resolving a myriad of conflicting forces with and across their universities, to enable the university to be (to quote the researcher's former academic manager, 'boss' and mentor) "both academically and financially viable". This statement is a particularly apposite means of encapsulating many of these tensions. Whilst the tensions can be indeed wide-ranging tensions, they often share themes, and can be categorised in the following manner – that is not to say that they are mutually exclusive from one another.

4.8.1 The foundational and functional (or operational) dimensions of the university

This has often manifested itself as a university endeavouring to be entrepreneurial while pursuing the core mission of the university, sometimes described as the 'business' of the university, the academic mission of the university. As noted earlier, one of the emerging frameworks of analysis involves classifying the dimensions (or attributes) of the university as being foundational (or philosophical) or functional to the university. The foundational being those attributes (or in the case of the foundational, the elements) or combinations of elements that distinguish a university from other organisations, even other knowledge organisations.

You could probably take your question about entrepreneurial behaviour back to your original point as well. So is that consistent with or contradictory to the fundamental - can a successful university be managed by entrepreneurs?

... [Yes.] But what I'd be expecting them to do is to operate in a way which reflects the - again the fundamental proposition was that those two things that distinguish a university and the way that the organisation is created to sustain them are really valuable. So what the entrepreneurs are doing is essentially capturing the value of that that structure offers. As circumstances change they have to do that in different ways but it's not changing the fundamental nature of

the business. So that would be a terrific lever of an institution who understood the fundamental values but was able to continue to redirect it or reposition it or reorganise it. In a way that succeeded in the environment, which has to keep changing because of all sorts of...

4.8.2 Academic and business conflict – for-profit imperatives

The tension between the academic imperative of the university and its business persona is clearly evident, the seemingly equal goals of advancing knowledge in various ways and making a profit (or a surplus). This is with respect to a not-for-profit organisation, as is the case with most Australian universities. The following remarks highlight that this tension is one that is never fully resolved but is dynamic, seeking constant resolution. Importantly, one of our leaders suggests there might be a 'tipping point' as implied by other leaders. This leader works at the boundary of academic-commercial endeavours, and as remarked elsewhere, sometimes declines commercial work to ensure an academic balance from time to time.

[Enquiry; exploration; investigation:] So I think that still universities have that focus that they're about changing how we think about things; and allowing the odd questions to be asked; and the obscure things to be asked that people perhaps coming from a business background, in a business world they don't necessarily always think of because they haven't got all the strange, unusual type of people that you get in universities. ... I would hope that the goal is still about contributing to knowledge and advancing knowledge whereas in business it's about making money, but the two aren't mutually exclusive of course....

...

So that could be just purely that that's what they need to do. But I feel like we're pushed too much towards making money and not enough towards quality and advancing knowledge and discovery and those sorts of things.

So that's the passionate side of things. But - so we are a business but we have responsibilities to an academic environment. They are very hard to juggle because as I said we've got two metrics going here. Academics prefer how many publications you have, are you on a panel, are you - can you provide time for committee work, can you do all that stuff. At the same time we're self-funded and we're trying to run a business. So none of those activities are actually helpful for the business. ...

... but it is true that there is a respect for scholarship as opposed to the bottom line and that is one of the big conflicts of course now.

... they're allowed to express that quite openly which in a lot of organisations of course you've got a vision, a mission and bang that's it. You can't step outside that line.

... So it's a game where you have management responsibilities and all those things and there are some areas where they will toe the line but when it comes to anything around what they might look at in their own science or their discipline or whatever, the executive dean wouldn't dream of interfering in that it's very much their realm. That's quite different from most other organisations you might work in where you toe the management line.

...

I came back in the 90s and it was still a bit that way, but boy since - the last ten years the whole need to balance the budget and live within your means and produce and perform whether it be for the ERA or whether it be for the ATARs of the students coming in, competition for students et cetera that's just changed things dramatically.

Because we pay for everything that we use and we're externally funded. I keep the university because of - I like the university ethos. It is an impartial, supposedly impartial, independent sector. Having said that I've had to - I got a business case approved by the vice chancellor to

have us retain our logo and be kept separate seeing it perceived as separate from the university.

... Because there is some research going through the university that is company sponsored and what not and it's going through ■ which is where we go through. There could be perceived conflicts of interest then as us being an impartial or independent body if the research that's coming through the university is - so we have a few issues there about whether the university is actually - at least in that case, an independent researcher because the funding is coming from for profit. It's not coming from the university.

...

So that could be a tipping point. Do you understand what I'm meaning in the future with some - if the research funding becomes more external than internal?

... Then it will lose that perception as being an independent research. Independent research is really important at least when it comes to drugs because - it's - I wouldn't say it's better quality it's more impartial.

Or, are we already at a 'tipping point?':

So that could be just purely that that's what they need to do. But I feel like we're pushed too much towards making money and not enough towards quality and advancing knowledge and discovery and those sorts of things.

...

"... the traditional role of the university is under threat."

...

... I think there is tension on it and I think particularly for the newer universities it's a bigger shift away from traditional values. There's no doubt that the traditional role of the university is under threat. ...

4.8.3 Strategies – complexity and cross-subsidies

To enable the university to exist in both its foundational and functional existence, the use of cross-subsidies across the university has become a key strategy and has become one of the hallmarks of corporatisation, along with the centralisation of a university's business functions, and to a growing extent the coordination of its academic activities (but most acutely the allocation of all resources, including academic resources for learning and teaching, and research). The cross-subsidies occur across many of the dimensions of the university: for example, between faculties, schools or other academic units, from a unit that is capable of generating surpluses to units less able of doing so, or are engaged in academic activities that inherently make losses (such as certain forms of research); areas with high levels of international student enrolments which are associated with relatively high revenues and higher fees; commercial, contract/consultancy research to subsidise 'fundamental' research or academic research outputs; cross-subsidies between 'central' units and de-centralised units (e.g. an academic school, or discipline), or of course, between teaching and research. These cross-subsidies have become part of an ever increasingly complex framework or matrix, essential to ensuring a level of breadth of academic activity to occur. If not for this strategy of cross-subsidies, universities would only pursue wholly profitable activities. That is not to say that cross-subsidisation does not present its own challenges – they are often opaque, and not appropriately recognised. Their true cost is often not clear. There are also risks involved – for example, an over reliance on a limited number of sources of high margin, profitable sources of revenue. This is most notably so in relation to international student enrolments and the associated revenue. There have been many significant 'shocks' to this revenue: exchange rate volatility, rapid growth in competition, and recently, the Covid-19 pandemic, which has impeded international travel and the movement of students.

... . I don't have a problem with corporatisation of universities, if they were just good at doing it and in using it. I just see it as being systematic, organised, accountable and efficient to deliver on the fundamental mission of universities. Got no problem with that. It's when they just do it really badly and run round talking about learnings and a whole lot of other hideous corporate speak, with no meaning behind it and no actions.

...

Well I think the - I've got no problem with cross subsidisation. I just like it to be very explicit and for those who are being cross-subsidised to know it and be making every effort. Be supported in making every effort to make enough money to support their activity.

In terms of responding by diversification of income, and applying cross-subsidies to fund expensive or loss-making but academically important activities, universities have had to balance their resources in pursuing international student income and contract research, of the consultancy-side of the business. Universities are overly dependent on international student income – for example, the over dependence of research on this income, to subsidise the cost of research. There are also cross-subsidies between different types of research, consultancy research revenue in support of fundamental research.

... Now all of our universities are reliant on international money. I would say 20, 22 per cent on average in Australian universities but it can range up as far as in to the 40s. That's now a key driver and many vice chancellors and deputy vice chancellors research because that's the other source of income, contract research and so on.

In Australia, you've got these whole - these universities that have built their systems based on government funding for teaching. So we don't - we'd never have thought about, until the recent international student push, of other sources of teaching income. So we - I think in that sense, universities were less prepared for the competition in Australia because of their reliance - it's almost like welfare. You rely on welfare; you don't get any job skills. You rely on government funding; you don't learn how to get other sources of income that allow you to do the things.

Because - just going back real quickly. It's clear from a university point of view that it's really rare that any research entity pays its own way. That without the - that teaching - and that's one thing a university can do that institutes can't do. They can subsidise research with extra revenue.

However, what are the limits of such models and subsidies, such as cross-subsidisation? Which, if any universities, understand the true costs of its activities, and the levels of cross- subsidy?

Essentially what we do is earn income on the things that people are already immediately willing to pay for and we use the income we earn to invest in more fundamental activities. So essentially we fund the - we get money for applications and we use the income from that to fund the basic research. So it's always - despite my concerns about it, it's always going to be a cross subsidy environment.

This researcher encountered many truly capable academic leaders, who did clearly understand these issues, and managed this across their academic unit. It was less clear whether a university, as a whole, possessed a similar level of understanding.

4.8.4 Diverse stakeholders – complex organisational change

Universities balance the needs of a complex and diverse range of stakeholders (Trow, 1998). These are in addition to the government stakeholder, a significant stakeholder and the provider of the single largest source of funds. The stakeholders include the community, comprising various communities of interest. This can give rise to a complex organisation, or universities responding in complex ways, with many responding by evolving into matrix structured organisations. This complexity of stakeholders is in contrast to most companies where it could be argued that there is one dominant stakeholder or stakeholder group, the shareholders.

It's inevitable that we've moved from being collegial organisations run in a fairly amateurish way to pretty large organisations having to be run in a much more professional way. There's always a danger when that happens in moving from that that it's perceived to be corporatism and impersonal.

The teaching, research, the community engagement, we chase dollars. I've noticed the number of universities, for example, in the last two years, there's been some very senior appointments and teams of appointments made in what you might call the engagement, enhancement and fund raising area in universities. We're getting very professional about this now so we've done the international students. We've realised, oh, that's a little bit shaky so, look, we need to be looking at fund raising itself from whom, what, our alumni, whatever it might be. ...

... more professionalization and more demands for professionalization. So I have, in my business school, a full time accreditation officer.

... They have to be more skilled, there's no doubt about that. I haven't but if you went back and had a look at the average level of employment of professional staff or maybe you do a bell shape distribution. There's no doubt that the bell shape now in 2013 would be more to the right of the 2003 bell shape. So we've got higher levels, no question about that. Structures are becoming more complicated, we're all in matrix structures. The administrative people are a very important part of the team.

There have been structural changes to balance the academic portfolio. For example, the appointment of a Chief Academic Officer in an Australian university. This differs from the role of Deputy Vice Chancellor, Academic, but exists in America (e.g. Stanford University, where it has broader responsibilities).

If you think about the way in which the operation traditionally works, you have a deputy vice chancellor academic who has to use influence and persuasion to have the academic teaching and learning strategy of the institution brought over the line, that direct reports to a DVC are often just the portfolio and the administration component. So what I did is I have the pro-vice chancellors all report to the DVC - report to the provost as the chief academic officer. Their budgets are determined through the chief academic officer. So you'll get a budget balancing across the divisional structures.

So it gives you a whole of institution perspective on the academic mission base, whereas individually you would have four PVCs or four faculty deans and four executive deans who would each be jockeying for a position within the institution and running their own enterprises. So I see it as a harmoniser. ...

4.8.5 Governance

Another senior academic leader explains the importance of governance as a key facet of that university in balancing the academic and operational or transactional aspects of the university. This is a further example of the manner in which this day-to-day tension is addressed.

The new regulatory structure nationally with TEQSA does have in it threshold standards, a statement about a clear separation - ... - a clear separation between the academic and corporate governance of a university.

Now what that means is a good question. There are some interpretations which think it means a separation of academic life from management, in which case I'd be part of management. My interpretation is different from that which is it's a separation between the governing council which is headed by the chancellor and the academic governance headed by the vice-chancellor. In that case, I'm part of the academic realm rather than the management realm.

I think that's what it's intended to do. The governing council has corporate responsibility, in particular to do with risk management and finance and corporate governance. But it would be improper for that council to decide the content of a degree in biology. So that's my interpretation. I think that is a distinct part of what a university is.

... [in relation to the separation of these roles/functions] [i]t is a contested area but the University's claim would be, when it comes to a conflict, there is a separate sphere of autonomous judgement.

Amongst the academic members of the university, there is growing pressure to balance the activities of academics between research and teaching, and increasingly the burden of 'administration' work. This is often integral to addressing the vexed issue of academic workloads through the application of academic workload models, and even changes to the definition of the academic role. This has resulted in a mix of academic roles, which point to a strategy of portfolio management – rather than seeking to balance academic activities merely within each academic position, a university aims to balance the academic activities and viability across different organisational units, whether a school, faculty or a whole of university perspective. This has led to the development of research-only, intensive roles, and similarly, teaching only, intensive roles.

... but it is true that there is a respect for scholarship as opposed to the bottom line and that is one of the big conflicts of course now.

... they're allowed to express that quite openly which in a lot of organisations of course you've got a vision, a mission and bang that's it. You can't step outside that line.

... So it's a game where you have management responsibilities and all those things and there are some areas where they will toe the line but when it comes to anything around what they might look at in their own science or their discipline or whatever, the executive dean wouldn't

dream of interfering in that it's very much their realm. That's quite different from most other organisations you might work in where you toe the management line.

...

I came back in the 90s and it was still a bit that way, but boy since - the last ten years the whole need to balance the budget and live within your means and produce and perform whether it be for the ERA or whether it be for the ATARs of the students coming in, competition for students et cetera that's just changed things dramatically.

There have been further indications of the challenges in striving for balance:

... When I was a dean I spent a lot of time trying not to lose some of the good things about the old academics who've been here a long time because there was a lot of negativity towards them; that they wanted it to be like the old days; that they didn't want to do as much teaching. They always put their research above their students which is seen as bad but they also brought a huge intellectual something to us which I never wanted to lose.

... it was balanced across the school, not across individuals.

... So I was never a believer in force, which used to be forcing everyone to do all four areas. We always had teaching, research, admin and professional service, community service. So I think having education-focussed people is a good thing and having some people focus more on research is a good thing, and having others that do everything, as long as you have that balance across the school.

With these organisational changes, and growing organisational change, changes to roles, there has been a proportionate increase in performance management, the increasing use of key performance indicators (or KPIs)(Guthrie and Neumann, 2007), being applied to individual members of the university, its organisational units, and the university as an 'enterprise' (the entire organisation). These KPIs are

often a function of the performance measures of university stakeholders or as metrics that have been independently developed by a particular university to gain insights into an area of its strategic plan. For example, attempting to measure multi-disciplinary research performance, identifying particular journals as being 'multi-disciplinary'. This has not been without considerable debate.

But it's become universities, not just [REDACTED] but everywhere has become much more competitive. There is much more scrutiny of what somebody's actually doing. Performance management, we've become much more professional at. So as a university in some ways we become – universities, let me talk plural. We've become much better at what we do and how we manage but some people argue we've become more managerial.

Balance between the foundational and functional, or the transformational and transactional (as described by an academic leader) dimensions have been addressed through a combination of strategies and actions:

- Distinguishing between for-profit and other activities
- Internal cross-subsidisation of activities and organisational units
- Distinct governance between the academic and the business (or similar) dimensions of the university.

4.9 Emerging, concepts, frameworks & models

This research provides both an analysis of the lived experiences of our academic leaders and identifies the patterns of their behaviours and actions that represent their strategies and a number of the emerging models from those strategies. In general these actions (or responses to change) have the object of achieving and balancing the academic viability and the business (or financial) viability of the university – maintaining an equilibrium, which is a dynamic process, one of constant change and action. First, let us consider a range of the ‘balancing’ strategies applied by our academic leaders.

4.9.1 Portfolio management and research translation

This academic leader combines two forms of actions in addressing the need to achieve academic and financial viability. First, individual academics are not necessarily expected to achieve this balance as individuals – each individual academic may undertake different quanta of each type of activity, comprising, for example, fundamental research, applied research, consulting, teaching, professional service, etc. The mix of academic activities is viewed across the breadth of the academic unit (or as described by this leader and others as the ‘portfolio’). So academics are not expected to undertake these activities in the same proportions as one another. This form of portfolio management and balancing is described in the diagram below as Figure 17.

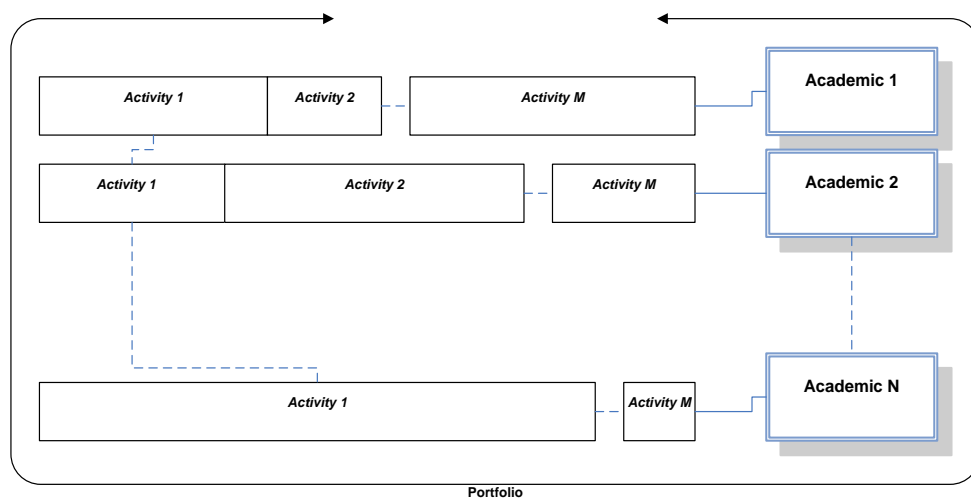


Figure 17: University portfolio management

The other feature of this set of strategies is to recognise a knowledge continuum – this leader is not alone in acknowledging and applying this. That is, the role of research ‘translation’ is an important one. It is not uncommon for key research outcomes to arise from the translation of fundamental research to applied research – they are not strictly mutually exclusive. These potential translated research outcomes are taken into account and a representation appears below in Figure 18.

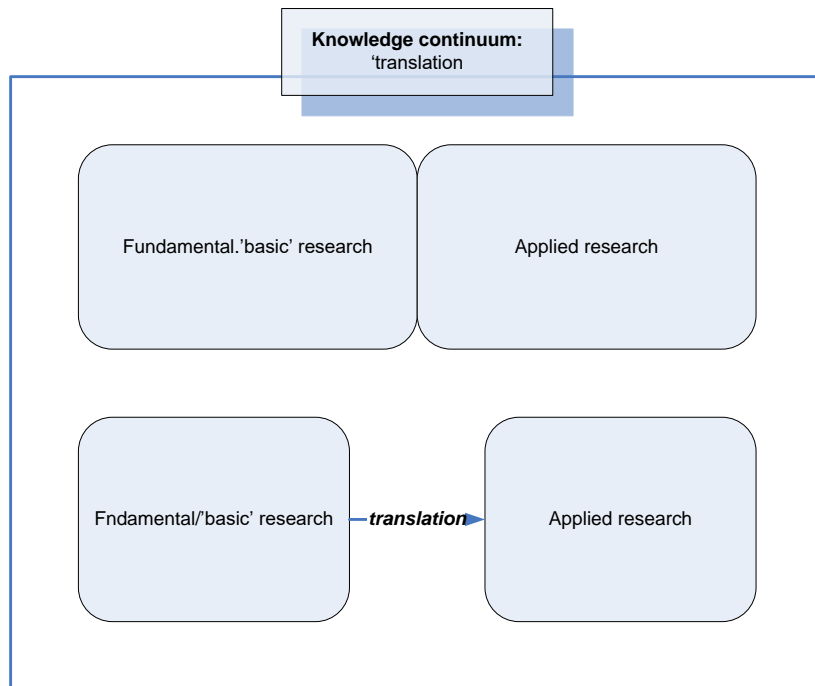


Figure 18: Research 'translation'

4.9.2 *Commercial-academic equilibrium*

As importantly noted by our academic leaders, ensuring the academic and financial viability of the university is not the only pairing of dependencies that require constant balancing actions to be taken. To a large extent the essential character of the university is crucial to retaining the attractiveness of the university to its commercial stakeholders and clients. In particular the university’s academic persona of ‘independence’ is crucial to many of its commercial stakeholders, partners and clients. For example, this is especially the case where an independent evaluation or assessment is sought, and the results might be used for a public purpose.

In relation to maintaining this delicate balance between commercial viability and the academic credibility of the institution or the particular unit, centre or institute, the activities form part of a dynamic process – commercial activities and academic outcomes can be diametrically opposing. For example, where the commercial activity or arrangement precludes publication, thus excluding academic publication – often the result of non-disclosure or ‘commercial-in-confidence’ conditions. At times our leaders have foregone commercial arrangements for the sake of academic publication, or the pursuit of fundamental research – noting that it is not uncommon for fundamental research to be subsidised by commercial research. Our leaders have highlighted that this is not necessarily a mere trade-off (or zero-sum gain): much of the most impactful research, or ‘paradigm’ shifts have arisen from the translation of this fundamental or basic research.

4.9.3 *Entrepreneurship – the academic unit*

In this section the research further reinforces the dynamic processes that are necessary to monitor and maintain the equilibrium amongst the diverse foundational-functional aspects of the university, including the academic-financial, commercial. These processes necessarily occur across the university organisation, but not always to the same extent or in the same manner. Leaders noted differences at different vertical, organisational levels of the university. Taking the commercial side of this equation highlights other dynamics and differences. There has been significant research and literature in relation to ‘entrepreneurship’ in the particular context of the university, so it is of considerable interest to have the perspectives of our academic leaders through their lived experiences. We learn that becoming more entrepreneurial is integral to the growing ‘business’ or business-like disposition of universities – similarly, that is the case with the drive to be more innovative. These are important responses that connect with universities aiming to adapt and adapt more quickly, which is the important focus of Sporn’s (2001, 1999 & 1995) and other’s research about universities as adaptive organisations. There are synergies between that research and these lived experiences – the catalysts for change and many of the reactions.

Our leaders have taken, as you would expect, a very practical approach to entrepreneurship, absent of grand strategies and abstract language – with a focus on operationalising their ideas and plans. Their examples are very specific, and characterised by:

- Specific entrepreneurial actions being planned and operated at a readily manageable organisational-level of the university: faculty or academic division, comprising schools, centres, institutes
- An organisational-level that is prepared to take and manage risk – that is, not risk averse
- Sufficient level of management authority to be able to balance entrepreneurial activities with other activities and to allocate risk and reward,
- Authority to execute and fund specific initiatives with a relative level of autonomy. This includes, for example, internationalisation initiatives.

In fact our leaders assert that actual entrepreneurial activity is less likely to occur the further one moves up the organisational structure, there is less affinity for taking risk (even managed risk) and leaders at those levels are typically too remote from the interface of the university that implements things. This has clear parallels with academic entrepreneurship and commercialisation in its many forms in terms of the sense of where these initiatives and activities most effectively and frequently occur.

4.9.4 Governance and the Enterprise

The other important model that is sometimes dismissed as mere administration or bureaucracy is the governance of the university. This can form an important element of enabling the university to balance the foundational and the functional activities of the university, or otherwise described as the academic from the operational, business or ‘transactional’, respectively – these are distinct but connected spheres of the university. This has also been described as transformational and transactional, as equating to academic and operational, business. Critically each at the same time operating with a form of autonomous judgement, especially this has been highlighted as critical to academic decision-making.

This has been earlier discussed in detail and an example is graphically described in the Figure 19 below.

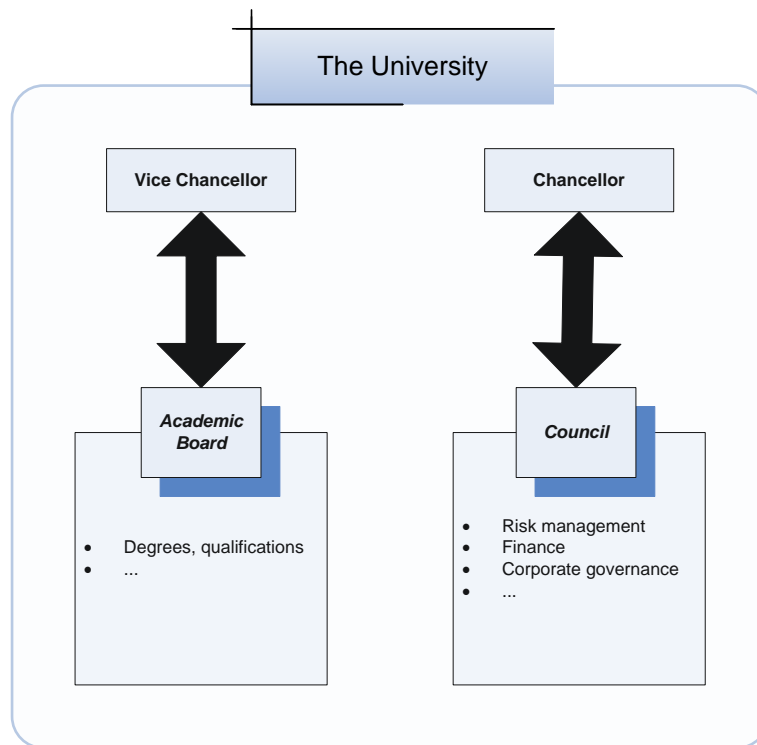


Figure 19: University governance: academic-operational/transactional

4.9.5 *Internal subsidisation – cross subsidies*

The internal cross-subsidisation model (which could be argued comprises a number of subsidisation models) that is prevalent amongst universities, and described by our leaders underpins the effectiveness of many of the responses and reactions by universities in adapting to change. This model is crucial to the actions taken by universities to balance the academic-‘business’ drivers of the university, balancing the profitable and less profitable activities, high margin and low margin activities, resourcing aspects of the university that are typically not directly funded. This involves the transfer of funds and resources from one activity or source to another. This takes many forms and occurs across a range of university dimensions: some organisational between organisational units and others between activities, such as from teaching to research, or between teaching or between research activities (e.g. applied to ‘basic’, international teaching to domestic), high fee margin faculties, divisions and schools to

those that generate lower margins or are high cost. Without these transfers of funds and resources it would not be possible for the university to exist as a university in nature and character, as described in this research as its foundations. The opposite of this model would be for only those aspects and activities of the university to be funded that are fully self-funding, always generating more revenue than they cost. Figure 20 below sets out an example of a high-level representation of this internal cross-subsidisation model, indicating diversified sources of income/revenue and their application flowing to a range of areas (without the source of revenue necessarily being linked to the receiving area of the funds).

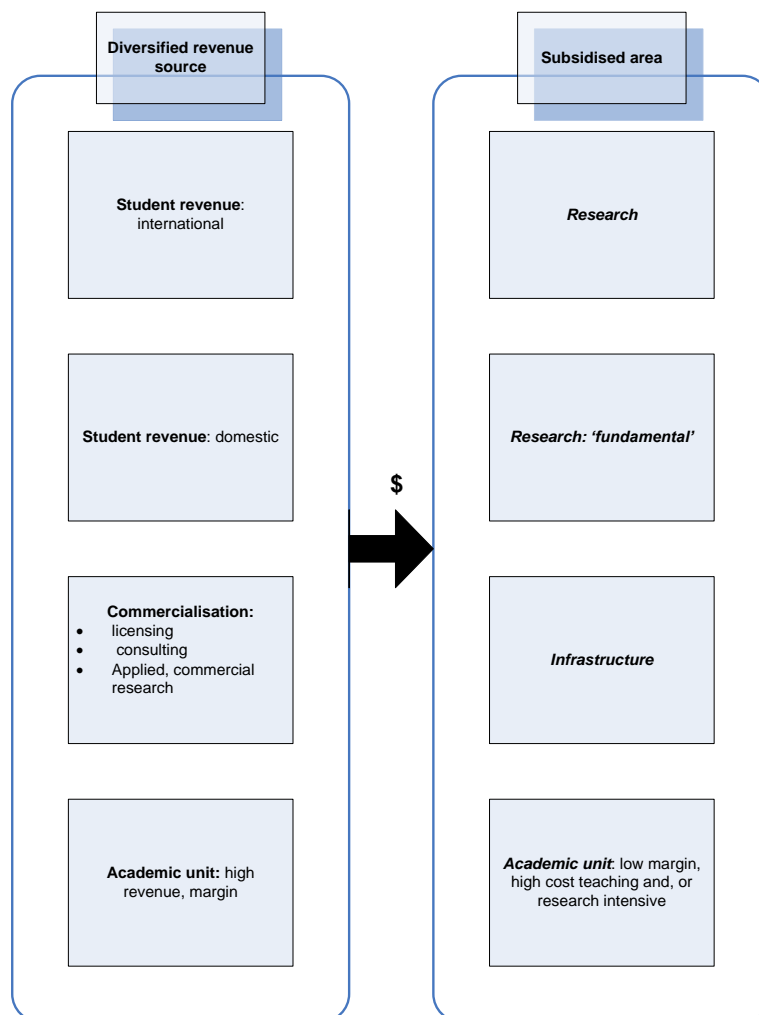


Figure 20: Example: university cross-subsidisation model

4.10 Summary

Universities are indeed complex organisations, built on many traditions, being shaped by the drivers and forces that comprise their environment, often including a formal higher education system. Such systems profoundly affect the shape and 'behaviours' of universities. While it is often debated in the research literature, our academic leaders, the subjects of this research, are clear about the elements comprising the university. Amongst our leaders, there is scope for debate concerning the definitions associated with those foundational elements and the extent to which they are a day-to-day focal point, or have ceased to be absolute. Amongst them, 'knowledge' remains the core of the university.

As for the drivers and forces of change facing universities, whilst there are diverse views concerning the range of forces, transformational forces, in the Australian higher education context there is unanimity that government policy (national policy) has been the key force behind the most of the responses and reactions by universities, whether directly or indirectly. This has been the case whether the result of major policy reviews or as part of the regular, annual (including budgetary) or electoral cycle of policy setting. A conspicuous example of this has been government policy relating to university funding and resources, and the responses of universities to therefore diversify their sources of revenue – leading to the pursuit of 'internationalisation', increasing international student enrolments, or the pursuit of consultancy research on a commercial basis, to bolster government funding for research. There are of course other drivers and forces of change but many derive from this major driver, or are of many degrees less significant.

It is an ongoing challenge to attempt to hold to the ideals, objects of the university in its character, to its foundations, and sustain the organisation, maintaining financial viability. This is only possible through a model of internal cross-subsidies, often complex cross-subsidies that are frequently not explicit or opaque at best – but absolutely necessary, essential! Figure 21 below is indicative of this complexity, pointing to the range of drivers of change, the forces, and the responses and reactions to them, with the

relationships between them also being complex. The relationships sometimes being linear, and on other occasions, for example, a core driver resulting in more than one responsive action by the university, or for forces to comprise more than one driver (for example, government policy is often a complex driver of change with many facets).

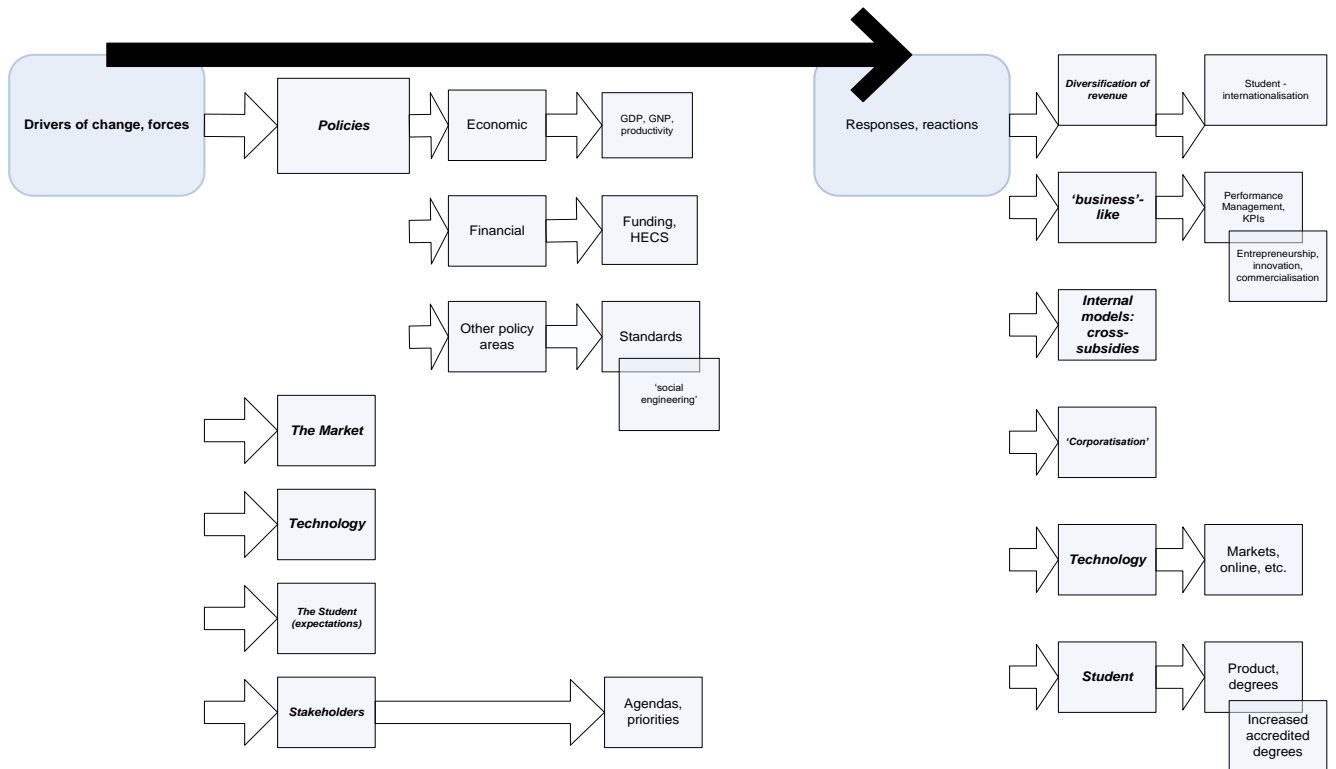


Figure 21: A 'map': drivers of change (forces) and enabling responses, reactions

This research is motivated by a desire to understand through the lived experiences of those who have day-to-day experiences of the university the dimensions and aspects that define and have shaped the university, as a distinct and unique institution – this is through the lens of academic leaders. The interest of the researcher is driven by his experiences as a university stakeholder with diverse stakeholder experiences: as a chair and member of a number of university Industry Advisory Boards, professional managerial university staff member (including academic registrar, faculty general manager, and division manager), adjunct academic (in the fields of law, information technology and marketing), corporate adviser to universities (including corporate legal counsel), and as an executive general manager (of a multi-national corporation) responsible for corporate-university programs (including MBA articulations and commercialisation scholarships), and a director of a university spin-off business. All of these engagements with universities have piqued this researcher's interests in universities – an enthusiasm to explore and develop an understanding of the nature of the university and its particular form of complexity, the internal and external perspectives of adaptation in reacting to the contemporary forces of change, and the role of the university in society and across a growing range of communities of interest – is the university an ivory tower or critical knowledge organisation to society and the economy? In responding to a range of these broader contextual questions, this research seeks to identify any connections and inter-dependencies between these aspects of the university, which we will later describe in terms of elements, attributes drivers or forces, and responses and reactions to change, as we more explicitly explore the specific research questions. This research represents an opportunity to see the university in a joined-up manner, as the organisation, its members, interest holders, in a societal context, in the context of a higher education system and global market.

5.1 Overview of the research

This research is exploratory in nature and amongst its aims seeks to identify the breadth of the themes and patterns that describe the richness and complexity of the contemporary university, the drivers and forces that have shaped and framed the university, and the specific responses and reactions to those drivers. It is intended not to provide a narrative that might be a mere abstraction, but importantly, draw together a coherent perspective through the lived experiences of a particular group of key stakeholders – those members of the university who have a substantial and significant understanding of the university and these aspects, and have a responsibility and key roles in influencing the future of the university – the university leaders. It is through the lens of these members of the university that this research explores, through a qualitative analysis, the elements comprising the foundations of the ‘modern’ or contemporary university, the forces of change affecting them (even transforming them), and the specific and diverse reactions, responses to those forces. There are underlying questions that have surfaced from the explicit research questions. These incidental questions have surfaced further important matters: the tensions that have arisen between these elements and aspects of the university (the foundations, change forces and reactions), the strategies and models applied as day-to-day practices by our university leaders in recognising these tensions, and when and where do these aspects of the university clash or collide to affect one another – when might a reaction or response to change affect the foundations of the university (both for the good and otherwise)? This research explores the many dimensions of the university - what could be termed the macro and micro dimensions of the university. On the one hand, the foundations, forces and change drivers (transformational forces) and reactions or responses to change (or the actions to enable change), and the specific actions, strategies and underlying models that that represent the day-to-day actions of the academic leaders (and others) to address the extant tensions that exist across these dimensions and aspects of the university.

A review of the literature sources of many of the relevant fields of research to this exploration brought to light the complexity of the university and the questions one might ask concerning the university, its past, present and future. It also revealed disconnectedness in considering how these diverse fields might represent a whole picture of the university in a dynamic environment, one of constant change, and being driven to constantly change. Is the university appropriately considered as a static organisation, comprising fixed parts, a discrete entity or a continuum (comprising many elements that to varying degrees comprise the university)? Are all of the forces of change equal in their impact?

The literature review of research was a rich source of debate: what are the true sources of the foundations of the university, are they (or were they ever) relevant to the modern university? – ranging from and encompassing Newman's 'Idea of a university' (and the concept of 'universal knowledge') and Humboldt's 'unity of science', through to the contemporary works of Collini (2012) bringing in, amongst other important notions, 'public good, benefit', and Connell's (2019) reimagining of the 'good university'. Much of these works and the debates centre of the university being one or other of these things. Our academic leaders do indicate a more unitary and inclusive view of the things that make a university. The drivers and forces of change distilled from the research literature were as diverse as those indicated by our academic leaders. Our academic leaders have presented a particularly practical perspective though, being specific in terms of how they engaged with these forces and where necessary, how they enabled the necessary changes and responses.

This research has been conducted as a case study of three universities, the three South Australian public universities, the University of Adelaide, Flinders University, and the University of South Australia. This approach was taken to ensure that within the scope of this research data collection would be manageable and enable a richness of data with respect to each research subject interviewee, ensuring rich narratives, from a range of institutions that are representative of the Australian higher education system (Raciti, 2010; Marginson & Considine, 2000). Through this analysis, exploring patterns and themes, across the research questions (across our university research domains of foundations,

transformational change drivers, and reactions and responses to change), we discovered that, in the view of our university leaders, the university is indeed a 'gamut' of elements and attributes, with the university comprising all of them to varying degrees, with a cornerstone of knowledge but being different from other knowledge organisations – universities comprise many layers, and across all of these research dimensions could be described as being mosaic-like. While many terms and emerging concepts have been used to describe the modern university, and its evolving forms, such as the entrepreneurial university, enterprise university, corporate university, or engaged in academic entrepreneurship, academic capitalism, or being transformed into marketing organisations (Bok, 2003), etc., to name some of the descriptors, these are adaptive responses or universities being adaptive organisations (Sporn, 2001, 1999 & 1995).

This research has in many ways enabled us to peel back the layers and constructs that are integral to the concepts that have been applied to describe various forms of the modern, or contemporary university – to bring them to the surface and start to reveal how they are connected – where these layers and constructs fit within broader university frameworks (as discussed, a foundational-functional framework). In a very active sense this research reveals the 'model's that draw together many of the day-to-day strategies used by our academic leaders, enabling their responses to the forces of change, and seeking to balance and recognising a necessary 'equilibrium' between the foundational and functional (or 'transactional' as noted by academic leaders), or academic and transactional or 'business', aspects of the university.

5.2 The evolving research questions

Initially this exploration seemed to be somewhat linear in nature as if following the research questions in the direct sequence set out below. While each of these questions continues to underpin this research, a more complex set of issues evolved and unfolded as the rich research data was analysed and interpreted. Layers and interdependencies become evident – the relationships amongst the

answers have been shown to also be complex: one-to-one as one might expect, and many-to-one, one-to-many, and indicators of many –to-many connectedness, and feedback loops (positive and negative). The broader object and purpose of this research explores the connections and loops or feedback loops between the answers to the research questions, rather than as siloed answers to each of the individual research questions – drawing out an understanding of the ‘interaction of the components’ (Sterman, 2000) that define and describe the university and the drivers of and reactions to those change drivers. This interaction could be considered as a fourth research question, resulting from this research exploration – an emergent question. This emergence is more appropriately discussed in detail in section 5.3 below concerning the knowledge contribution arising from this research. For our reference the initial research questions, setting the original scope for this research, are set out below.

- RQ1: What are the characteristics or elements of the university that define the university, as unique from other institutions or organisations?
- RQ2: What have been the critical or transforming influences or drivers that have caused significant change to universities (or the ways that universities behave) (“transforming drivers”)?
- RQ3: How have universities responded to these drivers or how have they changed?

In summary this exploratory research found that the answers to each research question was not simply in the form of “either, or” responses. There is significant complexity – answers appear in layers and not commonly connected to one another – layers suggested a hierarchy of importance or differing levels of impact on the university.

RQ1: What are the characteristics or elements of the university that define the university, as unique from other institutions or organisations?

The core of the university, in all its forms, is knowledge. Our leaders and research subjects draw a clear distinction between knowledge and mere information or data. The corpus of the knowledge itself and what we refer to collectively as knowledge actions, such as development, dissemination, the act of producing knowledge are all elemental to the university – this includes other forms of knowledge as embodied in scholarship and educating.

Other elements of the university as described by our academic leaders, are freedom of speech and independence (taking many forms), ethical behaviour, and while not being exclusively not-for-profit organisations universities in the Australian context are typically not-for-profit (while retaining the ability to make profits or surpluses as an important component of sustaining viability, all of academic and functional or operational, transactional viability). Academic and ‘transactional’ viability are connected to one another – this will become clearer in our discussion in relation to the knowledge contribution concerning ‘models’.

Encompassing the university and the elements noted above and elsewhere is society and community. The university is uniquely and distinctively framed in relation to society and the community, having an object of public good or benefit. The university is distinguished from other knowledge organisations by this object together with comprising not one or other of the above elements, but all of them, the full ‘gamut’ of them.

RQ2: What have been the critical or transforming influences or drivers that have caused significant change to universities (or the ways that universities behave) (“transforming drivers”)?

This exploratory research is on the basis of case studies in Australia and the Australian higher education system. This system does influence the elements, the foundations of the university – the

system itself of course comprises legislation, regulations, and has arisen out of government policy, often developed from major government reviews. These policies affect every dimension of the university. Notably, our academic leaders identify government policy as being the most profound driver and force of change concerning them. There are many areas of government policy – however two areas have been identified in terms of significant impact: funding and structural reforms (such as those concerning ‘standards’ and institutional amalgamations).

Funding is the most critical driver of change (in relation to Australian universities) which are particularly dependent on national government funding – to some extent this is borne out by areas of the research literature, concerning for example, entrepreneurial universities (and diversification of income sources) and the ‘adaptive’ actions of universities. Policies concerning funding affect all of the resources of universities (including teaching, research and infrastructure), and as a key driver of many of the university’s responses and reactions. There is unanimity amongst our research leaders concerning this.

The application of policies concerning ‘standards’ combined with institutional amalgamations, our research leaders contend that these have led to universities tending to be homogenous, and restricting diversity. The policy ‘standards’ (or threshold standards) are far reaching: covering Student Participation and Attainment; Learning Environment; Teaching; Research and Research Training; Institutional Quality Assurance; Governance and Accountability; and Representation, Information and Information Management including information for students. This raises the further issue of whether Australian universities can differentiate themselves from one another – there appears to be a proposition that indicates that universities can be both homogenous and to varying degrees differentiated. While comprising all of the same elements (thus making them universities), universities can be, for example, research intensive (and still teach), or teaching intensive (and conduct research) – there are varying degrees of fundamental and applied research being conducted. Having said that, the important funding policy driver not only affects the amount of funding, but the conditions under which funding is granted: for example, specific fields of education in relation to teaching; research perceived

to be of greater 'impact', etc. There are other change drivers but of lesser impact – a further observation and interpretation indicates that these drivers can be described as having layers, with the drivers in the 'top' layer having the most impact on universities, or are connected, linked to other drivers, one driver being enabled by a subsequent driver (as a response in itself) (e.g. $D1 \rightarrow D2 \rightarrow D3$).

These drivers of change and forces do not operate in isolation. As identified through our analysis and discussion of the data, these forces (and particularly the university responses to them) can and do impinge on the foundations of the university.

RQ3: How have universities responded to these drivers or how have they changed?

The reactions and responses to the above described forces (and others) do result in many causal relationships across the dimensions of the university. For example, an individual force may and does result in more than one reaction or response (as a one to many relationship), certain responses do affect the foundations of the university, crossing the dimensions of the university (the foundations, drivers, reactions/responses under this research).

Consistent with the key driver of government policy as it relates to funding (and resources), the most pervasive response or reaction to this far reaching set of policies has been for universities to diversify their sources of income – resulting in many flow-on responses and actions (e.g. $R1 \rightarrow R2 \dots \rightarrow Rn$). In particular, diversification of university incomes sources has manifested in a number of ways: pursuing growth in international student enrolments, research consultancy activity, university programs, degrees developed as products (with a market focus, industry focus), shifts towards applied research (from fundamental research), commercialisation – incidental to these responses has been a broadening of the range of university stakeholders, in growing these activities. To support this growth in revenue generating activities, universities have also responded by becoming increasingly business-like or in fact regarding themselves as businesses (encompassing being entrepreneurial in outlook, and pursuing innovation with this end in consideration). The Figure 21 below is repeated to summarise and highlight

this. It sets out an indication of the relationships between the change drivers and their associated enabling responses, and amongst drivers, and the various responses.

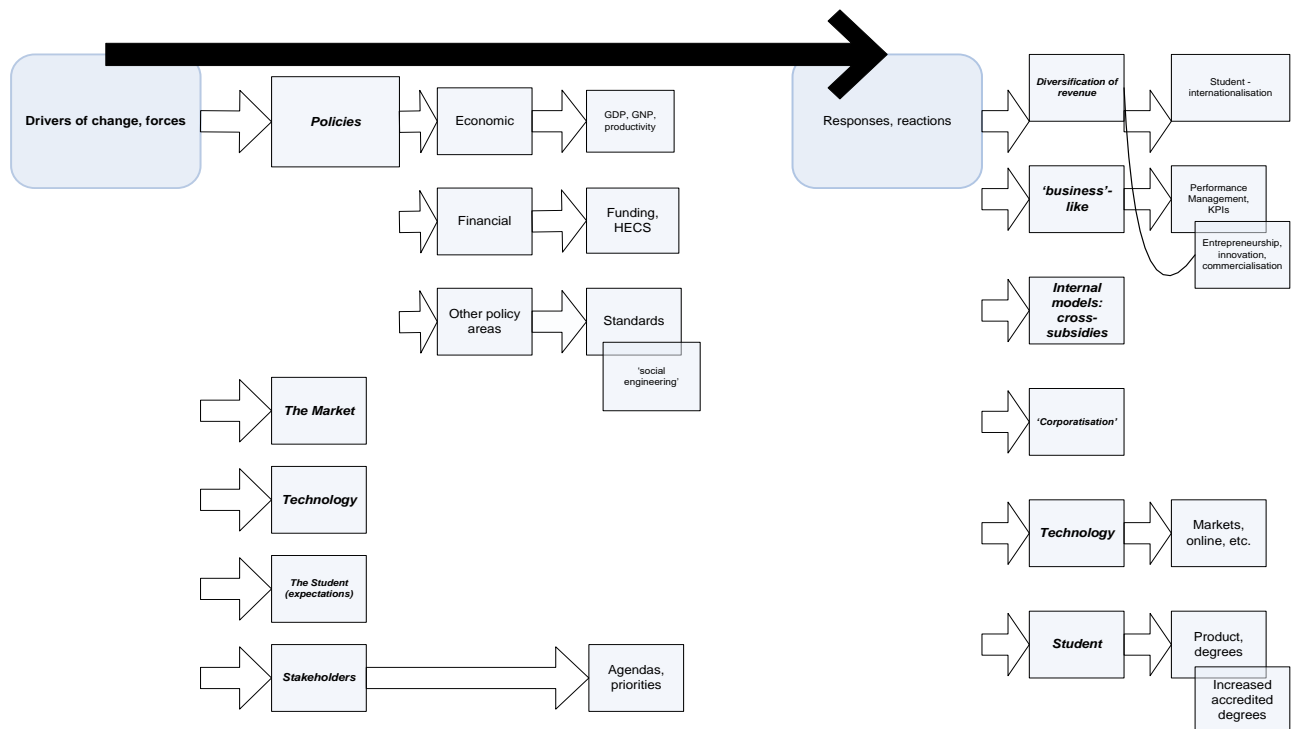


Figure 21: A 'map': drivers of change (forces) and enabling responses, reactions

5.3 Knowledge contribution

There are models (underpinned by particular strategies) that are used by academic leaders to continuously strive to achieve balance between the academic and 'business' (or business-like) dimensions of the university. These are typically informal and have been developed over time, often as a set of practices of individual academic leaders, without them forming part of an explicit university system (of policies or procedures). Identifying these models and making them explicit is significant. Furthermore they are clearly underpinned by the day-to-day experiences of actual university leaders. Many of these models take different forms with a range of nuances depending on the organisational level and leadership-level where they are called upon.

There are a number of important 'loops' or even feedback loops between the elements and attributes of the university that are critical to understanding the distinctiveness of the university and the threats and challenges to that distinctiveness, or as has been described as a threat to its 'values'. This research identifies a number of those loops, further providing support for where the 'tensions' are most acute.

Within the scope of this research and likely more generally, there is much 'noise' about what makes a university, what drives a university. The research literature enjoins in many debates, often underpinned by principles of narrow interpretation, perhaps even, one of form over substance in some instances.

The university leaders are quite clear in terms of 'knowledge' being core to the university (albeit perhaps across many forms), and the key force (at least across this research's component case studies, and higher education system) is funding and the breadth of funding related policies. Funding drives many of the university's 'behaviours' or the behaviours of its members and the actions, responses of the institutions. Many such actions can be connected to that force – as one-to-many relationships. This can be represented as a matrix of foundational attributes, key forces and a multitude of actions, responses, some of them 'looping' back or feeding back to the university foundations.

Examples that emerged include drivers (through funding and funding conditions) to prioritise applied research with a high 'impact' (thus eroding the breadth of university research and 'knowledge'); increasing commercialisation (but commercialisation typically includes forms of dissemination of knowledge, albeit on a commercial-basis, but could be argued as being supportive of the university foundation of knowledge dissemination), and further, funding may be provided with conditions that undermine the independence of the university. (This researcher has experience in this aspect, having been asked to provide advice on the legal remedies that might be available to prevent the publication of certain research that might have been detrimental to a commercial partner.) Figure 22 below shows the emergence of feedback loops, interactions between the university dimensions according to the research questions framework – foundations, drivers and response. Knowledge dissemination (even on a commercial basis) could be regarded as contributing to the knowledge dissemination foundation goal

of the university, whereas government funding conditions or industry agendas that significantly dilute the balance of fundamental and applied research might affect the 'knowledge' foundations of the university in a negative manner. Further, for example, Lynch and Ivancheva (2015) point to the effects of commercialisation on the ethical settings of the university and independence.

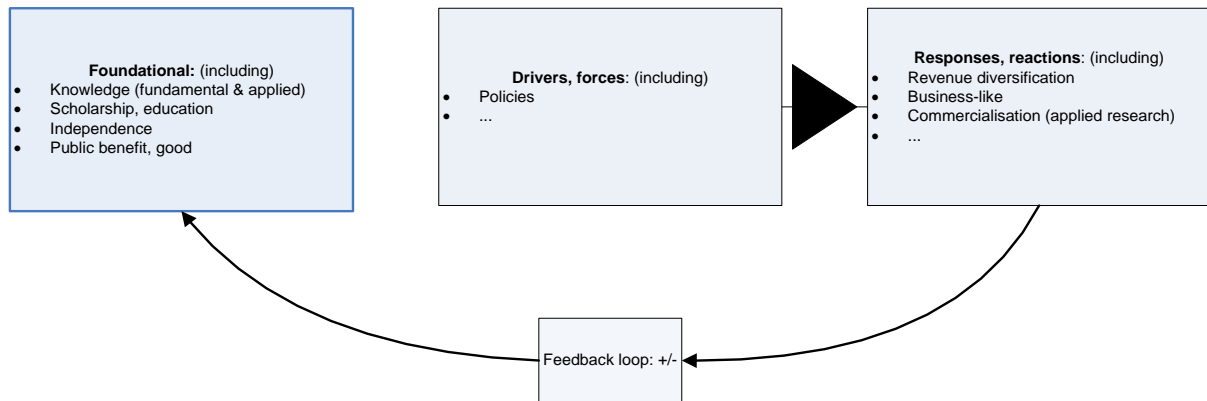


Figure 22: Feedback loops between the research question domains

The implications of this research relate to the 'practice' of the university, through making the underlying models (especially those that do not exist formally) and strategies explicit, 'surfacing' them.

Through the lens of this researcher and his lived experiences of the university, he has been able to interpret and synthesise the lived experiences of the subject university leaders to draw together their collective knowledge into coherent models that form the basis of a number of important strategic and operational practices, practices that inform their decision-making. These decisions enable them to 'balance' the academic and 'business' dimensions of the modern university, dynamic dimensions that represent a genuine tension.

In understanding the development of these models and practices it has been important to also understand the connection between the research literature sources and the manner in which our university leaders have directly and indirectly moderated many of those perspectives into a reality that is workable in the real world of the modern university, whether in consideration of the university as

Newman's Idea of a University, the Humboldtian University, or other incarnations of the university, and the forces that shape and re-form them.

We are presented with a number of indicative models, showing a connectedness between the elements, attributes and dimensions of the university, and mechanisms for balancing the academic and 'business' tensions of the university. These models, though not necessarily mutually exclusive from one another can be described as the following forms or types. The responses and reactions to the core change drivers would not operate effectively or coherently without these models and their underlying strategies being in place: cross-subsidy, multi-layer; knowledge translation; portfolio balancing; academic governance, and mission-enabling models.

The different forms of university identified through the literature (including the entrepreneurial university, enterprise university, corporate university (in some forms), engaging in 'academic entrepreneurship') are manifestations of these change drivers, these transformational forces, and could collectively be regarded as describing the enabling actions of universities that are necessary to respond to these changes, adapting. It can be contended that there is both a 'tipping point' in relation to the foundations of the university whereupon the institution ceases to be a university, and that within the breadth of those foundations there is a continuum of activities constituting the university – with the levels of those activities varying between different universities. There will continue to be pressures on universities to shift towards those foundational boundaries – there is evidence of this even in the nature of the research literature – global management consulting firms being contracted to envision what the future university might look like, wholly industry-facing universities; the user-pay degree by segmenting the private and public good associated with a degree.

5.4 Limitations

The outcomes of this research are limited in the extent to which they might be generalised for a number of reasons. At the same time these constraints also form a number of research strengths. These bases

include the exploratory nature of this research, and its boundaries comprise case studies of the three South Australian public universities, with interviews of 17 university leaders.

First, the exploratory nature of this research does lend itself to identifying the complex connections that were necessary to reveal the models discussed above and elsewhere throughout this research. The universities that have been selected represent a significant cross-section of the national higher education system, realising the benefits of being representative and a relatively efficient approach to data collection and sampling. The university leaders are organisationally representative across the leadership levels of Australian universities, and the academic and operational units that comprise them.

These research parameters are a suitable platform on which to build future research in evaluating and further generalising these models.

5.5 Future research directions

Future research would build on this data in evaluating and generalising these models. Even though qualitative and exploratory, this research is scalable in terms of seeking the further perspectives of university leaders but in relation to these models in particular, and introducing other types of data – to test, or even ‘simulate’ these models.

Additional interviews would cover all levels of the university academic organisation, and academic unit types, enhancing the robustness and level of detail of each of the indicated models. This future research would be likely to identify other models and build upon the already indicated models – by expanding the parameters to include for example, other identified drivers and responses, and the relationships between them.

Further research would test the extent to which these models might apply to universities in other higher education systems. A number of university leaders provided contexts for North America and Western

Europe, which is consistent with a significant body of the source research literature. This is particularly relevant in a broader context of the 'internationalisation' of higher education.

This research could be further developed by taking into account the perspectives of other stakeholders: importantly students (e.g. international and domestic); research partners; government representatives.

That is, broadening the perspectives, through the 'lived experiences' across the range of university stakeholders. This would broaden the types of stakeholder experiences not unlike those of the researcher, and was the catalyst for his interest in this research.)

Additional research could usefully take into account in more detail the role of competition, including competition from non-university entities, or other forms of university (such as the corporate university, which is alluded to in our review of research literature). For example, this may be so when industry stakeholders feel that universities are no longer able to meet the needs of industry (for skilling or research). There may be substitute services to replace the educational offerings of universities. How will the market evolve? What of the international market, and offshore competition in the Australian market, or further impinging on Australian university international markets, such as taking advantage of any tensions with China to penetrate that market? The Ernst & Young (2012) paper foreshadows a wholly industry-facing university.

POSTSCRIPT

At the time of the writing of this thesis the COVID-19 pandemic has taken hold of communities across the world with profound effect. The universities have not been immune from this. This research including the data collection concluded prior to the emergence of this pandemic. If anything the lessons learned from this research are further underscored by the effects of the pandemic: the tensions within and across universities, and their constant actions in responding to and reacting to these forces of change – H1N1 influenza and ‘bird flu’ were already on the horizon many years ago and universities as they do, had meetings about it. Perhaps with the benefit of some hindsight the researcher notes that our academic leaders might have mentioned other matters of importance affecting (or potentially affecting) universities, such as events within the ambit of disasters (with pandemics being amongst these), political risk (domestically in terms of the extent to which universities can affect government policy, or their limited influence on those policies), and all of the implications concerning internationalization (including not only an over reliance on students from China, but the shifting fortunes associated with a decline in the relationship between the Chinese and Australian governments). Having said that, it was the intention of this research to understand those matters that were foremost in the minds and concerns of those academic leaders, within the limitations of having only one interview with each leader.

To adapt universities have done many things – diversification of their revenue sources (which has been a focal point), ever shifting ‘business’ practices, reframing degree offerings, broadening stakeholder engagement (especially in relation to research) and responding to the associated agendas, etc. – constantly being called upon by their communities of interest (internal and external) to retain the character of the university and be more ‘entrepreneurial’ and business-like (or even be a business at times), be an ‘enterprise’. These could be described as tensions or even emerging fault lines.

The gravity of this pandemic, if anything, reinforced the evidence of these tensions and fault lines with respect to universities. They are being called upon to further adapt, broaden that adaptation and hasten their pace of change. The need to diversify reaches beyond the diversification of revenue sources (which has become even more critical under the weight of the pandemic and the heightened risk to their international student enrolments and revenue), diversification of their 'products', and their processes (which in the view of many stakeholders) imbue universities with a certain sluggishness, inertia and unnecessary bureaucracy. The strategies that have already been identified through this research and with the academic leaders, who have spoken so candidly to this researcher, will become increasingly important, together with more fundamental reflection on the part of universities through even broader perspectives. This will have to go beyond reducing the number of credit cards across a university and slashing the number of casual staff, and rounds of 'redundancies'. A deep consideration of the tensions and fault lines, many of which have already been identified and explored through this research, must form the basis of these reflections – universities are under threat. This is a question that has already been posed by the academic leaders in this research. There are many academic leaders who have a clear understanding of these issues and respond to many of them daily (as indicated by this research) but can universities rise to the challenge of making effective institutional response?

Is there an endpoint to the development of the university, perhaps an endpoint that has resulted from culmination of the 'forces' (of change) described throughout this research? Are we in fact witnessing a situation that parallels and is a form of expansion of Fukuyama's (1989) original proposition, with an end to the evolution of certain ideologies and the triumph of political and *economic liberalism*? – which includes the universalization of Western liberal democracy. Fukuyama's work is entitled 'The End of History?'

In particular has any notion of the idea of a university become wholly replaced or subservient to economic liberalism? Have we also reached an endpoint in the ideological evolution of the university?

Through this research and the insights of the university leaders, their lived experiences, there are indeed threats and cause for optimism at the same time. The forces for change are significant and unrelenting. The experiences and qualities brought by these leaders, notwithstanding the structural rigidity of the university institution from time to time, indicate an important ability to adapt, balance, and innovate new paradigms and models – many of which were revealed through this research. I note that this researcher does possess an empathetic view towards university-academic leaders, particularly those who choose to remain connected to the mission and object of the university, remaining connected to scholarship, education, knowledge and research, an empathy that has only been reinforced by this research. Counterintuitively perhaps, the survival of the ‘university’ will largely depend on the business skills of these university leaders, to ensure the balance and equilibrium described through this research, coupled with continuing to make good academic judgements – being vigilant to the forces of change and responding to them always with the university mission in consideration. The university leaders in this research have certainly embraced the history and values, foundations of the university, even where they do not possess direct knowledge of that history - it is integral to the values and motivations that they bring to the university (and often discussed in their interviews). The history of the university will continue to evolve as long university leaders continue to embody these qualities and values (even in the face of ‘shocks’ such the Covid-19 pandemic).

- Aldrich, H. & Zimmer, C. (1986). *Entrepreneurship through social networks*. In D.L. Sexton and R.W. Smiler, eds. *The Art and Science of Entrepreneurship*. Cambridge, MA: Ballinger, p. 3-23
- (Ed.) Altbach, P.G., Umakoshi, T. (2004) *Asian Universities: Historical Perspectives and Contemporary Challenges*. Johns Hopkins University Press
- Altbach, P G 1982, *Higher education in the third world: Themes and variations*, Maruzen Asia, Singapore
- Ash, M. G. Bachelor of What, Master of Whom? The Humboldt Myth and Historical Transformations of Higher Education in German-Speaking Europe and the US. *European Journal of Education, Vol 41, No. 2, 2006*.
- Australian Government. 2020. Model Code [academic freedom]:
<https://www.education.gov.au/independent-review-freedom-speech-australian-higher-education-providers>
- Australian Government. 2020. Student enrolments of South Australian universities, 2015-2019. Source: Department of Education, Skills and Employment [uCube - Higher Education Statistics, 16 Dec. 2020, 10.50 am]
- Australian Government. 2019. International Student Income, Australian public universities. 2019 Source: Department of Education, Skills and Employment (Australia)
- Australian Government. 2015. Department of Education and Training, Higher Education in Australia, *A review of reviews from Dawkins to today, Higher Education Funding in Australia*. Department of Education and Training, Canberra 2015 ISBN 978-1-76028-432-9 [DOCX]
- Australian Government. (1987) Dept. of Employment, Education and Training and Dawkins, J., 1987. *Higher education: A policy discussion paper*. Department of Employment, Education and Training.
- Bachler, C.J. (1997) "Corporate Universities Are Catching On" *Workforce*, 7766 (6), 96-7.
- Bara, F.E., 2015. Wilhelm von Humboldt, Cardinal John Henry Newman, and José Ortega y Gasset: Some thoughts on character education for today's university. *Journal of Character Education*, 11(1), p.1.
- Binks, M., & Vale, P. 1990. *Entrepreneurship and Economic Change*. McGraw-Hill Book Company)
- Birley, S., 1985. The role of networks in the entrepreneurial process. *Journal of business venturing*, 1(1), pp.107-117.

- Bok, D, 2003. *Universities in the Marketplace. The Commercialization of Higher Education*. Princeton University Press.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Bradshaw, D. (2000) "Inside Track", *FT.com Global Archives*, 9th October.
- Braun, V., Clarke, V. & Weate, P. (2016). *Using thematic analysis in sport and exercise research*. In B. Smith & A. C. Sparkes (Eds.), *Routledge handbook of qualitative research in sport and exercise* (pp. 191-205). London: Routledge.
- Braun, V & Clarke, V. (2012) *Thematic Analysis*. In H. Cooper, P M Camic, D L Long, A T Panter, D Rindskopf, & K J Sher (Eds.) *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57-71). Washington, DC: American Psychological Association.
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101. ISSN 1478-0887 Available from: <http://eprints.uwe.ac.uk/11735>
- Brentano, F. (1973) *Psychology from and Empirical Standpoint*. Routledge and Kegan Paul, London.
- Brewer, J. and Hunter, A., 2006. *Foundations of multimethod research: Synthesizing styles*. Sage, Thousand Oaks, CA
- Carson, D., Gilmore, A., & Gronhaug, K. (2001). *Qualitative Marketing Research*. Sage, Thousand Oaks, CA
- Carter, S. M. & Little, M. (2007) 'Justifying Knowledge, Justifying Method, Taking Action: Epistemologies, Methodologies and Methods in Qualitative Research', *Qualitative Health Research*, Volume 17, Number 10 December 2007, pp. 1316-1328.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods*. (1st ed.) US & Australia: John Wiley & Sons Ltd.
- Clark, B. R. (2003) 'Sustaining change in universities: Continuities in case studies and concepts', *Tertiary Education and Management*, 9:2, 99-116.
- Clark, B.R., 1998. *Creating entrepreneurial universities: organizational pathways of transformation. Issues in Higher Education*. Elsevier Science Regional Sales, 665 Avenue of the Americas, New York, NY 10010

- Clark, B.R., 1998. The entrepreneurial university: Demand and response. *Tertiary Education and management*, 4(1), pp.5-16.
- Coady, C.A.J., 2000. *Why universities matter: A conversation about values, means and directions*. Allen & Unwin.
- Coaldrake, P. and Stedman, L., 2016. *Raising the stakes: Gambling with the future of universities*. Univ. of Queensland Press.
- Coaldrake, P. and Stedman, L., 1999. *Academic work in the twenty-first century*. Canberra, Higher Education Division, Training and Youth Affairs.
- Coaldrake, P. and Stedman, L.R., 1998. *On the brink: Australia's universities confronting their future*. University of Queensland Press, St Lucia, Australia.
- Collini, S. 2012. *What Are Universities For?* Penguin Books, London
- Collins, F.L. and Park, G.S., 2016. Ranking and the multiplication of reputation: reflections from the frontier of globalizing higher education. *Higher Education*, 72(1), pp.115-129.
- Connell, R. 2019. *The Good University, What universities actually do and why it's time for radical change*. Monash University Publishing, Victoria, Australia
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and Conducting mixed method research*. (2nd ed.). Thousand Oaks, SA: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. (2nd ed.). Thousand Oaks, CA: Sage.
- Crotty, M., 1998. *The Foundations of Social Research, Meaning and perspective in the research process*. Allen & Unwin, London.
- Deloitte Access Economics, 2015, *The economic contributions of Australia's research universities – the UNSW example*, Deloitte Access Economics, ACT Australia
- Deloitte Access Economics, 2011, '*Broader implications from a downturn in international students*'
- Denzin, N. K., & Lincoln, Y. S. (2003). *The landscape of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Dore, R. P. (1976) *The diploma disease*. George Allen & Unwin, London

- Dowsett, D. (2020) Global university rankings and strategic planning a case study of Australian institutional performance, *Journal of Higher Education Policy and Management*, DOI: 10.1080/1360080X.2019.1701853.
- Duke, C. (2002) *'Managing the Learning University' in Managing Academic Staff in Changing University Systems-International Trends and Comparisons*. (Ed. Farnham, David, The Society for Research into Higher Education & Open University Press)
- Edwards, A., & Skinners, J. (2009). Research Paradigms in Qualitative Sports Research Management. In A. E. J. Skinners (Ed.), *Qualitative Research in Sports Management* (1st ed., p. 439). UK & USA: Elsevier Ltd.
- Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of management review*, 14(4), pp.532-550.
- El-Tannir, A. (2002) The corporate university for continuous learning, training and development. *Education & Training*: 2002; 44, 2/3. p. 76.
- Ernst & Young, 2012. University of the future – A thousand year old industry on the cusp of profound change. <http://www.bu.edu/edtechcouncil/files/2012/10/Ernst-Young-Higher-University-of-the-Future-2012.pdf>: 5 March, 2021:13:42
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016) Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, Vol. 5, No. 1, 2016, pp. 1-4. DOI: 10.11648/j.tas.20160501.11
- Evans, B. C., Coon, D. W. & Ume, E. (2011) Use of Theoretical Frameworks as a Pragmatic Guide for Mixed Methods Studies: A Methodological Necessity? *Journal of Mixed Methods Research*, 5(4) 276–292, 2011 DOI: 10.1177/1558689811412972
- Ewart, H, 3 April 2007, *International students a lucrative market in Australian tertiary institutions* (Australian Broadcasting Corporation, The 7.30 Report)
- Ezzy, D. (2002) *Qualitative Analysis, Practice and innovation*. Allen & Unwin, London.
- Favaloro, C. (2015) Marketing in the higher education sector. *Journal of Higher Education Policy and Management*, 2015 Vol. 37, No. 5, pp. 490-506.
- Fink, A. (1995) *How to Sample in Surveys*. Vol, 6. London: Sage Publications, 1995
- Forsyth, H., 2014. *A History of the Modern Australian University*. NewSouth Publishing, Sydney, Australia.

- Forsyth, H., 2015. Expanding higher education: institutional responses in Australia from the post-war era to the 1970s. *Paedagogica Historica*, 51(3), pp.365-380.
- Frith, H. & Gleeson, K. (2004). Clothing and embodiment: men managing body image appearance. *Psychology of Men & Masculinity*, 5(1), pp. 40-48.
- Fukuyama, F., 1989. *The End of History*. The National Interest, No. 16 (Summer, 1989)
- Fulton, O. (1998) 'Unity or Fragmentation, Convergence or Diversity: The Academic Profession in Comparative Perspective in the Era of Mass Higher Education' in *Universities and their Leadership* (Princeton University Press: NJ, USA. Ed. Bowen, WG and Shapiro, HT)
- Gallagher, M. (2001) *Modern University governance: 'A national perspective' in The idea of a university; Enterprise or academy*. Discussion Paper Number 39, Manning Clark House and The Australia Institute.
- Gartner, W. B., Davidsson, P., & Zahra, SA. (2006) Are You Talking to Me? *The nature of Community and Entrepreneurship Scholarship, Entrepreneurship Theory & Practice*, May 2006, p.321
- Gearing, R. E. (2004). Bracketing in research: A typology. *Qualitative Health Research*, 14, 1429-1452.
- Gladwell, M. (2006) *The tipping point: How little things can make a big difference*. Little, Brown, MA, USA.
- Glaser G. & Strauss, A. L. (1967) *The Discovery of Grounded Theory: strategies for qualitative research*. Aldine de Gruyter, New York, USA.
- Goulding, C. (2005). Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European Journal of Marketing*, Vol. 39 No. 3/4, 2005, pp. 294-308.
- Gregorie, D. A., Noel M. X., Dery, R. & Bechard, J.-P. (2006) Is There Convergence in Entrepreneurship Research? A Co-Citation Analysis of Frontiers of Entrepreneurship Research, 1981-2004. *Entrepreneurship Theory & Practice*, May, 2006, p.333.
- Guba, E. G. & Lincoln, Y. S. (1994). *Competing paradigms in qualitative research*. In N. K. Denzin & Y. S. Lincoln (Eds.) *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Harding, S. (1987). Introduction: is there a feminist method? In S. Harding (Ed.), *Feminism and methodology: Social science issues* (pp. 1-14). Bloomington: Indiana University Press, Indiana, USA.
- Henkel, M. & Kogan, M. (1999) 'Changes in Curriculum and Institutional Structures: Responses to Outside Influences in Higher Education Institutions' in *Innovation and Adaptation in Higher Education*,

The *Changing Conditions of Advanced Teaching and Learning in Europe*. (Ed. Gellert, C.) Higher Education Policy Series 22.

Henry, Gary T. *Practical Sampling*. Vol. 21. London: Sage Publications, 1990.

Hoare, S. (1999) "Have a Nice MBA", *Human Resources*, November, 74-79.

Holloway, I., & Todres, L. (2003). The status of method: flexibility, consistency and coherence. *Qualitative Research*, 3(3), pp. 345-357.

Hunter, A., & Brewer, J. (2003). Multimethod research in sociology. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioural research* (pp. 577-594). Thousand Oaks, CA: Sage.

Husserl, E. (1962), *The Crisis of European Sciences and Transcendental Phenomenology*, trans. By Carr, D., Northwestern University Press, Evanston, IL, USA.

Husserl, E., 1931. Ideas: General introduction to pure phenomenology (D. Carr, Trans.)

Hutchby, I. & Wooffitt, R. (1998). *Conversation analysis: Principles, practices and applications*. Oxford: Polity Press, New York, USA.

Jarvis, P. (2001) *Universities and Corporate Universities, The Higher Learning Industry in Global Society*. Kogan Page; Stylus Publishing, London.

Jennings, B. F. & Lumpkin, J. R. (1989) Functioning Modelling Corporate Entrepreneurship: An Empirical Integrative Analysis. *Journal of Management* 1989, Vol. 15, No. 3, pp. 485-502.

Johnson, R. B., Onwuegbuzie, A. J. & Turner, L. A. (2007) Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, Volume 1 Number 2, April 2007 112-133 DOI: 10.1177/1558689806298224

Jopling, D. (1996), "Sub-phenomenology", *Human Studies*, Vol. 19 No. 2, pp. 153-173.

Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioural science*. San Francisco: Chandler.

Khan, S. N. (2014). Qualitative Research Method – Phenomenology. *Asian Social Science*, Vol 10, No 21, pp. 298-310.

KPMG. (2020) *Future of Higher Education - A blueprint for digital transformation in universities*. <https://home.kpmg/au/en/home/insights/2020/10/connected-enterprise-higher-education.html>; <https://home.kpmg/content/dam/kpmg/xx/pdf/2020/10/future-of-higher-education.pdf>: 5 March 2021,13:37].

Laird, J. (2017, August 1). *Ranking the rankings: How international students' choice of rankings is changing*. [Blog post.] Retrieved from <https://www.hobsons.com/apac/resources/blog-rankings-how-international-students-choice-of-rankings-is>

Langenbach, M. (1995), "Phenomenology, intentionality, and mental experiences", *History of Psychiatry*, Vol. 5, pp. 209-224.

Liamputtong, P & Ezzy, D, *Qualitative Research Methods (Second Edition)*, 2005, Oxford University Press, UK.

Lumpkin, G T & Dess, G G. (1996) Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 1996, Vol. 21. No. 1, pp. 135-172.

Lynch, K., & Ivancheva, M. (2015) Academic freedom and the commercialisation of universities: a critical ethical analysis, *Ethics in Science and Environmental Politics*, Vol. 15: pp. 6, 2015

MacMillan, I.C., Siegel, R. and Narasimha, P.S., 1985. Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing*, 1(1), pp.119-128.

Marginson, S. & Considine, M. (2000). *The enterprise university: Power, governance and reinvention in Australia*, Cambridge University Press, New York

Marginson, S. (1998). 'Nation-building universities in a global environment: The choices before us', paper presented at University of South Australia, September.

Marginson, S., 1997. Competition and contestability in Australian higher education, 1987/1997. *Australian Universities' Review*, The, 40(1), p.5.

Marginson, S., 1997. *Markets in education*. Sydney: Allen & Unwin.

Marshall, C & Rossman, G B. (2006) *Designing Qualitative Research (Fourth Edition)*. Sage Publications, CA, USA.

Mather, J. (2010) *Overseas students vanish as policy toughens*. (The Australian Financial Review, 27 July 2010)

McClelland, D.C. & Mac Clelland, D.C. (1961) *Achieving society* (Vol. 92051). Simon and Schuster, Mew York, USA.

Meister, J.C. (1998) *Corporate Universities: lessons in building a world-class workforce*. New York: McGraw-Hill.

Merleau-Ponty, M. (1962), *Phenomenology of Perception*, trans. by Smith, C., Routledge & Kegan Paul, London.

- Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998) *Strategy Safari, A Guided Tour Through the Wilds of Strategic Management*. The Free Press, New York, USA.
- Morecroft, D W & Sterman. J D. (1994) *Modeling for learning organizations*. Productivity Press, New York, USA.
- Neumann, W. L. (2011). *Social research methods: Qualitative and Quantitative approaches* (D, Musslewhite Ed. 7th ed.). USA: Allyn & Bacon.
- Newman, J.H. 1852. *The idea of a university*. James Duffy, Dublin.
- Newman, J.H., 1982. *The idea of a university*. 1982: Introduction and notes by Martin J. Svaglic. University of Notre Dame Press, Indiana, USA.
- Newman, John Henry Cardinal (1852), 'The idea of a university' (1976, Ker, I T, Oxford, Clarendon Press).
- Nybom, T. (2003) The Humboldt Legacy: Reflections of the Past, Present, and Future of the European University. *Higher Education Policy*, 2003. 16. (pp. 141-159).
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.) Thousand Oaks, CA, USA: Sage Publications, Inc.
- Pelikan, J., 1992. *The idea of the university: A reexamination*. Yale University Press, Conn., USA.
- Penrose, E.T., 1959. *The Theory of the Growth of the Firm*. Oxford: Blackwell.
- Porter, M.E., 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Prince, C and Beaver, G. (2001) The Rise and Rise of the Corporate University: the emerging corporate learning agenda. *The International Journal of Management Education*, 1(2):17-26 May 2001 DOI: 10.3794/ijme.12.5.
- Punch, K F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches* (1st ed.). London, Thousand Oaks, California, New Delhi: SAGE Publications.
- Raciti, M. (2010). Marketing Australian higher education at the turn of the 21st Century” A precis of reforms, commercialisation and the new university hierarchy. *e-Journal of Business Education & Scholarship of Teaching*, Vol. 4, No. 1, 2010, pp: 32-41.

- Reader, D and Watkins, D. (2006) The Social and Collaborative Nature of Entrepreneurship Scholarship: A Co-Citation and Perceptual Analysis. *Entrepreneurship Theory & Practice*, May, 2006, p. 417.
- Readings, B., 1996. *The university in ruins*. Harvard University Press, Cambridge Mass.
- Robertson, S.L. and Olds, K., 2016. Rankings as global (monetising) scopic systems. In E. Hazelkorn (Ed.) *Global Rankings and the geopolitics of higher education. Understanding the influence and impact of rankings on higher education, policy and society* (pp.54-77). doi: 10.4324.9781315738550
- Sale, J. M., Lohfeld, L., & Brazil, K. (2002). Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research. *Quality and Quantity*, 36(1), 43-53.
- Schidt, HA, Zahra, SA and Sillanpaa, 2006, Scholarly Communities in Entrepreneurship Research: A Co-Citation Analysis. *Entrepreneurship Theory & Practice*, May, 2006, p. 399.
- Schumpeter, JA, (1934) *The Theory of Economic Development, An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. (1951, Harvard University Press, Mass., USA).
- Schutz, A. (1967), *The Phenomenology of the Social World*. Northwestern University Press, Evanston, IL.
- Schutz, A. (1966), "Some structures of the lifeworld". *Collected Papers*, Vol. 3, Martinus Nijhoff, The Hague.
- Schwandt, T. A. (2001). *Dictionary of qualitative inquiry* (2nd ed.). Thousand Oaks, CA: Sage.
- Scott, P. (1984) *The Crisis of the University*. Croom Helm, London.
- Shane, S.A. (2004) *Academic entrepreneurship: University spinoffs and wealth creation*. Edward Elgar Publishing, Cheltenham, UK.
- Shane, S. & Venkataraman, S., 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), pp.217-226.
- Slaughter, S. & Leslie, L.L. (1997) *Academic capitalism: Politics, Policies, and the Entrepreneurial University*. The Johns Hopkins University Press: Baltimore, Maryland, USA.
- Smith, J. A., & Osborn, M. (2003). Interpretive phenomenological analysis. In J. A. Smith (Ed.), *Qualitative Psychology, A Practical Guide to Methods*. London: Sage.
- Sokolowski, R. (2000). *Introduction to phenomenology*. Cambridge, UK: Cambridge University Press.

- Spielgelberg, H. (1982), *The Phenomenological Movement: A Historical Introduction*. Martinus Nijhoff, The Hague.
- Sporn, B. (2001) Building adaptive universities: emerging organisational forms based on experiences of European and US universities. *Tertiary Education and Management* 7: 121–134, 2001.
- Sporn, B. (1999) *Adaptive University Structures: An Analysis of Adaptation to Socioeconomic Environments of US and European Universities*. Higher Education Policy Series 54, 1999. Jessica Kingsley Publishers
- Sporn, B. (1995) Adaptation Processes at Universities Organizational Implications of a Complex Environment. *Tertiary Education and Management*, Vol. 1, No. 1, 1995, 72-75.
- Starks, S. & Trinidad, S. B. (2007). Choose Your Method: A Comparison of Phenomenology, Discourse Analysis and Grounded Theory. *Qualitative Health Research*, Volume 17, Number 10, December 2007, pp. 1372-1380.
- Sterman, J D, *Business Dynamics, Systems Thinking and Modeling for a Complex World*, 2000, McGraw Hill Higher Education, New York, USA.
- Stewart, D., & Mickunas, A. (1974). *Exploring phenomenology: A guide to the field and its literature*. Chicago: American Library Association.
- Symes, C. (1996) 'Selling futures: A new image for Australian universities?' *Studies in Higher Education*, vol. 21, no. 2, pp. 133-147.
- Teh, K. & Roos, G., 2015. *A patent perspective of South Australian innovation: An indicator within the regional innovation system story*, In *Integrating Innovation: South Australian Entrepreneurship Systems and Strategies* Paperback (Ed. by Roos, G. & O'Connor, A.). University of Adelaide Press, Adelaide, Australia.
- Trow, M (1998) *On the Accountability of Higher Education in the United States*, in 'Universities and their Leadership' (1998, Princeton University Press. Ed. Bowen, WG and Shapiro, HT).
- Vesper, K.H. (1990) New venture strategies. *University of Illinois at Urbana-Champaign's Academy for entrepreneurial leadership historical research reference in entrepreneurship*.
- Wieruszowski, H. (1966) *The Medieval University*. Van Nostrand Reinhold Company, New York, USA.
- Waks, L. (2002) In the Shadow of the Ruins: globalization and the rise of corporate universities. *Policy Futures in Education*, Volume 2, 2002, p. 278.

Wright, M, Bart, C, Mustar, P & Lockett, A. (2007) *Academic Entrepreneurship in Europe*. Edward Elgar Publishing, Cheltenham, UK.

Yin, R.K. (1994). *Case Study Research: Design and Methods*. London: Sage

Appendix A: thematically focussed coding with annotations

Appendix B: 'open', emergent coding

Appendix A

thematically focussed coding with annotations

Colour coding: driver = []; response = []; balancing = []

1.	<p>Driver: student profile and expectations: p. 5</p> <p>Check to see if already in.</p>	<p>I think one of the big ones would be the number of students, the diversity of students and the proportion of the citizenry that think that their students should go to a university.</p> <p>The changes that accrue from the mass action of so many students - leave aside, even for the moment, the foreign students coming in, which has got its own unique opportunities and challenges. Just the number of students that now expect to come into a university and exit with a degree. That has enormous ramifications for how you teach and the sort of services that need to be provided to students. The wastage that happens. The flow-through to how does the country support such an education system - so all the funding. That's been absolutely huge.</p> <p>... So I think, yeah, student numbers, student mix and community expectations have been a huge driver. Huge.</p>
2.	<p>Response: p. 7 Follow the money</p> <p>Responses: international students: p. 7</p>	<p>Look, I suspect that the sorts of things we might identify at the University of Adelaide will not be much different to any other medium sized university. I think the way the universities have responded is they follow the money trail. What can you do? They've - and the way they follow the money trail is to maximise whatever you can, to get into the public purse from the government. ...</p> <p>Some universities almost - well to a fault - have tried to attract foreign students. Sometimes without much thought to the welfare of those students, at least initially.</p>

3.	Driver and response: p. 7 – commercialisation & engagement with industry - DUAL	<p>The other thing - and the thing I suppose that I've come up against most of my - or some of my academic life, has been the commercialisation, the engagement with industry. Basically how does an academic make a profit? That's what it is. It's quite interesting because, once again, these things are never isolated. Even the research quantum, to a degree, is driven by that. Because we've now got ARC with their Linkage Grants. Where in the past, pure or at least minimally impure research from - funded by the government. You're now being encouraged to actually do it with industry.</p> <p>I think the NH&MRC has got a similar plan that's come out as well in recent years, which I haven't got much knowledge on. But certainly Linkage Grants.</p> <p>So I think commercialisation of university intellectual property and knowledge and ability has become increasingly important.</p>
4.	Response: commercialisation p. 8 Of teaching and research.	<p>I think the commercialisation focus on universities has affected everyone. Whether they know it or not, and most of them know it.</p> <p>Even down to people, who do teaching rather than research, and it affects them in two ways. The first is they feel - and even people doing just pure research. Everybody feels pressure on making sure that they bring in enough money to justify their existence. Now even if you're not doing research, if you're, quote unquote, just doing teaching, then you're scared that you're - and literally you have a fear - that your courses will not be popular enough to pass muster from the DVCE. Or that you'll be looked down on because you're not bringing money in, because you're not doing the external consultancies or that sort of thing.</p>
5.	Driver and response: indicators of success + grants p. 14	<p>Yes because you could argue that even in a so-called free research area - I'll take the example of a philosopher for instance - philosopher needs typically</p>

		<p>very little other than just sitting on the rock thinking deeply about a range of things, but that person needs access to resources like libraries, et cetera and importantly that person would actually in the system be rewarded on the capacity to attract grants.</p> <p>So even though that person may not need the funding, that person will be very actively seeking funding because that input has become - and I think it is a distortion of what the system should be - but that income has now become an indicator of success.</p>
6.	Driver and response: export and diversify income p.15	Well it's been the agenda for growth and particularly the international student growth. I think there has been again damage coming from a public or government narrative that built up the sector as an export earner which I think is a despicable turn of phrase and I think it will put Australia to great shame in due course.
7.	<p>Driver and response (connected): p. 16 – funding and international students</p> <p>Check whether included already.</p>	<p>I think that they're the two sides on the same coin. It is because governments were not willing to invest properly in tertiary education that the universities have had no other choice than to seek international students and then that has created the realisation that far from requiring you know further investment you could actually now milk a sector which you had starved of funds.</p> <p>So it's a double whammy if anything, but it is all the same cause. The root cause is a complete ignorance by the government of the long-term benefit of investing in a tertiary education system. You know I put that down to the electoral cycle.</p>
8.	Driver or response: technology – this becomes a recurring theme. p. 16	... that that growth has required universities to deal with a whole range of things that were not at the forefront. So I mean technology has been a big

	Driver or response – enabler?	element. But you wouldn't need technology if you didn't grow in the way that you did, so technology is part of the response to growth, but it has also become a catalyst for change in the pedagogy that we apply.
9.	Drivers and response: rankings and international students. p. 24 Is this already included?	Well, in this country, overwhelmingly, the pressure has been the research arms race, I would call it. The fascination with international league tables and ranking systems, and the determination to have a few universities in the country that competed on the international stage - but then the other thing, of course, has been the economic imperative, which drove Australian universities in the '90s into mass recruitment in Asia. The sad fact that we have here, that every single domestic university student in this country has their education, \$1,200 a year – their education is being paid for by an Asian student who sits beside them.
10.	This appears in FOUNDATIONS, note as a response: now a business. p. 30	Well although from the kinds of things we were talking about at the beginning, <u>our basic orientation and foundational values are, I think, around public good and non-commercial.</u> We honour businesses. I'm not sure when this university became a business. <u>I'm not sure to what extent it was a business when I got here 16 years ago but it's sure as hell a business now.</u>
11.	RESPONSE AND DRIVER: RANKINGS/COMPETITION [LINKED] p. 31	To a degree, that <u>system has dissolved.</u> There has been <u>more movement and the movement has manifested itself as a form of competition among the institutions</u> in a way that I think did not exist in the same sense. There's the claim for a kind of class mobility, if you like, among institutions now that

		<p>is probably greater than once there was. Is the Go8 really eight or is there really a Go4?</p> <p>... [COMPETITION:] ... it is significantly driven by the <u>expansion of the system</u>. So that creates opportunities. Opportunities lead to opportunism. Vice-Chancellors being what they are, they're mostly opportunists. So there are elements of that. <u>There is an increasing level of competition which is as it were marked by rankings</u>. Therefore there is - you know, these kinds of changes are status - so there is less status in being a good community teaching institution. ERA, I think, is again typical in its language. It is all about world standard. So we are in a sense in competition with the rest of the world.</p>
12.	Response: business decisions p. 32	<p>The need to grow of course breeds the need to compete. I think we are much more - in one sense I think I spend <u>a great deal more time thinking about money than my predecessors may have done</u>. I don't think that's just the way I do the job, I think that's...</p> <p>Partly because of the financial environment in which we operate, I think we have to make more business-led decisions than perhaps our predecessors had to.</p>
13.	Response to government funding, competition: p. 33	<p>... we're again in <u>competition</u> with each other as institutions for the <u>commercial dollar</u>, wherever that comes from.</p>

		<p>At the same time, we are required to be <u>more accountable and more compliant with government determinations</u> over what we do with the money that we do get from the government and indeed what we do with money we get from elsewhere. So those things frame what we do. But I think that there are a whole bunch of other broadly ideological factors that have driven us to where we are now. <u>It is not okay not to be entrepreneurial.</u></p>
14.	Balance:	<p>So I suppose if I was being grandiose about it, part of what you do is you attempt to run the business in a way that protects the foundational values with greater or lesser degrees of success. You stick your finger in the dike and the hole gets bigger.</p>
15.	Driver: rankings, competition p. 36	<p>I think that the extent to which universities have bought into that process and drank the Kool-Aid and in some sense, accepted that this is a meaningful process, when actually even at the level of its metrics, it's profoundly questionable.</p> <p>But I think that the extent to which the universities have bought it and then the external agencies - so these kinds of declarations that Australia should have five universities in the World Top 100 or whatever - things that are just nonsensical. It's meaningless as well as being impractical. But it's indicative of the extent to which competition, which is an essentially commercial competition, has now become an accepted part of what we are and what</p>

		we do.
16.	Response: managerial, business-like p. 36-37	... increasingly and increasingly locally because everyone is looking to score points and grab headlines and all the rest. We've obviously also - but thinking about collegiality - partly because the institutions have just grown, <u>at least in governance terms collegial governance no longer exists. It's no longer functional.</u> So we are much more managerial institutions than we ever used to be, so we make more managerial decisions. That means that the <u>managerial decisions are more like business decisions.</u> Again, those things are all interlinked and they reproduce each other.
17.	Balance: mission p. 36-37 [This is also a RESPONSE.] BA model; cross-subsidy to enable balancing. Cross-subsidy is a theme model. [How much to include?]	... I think we do them consciously. I can certainly think of lots of <u>strategic settings and policy decisions that are made around balancing</u> - this university has a mission that I guess comes out of its history. So it has a significant social justice orientation that I think is in the DNA of the institution and that that <u>mitigates its business orientation</u> , to an extent, quite possibly in a way that's not competitively good for it. But it does influence, in effect, decision-making. ... As a simple example, research in this faculty - given how the faculty earns its money, if you were making a simple set of business decisions, you wouldn't bother doing Humanities research. Humanities research is an expensive luxury. It's also absolutely foundational to the values of the institution but it's still expensive.

		<p>... So necessarily, you balance the level of resources that you put into it against the requirements of earning enough to pay for what you have to pay for.</p> <p>... there is a package of <u>cross subsidy</u> that goes on.</p> <p>We're educating people who see degrees primarily as vocationally-oriented and functional objects. The BA, whatever it is, is not that. It's consciously not that and so its capacity to appeal to the market is currently reduced. I'm not sure that it's ever going to get better. It will always retain a market.</p> <p>This last year we introduced a BA for high achievers and we did recruit. We recruited better than our target for that, so there are still smart people out there who want to study the things in a BA. But I think the environment in which you can expand BAs at the moment, is actually a quite narrow one and it's fairly status-bound.</p> <p>... The other thing that I think - to some extent this may have impacted on the BA - well it has impacted the BA numbers. <u>Our BA-BA double degrees have also been very successful. Again, that is a vocational and non-vocational combination, although the non-vocational component has a direct vocational element in it in that you have to be able to teach something, you need to know some content.</u></p>
--	--	---

<p>18.</p>	<p>RESPONSE AND BALANCE: to standards – internal governance model, exercise of judgement. P. 38-39</p> <p>Judgement = balance</p>	<p>The new regulatory structure nationally with TEQSA does have in it <u>threshold standards</u>, a statement about a clear separation - ... - a clear separation between the <u>academic and corporate governance</u> of a university.</p> <p>Now what that means is a good question. There are some interpretations which think it means a separation of academic life from management, in which case I'd be part of management. My interpretation is different from that which is it's a <u>separation between the governing council which is headed by the chancellor and the academic governance headed by the vice-chancellor</u>. In that case, I'm part of the academic realm rather than the management realm.</p> <p>I think that's what it's intended to do. The <u>governing council has corporate responsibility</u>, in particular to do with risk management and finance and corporate governance. But it would be improper for that council to decide the content of a degree in biology. So that's my interpretation. I think that is a distinct part of what a university is.</p> <p>... [in relation to the separation of these roles/functions] [i]t is a contested area but the University's claim would be, when it comes to a conflict, there is a separate sphere of autonomous judgement.</p>
<p>19.</p>	<p>Drivers and response: school leavers/students, changes to them; technology; (R) adapting. p. 42-43</p>	<p>I think all universities are affected necessarily by the <u>changing culture</u> around them. The <u>school leaver student body is naturally quite different</u> than it was when I was a school leaver and inevitably that <u>changes their</u></p>

	<p>There is an emerging recurring theme of technology as a driver and also an enabler; and perhaps a way of responding to the market.</p> <p>See also remarks about students responding to rankings. Lots of linkages here – models?</p>	<p><u>demands</u> for what they're looking for and their perception of what the University is. So all universities, [wherever on] the <u>league table</u>, are finding students coming in even with <u>high ATAR</u> scores who some of us think are less skilled at English grammar than they used to be but more highly skilled at IT, techie things than they used to be.</p> <p>... There's an impatience about getting through, more than the more leisurely time when university education was more elite. It comes out in things like the role of technology in <u>delivering our courses</u>. We're all now involved in blended learning because it's a good way to learn. But the stand-up-and-teach technique, lecturing to quiet people and then tutorials - a lot of that happens but we're all grappling with how to change that, not least your new vice-chancellor. How do you achieve a given set of <u>learning outcomes</u> which is the goal through <u>different modes of delivery</u>? Is the decline of the traditional lecture a problem or is it simply a need for us to adapt to the dissemination of information in different modes?</p> <p>My answer is <u>we adapt</u> to it, that the blended learning is educationally very welcome. It provides improvements in the learning process but it provides them in a way that we have to adapt to the convenience and needs of the students rather than our convenience and needs. That's always been the case, I think. We've just become more stuck. The rise of online competitors increases the challenge. If you can get a degree anytime, any device, at your</p>
--	--	--

		<p>pace, is that a challenge to us that have lecture theatres and car parks and things? I think sometimes we exaggerate the challenge but I think it is a challenge. To me, the aim in <u>education is learning outcomes</u></p>
20.	<p>Driver (of a review, Bradley) and the related responses (in terms of students): accountability. P.43-44 Elevation in teaching quality [R]</p>	<p>... That's the <u>accountability structure</u>. That's behind the <u>Bradley Review</u>. Denise Bradley went around in her review three or four years ago and told us that, look the game's up. I've been to Canberra where the people are your paymasters and they are your graduates and guess what? They don't think that much of what they experienced with you. They aren't that happy with their education. They found you aloof, not customer-focused, too distant. I'm exaggerating.</p> <p>So the Bradley Review commissioned work on <u>student engagement and student perception</u> and found that in general our students - compared with North America and Europe and the UK - were less happy with us. There's a gap in those graphs. So this culture of diffidence and distance, I think, disappeared [unclear] change.</p> <p>... [R] Another important change, all part of the same syndrome - certainly at Flinders, I don't know whether it's true elsewhere - has been the <u>elevation of teaching quality to an unambiguous expectation of what we should be doing</u>. It's the biggest change in my time in this business, in quite a few decades.</p>

21.	Driver (financial) [check if already included]; response (international + commercial): p. 45	<p>There are financial drivers, I think, that compared with - in national universities, we're doing pretty damn well at the moment and we're realising that. But certainly the per student, the <u>per capita Federal funding has declined</u> and as a group, the universities went <u>international</u> in a big way, driven in part by the need to make money out of them.</p> <p>So <u>commercial considerations came into that drive</u>. There will be some who claim that commercial considerations <u>have infected the academic project</u> in that way.</p>
22.	Balancing: p.46-47 accountability; use of judgement; also see earlier remarks about connection to separation between operational and academic governance.	<p>There are always tensions if you have a pure notion of what you want to do, if we're driven by, a university has to be just this. I think it always has been but it's about managing a balanced approach which is <u>managing accountability with autonomy</u>, about <u>managing engagement extramurally with some detachment</u>. It's about <u>managing a proper corporate approach with recognising that innovation happens at the bottom</u>, that universities aren't named for DVCA's, they're named because someone in science invented something or someone in nursing is a great teacher. It's about commercial viability while maintaining academic standards.</p> <p>None of those are - all those are a matter of balance and judgement and a lot of the critiques of universities are by those who I think had an unbalanced view. If you want to say universities are declining because we yield too much to outside influences, I'd say well we do yield a bit, we ought</p>

		<p>to, it's a matter of balance in judgement.</p> <p>I've never had a problem with that <u>sense of balance</u>.</p>
23.	<p>[continued] Balance: p. 47-48 I respect to 'managerialism' understanding academic decision-making, and the difference between transformational and transactional.</p>	<p>... I could critique some <u>managerialism</u>. I think, that must be me, I'm now a manager. I've long regarded myself as an academic leader rather than as a manager and when you've been involved as a non-academic manager here, for better or worse, what this University has done has been through decisions of academic leaders. There have been vice-chancellors, executive deans, school deans. We have, I think, a pretty competent professional staff. But I think, for better or worse, it's academic decision-making that leads things for better or worse.</p> <p>...</p> <p>The literature on leadership - you probably know a bit - but the [claims are usually that] there are two sorts of good leaders - <u>transformational and transactional</u>.</p>
24.	<p>Forms of BALANCE: research and teaching P. 50</p> <p>??</p>	<p><u>My view would be the following, that universities are distinguished by doing both and in particular by having research-informed teaching</u>. But it doesn't mean that you can't have individuals around who are mainly teachers as long as they're doing research-informed teaching and it doesn't mean certainly you can't have people who are 100 per cent researchers. It doesn't mean that all of our staff have to embody that balance. The institution has</p>

		<p>to embody that balance and hence the education-focused initiative that this University has made, I think, is quite consistent with an institution that does both. ...</p> <p>... Actually another observation is maybe what my vice-chancellor is saying. How does a university like Flinders - like many universities - cope with a comprehensive range of courses and teachers with the imperative that we should focus our research more? I think that's probably happening everywhere. What we say is we need to appoint academic <u>staff who can teach broadly but research narrowly which implies that we're teaching in areas outside our research specialisation</u>. We want to reinforce our research strengths by picking people who are particularly good at a certain area but they must be able to teach broadly.</p>
25.	<p>DRIVER: p. 53 – viability; commercial, corporate – innovation [RESPONSE]</p> <p>?? counterpoint with ‘independence’ [check where already mentioned in chapter 4.]</p>	<p>It depends on culture, it depends on independence of universities, whether it's economic, financial or even political independence. I would imagine outside Australia in some countries they may not be able to be as free and often find themselves in trouble. Throughout history, university academics have been targeted by political and military groups, the dictators and so on. They are sometimes the first group to go somehow, whether they kill them or silence them is the same thing, in terms of the ideal of the university.]...</p> <p>They are not as focused on profitability if they can manage it, whereas most</p>

		<p>universities and particularly now in Australia, most universities are now becoming the same in that score. That is that they are focusing now much more around viability, enterprise from the commercial side - the word enterprise - innovation but around areas that will make their bottom line better.</p> <p>Indeed, most universities and senior management - universities have become much more corporate.</p>
26.	<p>RESPONSE: short-term benefits focus p. 54;</p> <p>Management – more commercial, entrepreneurial; short-term benefits.</p>	<p>... . Management and leadership in the university now, the form of the administrative management and leadership is very much entrepreneurial, very much commercial, very much not that different to enterprise outside universities in other sectors.</p> <p><u>Leadership in research</u> is also guided by that. You only have to look at the <u>chief scientists' themes</u>, very much more around focused on challenges and problems, immediate challenges and longer-term challenges of problems of the nation. Nothing wrong with that. In fact as we said before we do things that we do for the sake of improving our environment - in other words, the lives of the inhabitants of our environment.</p> <p>So there is nothing wrong with that but the <u>focus now is much more around short term benefits and short term rewards</u>. <u>Probably fewer and fewer universities do things just for the sake of advancing knowledge</u>.</p>

27.	RESPONSE: contended to age of institution – if younger then responds by being more commercial. P. 55	<p>I think our own university because its <u>survival</u> - because it's young - and so <u>our own university would probably be no different to any other young university</u> but because it is young, because it doesn't have the - I guess the head start and the financial base in some sense, other properties or whatever - although I think we're doing pretty well - but it hasn't had that. Because of that it has to be more commercial by nature to survive, because it doesn't have any affiliation with kings or even with IT millionaires and it doesn't have - it cannot get enough from the Government.</p> <p>... it is by design, by circumstance it is much more entrepreneurial, much more commercially focused than possibly the big eight would be because many of them have the financial resources and a lot of the other stuff to support them, although today that's changing very fast.</p>
28.	Drivers and responses: government and <u>industry</u> research priorities; response if applied and immediate research results; can impact on 'independence' – so related question about achieving balance. P. 56-57	<p>In academia, in research for instance, they want to advance knowledge. The only way that they could advance knowledge in most fields of expertise is through some kind of funding, the time and the funds - the resources - for them to pursue it. If they need funding, where are they going to get it from? Industry, which is highly focused on immediate results and applied results - and government.</p> <p>... .. <u>So that is one area where the money, thus the people that control the money, which is the Government by and large and industry, they would kind of set the priorities for the research. So they do control the university.</u></p>

<p>29.</p>	<p>Response: to be sustainable, innovation, internationalisation (which is entrepreneurial). P. 58</p>	<p>We've <u>survived</u>, number one. That means we have done what it takes <u>through innovation to allow us to have financial benefits - financial rewards that sustain the university.</u> We certainly have taken much more risk. We certainly have moved to new markets and we constantly look at new markets.</p> <p>I mean the <u>internationalisation of education is an entrepreneurial</u> thing that - actually Australian universities have been leaders in that</p>
<p>30.</p>	<p>Response: outputs, research translation</p> <p>Major driver: national benefit/translation</p> <p>Rankings, performance – therefore response in the form of culture change: quality and quantity of performance. ERA influence – policy.</p>	<p>I guess at a top level - let's take research, where I'm most comfortable. What excites us most really, what we aspire to most, is for our researchers to be known around the world as people of eminence that have made a distinguished influential contribution. So the <u>highest priority in research is that our researchers generate outputs</u> that are admired around the world and that are used around the world. Now used can take many forms. I guess from the basic research point of view used means that those research outputs influence the course of the field, they contain discoveries and so forth.</p> <p>We also place great stock in research on the translation of research. So for example we will have tremendous stories about fundamental agricultural research having translated into more effective and productive wheat and barley crops that are serving the nation well in the face of drought and salinity, for example. So the national benefit associated with the</p>

		<p>translation of research is very important to us. It's not a driver - it's not the utmost driver, but it's a very important...</p> <p>... A good example would be renewable energy, for example, which has had a <u>substantial boost from the federal government</u>. So research eminence and prowess is a fundamental driver.</p> <p>... So the fundamentals are that <u>we hire great people</u>, we support great people, we have a culture of great environments for PhD students. If you take care of the fundamentals, the rest will take care of themselves.</p> <p>However, international rankings are a very big factor for us now. We know that students and staff overseas look at international rankings and are attracted or not attracted to university because of that.</p> <p>... [ERA] We also have in the country now, the Excellence in Research for Australia, which is the ERA, which is a way of <u>assessing all universities' research</u>. That is very influential I think. To some extent it affects funding, although not markedly, I have to say. We are very highly motivated to make sure we're performing well in there. <u>There has been a cultural change as a consequence of the last [ERA] for example, in that people are realising that publication numbers, quantity, is far less important than quality</u>. So a long list is unimportant if the quality is poor. We need quality and quantity.</p>
31.	Responding to technology: p. 65 – the delivery of teaching, the	In <u>teaching</u> however we're going through what appears to be a <u>revolution</u> , <u>that because of technology</u> available to young kids who are used to dealing

	<p>student expectation.</p> <p>So, in this case technology is a DRIVER.</p>	<p>with video and iPads and <u>digital recordings</u>, the lecture given to 500 people is not convincing anymore. These kids might as well deal with that using excellent <u>e-learning facilities</u>. We still are committed to <u>face to face learning</u>. However, we want that to be in the context of small group tutorials where the professor now is dealing in an inspirational way with smaller groups and having genuine interactions. The 500 classes have got to go.</p>
<p>32.</p>	<p>Responding: to the cost of research – the response is through government block grant funding (lobbying for more adequacy), <u>and internal business models to cross-subsidise those costs.</u></p> <p>Note this takes a number of forms: teaching supporting research, contract research supporting less profitable research, between academic units (such as between faculties with different margin and cost structures).</p> <p>Also, researchers responding how they balance their research etc., financial balance. P. 65-66</p> <p>[Focus the excerpt to the right.]</p>	<p>... One of the challenges we have in good universities undertaking research is that we can be very successful in winning <u>competitive research funding</u>, which is a very important part of what we do, so national competitive funding, so called category one funding. That means our researchers might get lots of money for important equipment or lots of money to appoint post docs to undertake research. What it <u>doesn't pay for is the underlying costs of hosting that research</u>. So every time we're successful <u>in bringing in \$1 million, it's thought that we need about effectively \$1.2 million in underlying costs to host the research</u>. That is just taken for granted.</p> <p>So one of the things we've worked very hard to, for example, convince this government to do a few years ago was to increase the so called <u>research block grants</u>, which are meant to give us some underlying support for the costs of hosting the research we undertake. Whereas it costs about \$1.27, let's say, to host every dollar of research we undertake, and that's probably</p>

		<p>on the low side, we were - in block grant perhaps we might be getting of the order of 20, 25 cents. The government decided that should go up to 50 cents and has been on track to do that until the recent cuts, which have suddenly slowed that or stopped it.</p> <p>That's been quite a blow because we've been planning research equipment upgrades and various space upgrades and that has put that on hold. We've had other cuts to the university sector which have really hurt. So we're constantly babbling to explain to the government that if they have a certain amount of money to fund research, they must not be ignorant of the underlying costs of hosting the research. There's the direct costs and the indirect costs.</p> <p>... . It's <u>the research intensive universities that are actually hurting</u>. It's the successful universities that are hurting, <u>because research success, in terms of money coming in, carries with it huge responsibilities to host the research, for which we have no support</u>. Then that then requires effectively cross subsidising from teaching, which in turn undermines the teaching of it.</p>
33.	<p>Balance: see different forms of balance – types of research.</p> <p>Response: <u>portfolio approach</u> – a strategy. P. 67 Balance contract with <u>fundamental research</u>.</p> <p><u>[See the last paragraph about contract and fundamental</u></p>	<p>... we have a commercialisation organisation as you know, ... I told the board the other day that - we have a new board member. I said, it's not to be assumed that a mission of this board is to grow the business maximally. Because what - <u>the business that contract researchers especially undertakes</u></p>

	<p>research 'feedback' loop – positive connection.]</p>	<p>is a part of our wider spectrum of activities and needs to be in balance with the others. So if that group enormously contract, other activities would suffer. For example the fundamental research.</p> <p>What I like to say is that our best researchers, many of our best <u>researchers</u>, carry out a portfolio of activities where they are undertaking fundamental research as research based on grants they've got a whole network of <u>students, they've got international connections and they're doing contract research</u>.</p> <p><i>... [Benefit of contract research:] But the benefit of it is twofold. Number one, by interacting with the industry and the outside world, sometimes you can - well we demonstrate impact, but you can sometimes discover great new problems that actually feed back into your fundamental research, new exciting problems of relevance.</i></p>
<p>34.</p>	<p>DRIVER (and response): complex stakeholders [also, point of difference from companies, et al]; universities respond to many stakeholders. Key is funding provider(s). p. 69</p> <p>Become professional, corporate.</p> <p>Mission is not limited to e.g. shareholders in the case of a company.</p>	<p>... we've now become very big enterprises. Universities are incredibly complex organisations, more complex than the average medium sized company. We'll be approaching \$1 billion turnover in the next few years. The complexities of running an organisation like this are enormous. With a company you tend to have a much simplified mission. You need to satisfy your shareholders, make a profit, generate attractive goods. We've got a bit of that but we have a much wider responsibility in terms of relationship with the community, and the many things that I've talked about earlier.</p>

		It's inevitable that we've moved from being collegial organisations run in a fairly amateurish way to pretty large organisations having to be run in a much more professional way. There's always a danger when that happens in moving from that that it's perceived to be corporatism and impersonal.
35.	Response: reliance on international funding. P. 74	... Now all of our universities are reliant on international money . I would say 20, 22 per cent on average in Australian universities but it can range up as far as in to the 40s. That's now a key driver and many vice chancellors and deputy vice chancellors research because that's the other source of income, contract research and so on.
36.	Driver: (student group quotas – required) – indigenous, low SES, etc. p. 75	We've adopted a slogan, if you [want to call it that] <u>at UniSA of equity with excellence. We are finding legislation specifies that we will particularly help those who are the first people in their family to go to universities.</u> Indigenous people so we are an equity university and if you look at the <u>proportion of our kids who come from lower socioeconomic backgrounds</u> it's quite significant, ...
37.	Response: professional, internationalisation. P. 76 Structure of organisation – complexity, engagement.	The teaching, research, the community engagement, we chase dollars. I've noticed the number of universities, for example, in the last two years, there's been some very senior appointments and teams of appointments made in what you might call the engagement , enhancement and fund raising area in universities. We're getting very professional about this now so we've done the international students. We've realised, oh, that's a little

	<p>p. 77 Response: professionalization – performance management. Managerial.</p>	<p>bit shaky so, look, we need to be looking at fund raising itself from whom, what, our alumni, whatever it might be. ...</p> <p>... more professionalization and more demands for professionalization. So I have, in my business school, a full time accreditation officer.</p> <p>... They have to be more skilled, there's no doubt about that. I haven't but if you went back and had a look at the average level of employment of professional staff or maybe you do a bell shape distribution. There's no doubt that the bell shape now in 2013 would be more to the right of the 2003 bell shape. So we've got higher levels, no question about that. <u>Structures are becoming more complicated, we're all in matrix structures.</u></p> <p>The administrative people are a very important part of the team.</p> <p>...</p> <p>But it's become universities, not just UNISA but everywhere has become much <u>more competitive</u>. There is much more scrutiny of what somebody's <u>actually doing</u>. Performance management, we've become much more <u>professional</u> at. So as a university in some ways we become – universities, let me talk plural. We've become much better at what we do and how we manage but some people argue we've become more managerial.</p>
<p>38.</p>	<p>Balance: p. 80. The budget and academic performance, e.g. ERA; scholarship v. bottom-line.</p>	<p>... but it is true that there is a respect <u>for scholarship as opposed to the bottom line</u> and that is one of the big conflicts of course now.</p>

		<p>... they're allowed to express that quite openly which in a lot of organisations of course you've got a vision, a mission and bang that's it. You can't step outside that line.</p> <p>... So it's a game where you have <u>management responsibilities</u> and all those things and there are some areas where they will toe the line but when it comes to anything around what they might look at in <u>their own science or their discipline</u> or whatever, the executive dean wouldn't dream of interfering in that it's very much their realm. That's quite different from most other organisations you might work in where you toe the management line.</p> <p>...</p> <p>I came back in the 90s and it was still a bit that way, but boy since - the last ten years the whole need to <u>balance the budget and live within your means and produce and perform whether it be for the ERA or whether it be for the ATARs of the students coming in, competition for students</u> et cetera that's just changed things dramatically.</p>
<p>39.</p>	<p>Balance: if research focus, need to balance the whole university, across and between faculties. P. 82</p> <p>[Compress this excerpt or paraphrase – as professional staff perspective. ██████.]</p>	<p>Oh the changes to funding have been phenomenal. So for a faculty like ours the additional SRE that was promised we finally went phew, that will help get us through because we are so research focused and the <u>cost of delivering that research is high</u>. Then that was taken away. Then the university overall because you're always competing for a portion of a pie so</p>

		<p>they can either reduce the pie once it hits you or you don't perform as well as everyone else and so your portion of the pie reduces so we keep getting hit both ways. Whilst a bit of that is within our remit to improve if the other faculties don't perform then the university's overall portion goes down.</p> <p>... So it's a battle all the time and that's why Rob the exec dean will always say we might - say oh why aren't The Professions doing more in the research space. <u>But we're very conscious that they support us through their teaching and we're conscious that we need to help them improve their research and vice versa.</u> So it's - you can't - a faculty is not alone in this scenario of funding. You need the whole university to be doing well in order to improve.</p>
<p>40.</p>	<p>Driver and research: research ranking influences student demand. P. 83</p>	<p>The research agenda at this university makes it - gives it its reputation. We're not renowned for producing lawyers and accountants we're renowned for being a <u>research intensive university. That really costs but at the same time if we didn't have that reputation would be getting the international students into our business programs and the like.</u></p>
<p>41.</p>	<p>DRIVER: low SES etc. P. 86</p> <p style="text-align: center;">↓</p> <p>And response: (maps to above): p. 87</p>	<p>I mean one of the drivers if we're looking at <u>government funding now is all with students about how you are addressing the needs of lower SES students. Participation rates, Indigenous students</u> and that's part of our review, we're looking at improving what we do in those regards.</p> <p>...</p>

	Drop pre-requisite subjects; introduce advanced degrees.	<p>So I guess that the big changes in the funding, the nature of the students coming here. The broader range, the emphasis to get into the lower SES, Indigenous look at people for science of course with no science background.</p> <p>...So we <u>got rid of the pre-reqs</u> and it hasn't been a disaster. That was a major, major problem for many of our academic staff. If you scratch the surface it's still there. What was great was that we were able to bring in the <u>BSc (Advanced) to show that we can still get the quality students in</u> and so that's shut that argument up. It's always about like we were saying before, a balancing act. You have to make sure that in easing something up you can still deliver, in this case, quality students. So that's been another major change for us.</p>
42.	Balancing:	<p>... we're talking about the <u>growth agenda in students</u> has to be carefully watched. Because if - in the end it can end up being a cycle of - you end up going under. But it's the <u>same with research</u>. When you have quality research you don't always need the latest whizz bang. We talk about scale and focus in research but we've really got to do that and maybe that's the future, you can't be all things for all people.</p> <p>... If you're talking about the <u>students, okay no enrolment caps. Go for growth but at the same time we've got to have quality students</u>. I come from the era where maybe two percent of most of students went to university and we still have some academic staff who believe that that's - if they don't come with maths 1, maths 2, physics, chem and English then they shouldn't be in a science degree. That has slowly changed, I've seen that change over the last 10 years, but that certainly is a big tension.</p> <p>Having your <u>graduate outcomes</u>, having your quality producing the students</p>

		<p>who are going to become the next generation of research students and researchers and all the rest of it. But at the same time recognising that it's more of a <u>mass education</u> now and a lot of those students really want to be <u>work ready</u>. They don't want a research career. So that's always a big balancing act.</p> <p>...</p>
<p>43.</p>	<p>Responses and drivers: p. 93-94</p> <p>Chicken or the egg with technology, driver or response? The teaching model – is it enabled by technology and infrastructure, or influenced and driven by them?</p> <p>Responding to the global market – technology. P. 95</p> <p>Rankings = DRIVER: p. 96</p>	<p>I think universities now are at that cusp - every university is - with the <u>online and the MOOCs</u> and all this kind of things. Is what is the best way for a student to learn that lecture method? We all know it's [past] and yet we have buildings full of lecture theatres, right? So the infrastructure - and I think that happens in a lot of organisations, not just universities. Where <u>infrastructure - or that infrastructure is the IT infrastructure or the physical infrastructure</u>, the design of space dictates activity, rather than the other way around.</p> <p>...</p> <p>We have systems - whether they're <u>IT systems or lecture theatres</u> - that are <u>based on a model, which is maybe not the right model for today. So changing is - because that's my job, is trying to - not lead change, but coordinate the change</u>. It's easy to write projects. It's easy to write things, but doing them and deciding what it is that actually needs to be changed to have an effect...</p> <p>...</p> <p>We take - the big trends of course globally are the information technology, right? The fact that you can - now if you're a top university with that - I take a marketing tact. If you're a top university with a brand name like Harvard or Stanford or Cambridge or Oxford and you package whatever it is - let's not get too specific. Whether it's an online course or whether it's a TED talk or whatever, putting your brand on there is going to get more awareness and more clicks or more people, than if we're the University of South</p>

		<p>Australia going out to the <u>global market place</u>.</p> <p>So what I think we're talking about is, <u>from the university sector itself, more intense competition</u>. The advent of <u>global rankings</u> - and there's always been kind of rankings, but now they're measured. Whether you like the way they're measured or not, there's lists. So if somebody wants to say well who is the best in X? They can look at rankings and they get that - that makes the competition much more globalised.</p>
44.	<p>Response (and balance): balance income sources – models: <u>cross-subsidy</u> p. 97</p>	<p>In Australia, you've got these whole - <u>these universities that have built their systems based on government funding for teaching</u>. So we don't - we'd never have thought about, until the <u>recent international student push, of other sources of teaching income</u>. So we - I think in that sense, <u>universities were less prepared for the competition in Australia</u> because of their reliance - it's almost like welfare. You rely on welfare; you don't get any job skills. <u>You rely on government funding; you don't learn how to get other sources of income that allow you to do the things</u>.</p> <p>Because - just going back real quickly. It's clear from a university point of view that it's really <u>rare that any research entity pays its own way</u>. That without the - <u>that teaching - and that's one thing a university can do that institutes can't do</u>. They can subsidise research with extra revenue. Whereas an institute, like - I'll take for example, because I know it pretty well, the Wine Research Institute, started by the wine industry. <u>Funded by contributions from growers and wineries, et cetera</u>.</p>
45.	<p>DRIVERS: policy – competencies. P. 98 [Check if included.]</p>	<p>I don't think there's any doubt. I think you're absolutely right. Our government - again talk about <u>government, with TEQSA and all that</u>. They are - they've set frameworks, and it's a competency. It's a glorified TAFE framework that takes it to level 7, 8 and 9, which are the Bachelors,</p>

	<p>Note: does this counter foundational element – competencies v. educating?</p>	<p>Honours, Masters, PhD kind of level. So it takes it up a step above TAFE, in the Honours, Masters, PhD, but it's still a competency. Yes, they claim in the Masters - if you look at the words that are written, that you should be able to do more complex marketing thinking than an undergraduate or whatever. But it's not - we're not pursuing knowledge for the sake of knowledge, and maybe in this modern age, we can't afford to.</p> <p>But I just think probably - and this is just top of my head - that a measurement or an outcome-based system has a hard time measuring those what we call intangibles.</p> <p>...</p>
<p>46.</p>	<p>RESPONSE: ADAPT</p> <p>How widely is this the response in different forms? P. 100</p>	<p>... what you were asking me is how hard is it for universities to adapt, and are we adapting to that? The answer is it is - <u>we already are seeing it's almost adapt and - or die.</u> Because we're seeing universities that are really struggling financially because they haven't adapted. Or they've - like any company, they've invested in maybe the wrong kinds of things. More facilities, regional facilities, offshore facilities. There's a whole range of things that you can invest in.</p>
<p>47.</p>	<p>Other models: RESPONSE – offshore models p. 101-102</p> <p>Over time various attempts by a range of universities to have JV or whole offshore campus models, mixed, often poor results.</p> <p>Typically not enough money to be shared between partners, or cost too high, draw on local resources – hurt by university overheads (corporate expenses). Note: my own experiences – part of PhD contribution.</p> <p>This is another one of the business or other university models.</p>	<p>[E.g. UniSA:] Well one of the things we did - and it's hurting us today, and it wasn't wrong at the time - is we invested in a network of degrees overseas with agents, where we - almost like a franchising model. Where we - we went over there for - as you know - for two times during a semester. But the rest of the time was taught by hired people, using our materials overseas.</p> <p>... Because of our reputation and, in a sense, our naivety in that original [original], a lot of those arrangements <u>were not very good financially.</u> We did get EQUIS accredited, so we were able to - I think - personally I think we maintain the quality pretty darn well. Where some [other] universities have been caught with very differential quality, let's say, between offshore and onshore programs. I think we - UniSA managed that better than many. ...</p> <p>[Exited from franchise model and withdrew programs:] That really - that has</p>

	<p>This has taken various forms. Twinning of degrees with offshore institution or actual JV, or own campus. Contrast with government supported campuses such as CMU and Qatar.</p>	<p>been one of the things that has affected us along with all the stuff. You know, <u>exchange rates</u> and blah, blah, blah. But that has caused our total student numbers - especially international numbers - to be down. After having built a system, which is mainly people, to teach those numbers and now those numbers aren't there. Now you have <u>salary costs that are too high</u> for the number of students you have.</p> <p>... .. in fact we just made a very simple decision - which is surprising, because of all our <u>offshore agreements</u> and things. A simple decision to <u>separate the financial arrangements with an offshore partner from the academic arrangements</u>, which allows us to get a commitment both here and overseas to move forward. So we don't - <u>bundling them together takes a long time</u>.</p> <p>At the end of that time, sometimes it doesn't work and you've both put in a lot of energy. We have put a lot of [energy in] - say developing new courses or new degrees for this partner, fitting into them. Then at the end of it oh, the <u>business model</u> is not very good.</p>
<p>48.</p>	<p>Response: employment, professional related degrees – practice focussed, professional degrees. Fits with emerging engagement focus. P. 104</p> <p>Models to provide experiential component – universities trying to get accrediting bodies to accept virtual, simulated experience.</p> <p>There is much resistance. Therefore it is hard to scale-up such degrees. Risk. New models: universities running own clinics and practices – legal liability to the public.</p>	<p>So we're trying to come up with ways to engage. We're - one of our Crossing the Horizon themes, which is a - really one of the five-year themes is - okay, we have because of - really almost because of <u>practice needs</u>, we have a physiotherapy clinic and all this stuff. We now have an architecture clinic. We have a legal clinic. Should we have a business - we're - should we have a business clinic, where companies can come in and say two hours pro bono work on a marketing plan. You want more, well you pay for more.</p> <p>So we're thinking about how we can engage the different areas that this university has into the <u>community</u>.</p>

49.	<p>Response: managerial – recruitment processes to engineer culture of organisation/university. P. 107</p>	<p>The new process - and we're talking about it. We don't have anything in writing yet. But I know when we hire, you have these documents of characteristics you're looking for, and they're all measurable. How many publications, teaching scores, ability to bring in money and all of that...</p> <p>... in writing - when we write it down, we have to show that they're better on those seven categories. Not because they fit. There's no fit measure, even though we kind of know it. ...</p> <p>our HR group is talking now about how we measure fit and how we build that into the hiring process. So could that be, for example, personality tests? Could it be giving people tasks ...</p>
50.	<p>Response: entrepreneurship and innovation focusses on diversification of funding p. 108</p>	<p>... But I think the change has come - and you were saying about what pressures are - obviously they've changed the funding models. That's been the major - so government policy changes to funding have been the major pushes to force universities into thinking differently. In some ways that's bad and in some ways it's good. I've found, having been in universities for 21 years, most of me thinks it's bad. But, on the other hand, it has forced them to be a bit more entrepreneurial and a bit more innovative in how they source funds and what they do with those funds when they get them.</p> <p>...</p>
51.	<p>BALANCE: the question – foundations and money</p> <p>p. 31 – not mutually exclusive – balance is to be able to do both.</p>	<p>... [Enquiry; exploration; investigation:] <u>So I think that still universities have that focus that they're about changing how we think about things; and allowing the odd questions to be asked; and the obscure things to be asked</u> that people perhaps coming from a business background, in a business world they don't necessarily always think of because they haven't got all the strange, unusual type of people that you get in universities. ... I would hope that the goal is still about contributing to knowledge and advancing knowledge whereas in business it's about making money, but the two aren't mutually exclusive of course....</p>

		<p>...</p> <p>So that could be just purely that that's what they need to do. But I feel like <u>we're pushed too much towards making money and not enough towards quality and advancing knowledge and discovery</u> and those sorts of things.</p>
52.	<p>RESPONSE?: BALANCE? HOW?</p> <p>Competition for students, can lead to reduced admission and selection criteria – increase resources to support students. More students at higher cost. P. 111-112 So this is increased marginal cost for each of these students, yet same income per student.</p> <p style="text-align: center;">↓</p> <p>Increase in academic resources; balance academic activity.</p>	<p>Yeah the <u>tail</u> of students that we're taking ... I think it's true, we do have a <u>bigger tail</u>. I think in some ways we've caused our own problems by catering to that <u>tail by increasing student support</u>. Not that I'm saying we shouldn't support students but a thousand different ways of helping students that it leans towards spoon feeding. <u>Therefore then that comes back to their expectations are lower because they expect to be just given the information</u>. That's a huge generalisation because there are still some fantastic students.</p> <p>...</p> <p>... <u>increased the burden on academics and that has changed academics attitudes</u> as well. <u>Academics were very much about their research and their developing their own knowledge</u> I guess whereas now they seem to spend a lot <u>more of their time dealing with student complaints and filling out the hundred and one forms</u> you have to fill in; the <u>bureaucracy seems to have increased</u>.</p>
53.	<p>DRIVER – impact p. 113 <u>RESPONSES!</u></p> <p>Focus on measuring impact, risk of research becoming consulting.</p> <p>Corporatisation, growing middle management.</p> <p><u>Universities reactive not strategic – reacting to e.g. AQF, ERA –</u></p>	<p>... we would like to think that much of our research has impact but some of our research is not going to have impact for 20 or 50 or 100 years and therefore it's not bad research. ...</p> <p>So if I could do anything I won't get paid for it I would do high level theory which has no practical implication at all at present but eventually it will. So yeah I don't think we should be obsessed about measuring impact but I don't think we should ignore ways which we can measure impact but we have to be broad in our thinking about it. ... So you've got to be sensible</p>

	<p><u>universities are very operational.</u></p>	<p>about what you mean by impact.</p> <p>... We have to be careful that we don't turn research into consulting for business.</p> <p>... just on the corporatisation stuff, a lot of what that has done is change middle-management in universities. So we used to have elected heads of schools and elected heads of faculties and now they're all appointed. That has changed the landscape a little bit I guess both good and bad. So an appointed head can do things that are unpopular and not get booted out the next time their term comes up which is good. But, on the other hand, an elected head gets a stronger following, so they get more support in many ways. So I'm not necessarily saying it's better or worse but it's different.</p> <p>... ; whereas previously I think academics were a bit more independent and did the right thing anyway without anyone leading them. ...</p> <p><u>To be reactive, not to be strategic. That's probably inevitable because every time the government changes we get a different - we get the AQF and then we get the ERA and who knows what's going to happen with TEQSA now that a new government's in.</u></p> <p>... I think the government change has forced us to be reactive but it would be much more useful I think to be strategic particularly at department and faculty level. Obviously at university level too, but at department and faculty level I found when I was a dean I never had time to be strategic because I was always reacting to something.</p> <p>So suddenly there'd be a crisis and someone would say we must do this and we must spend days and days working on reports and doing things. So you mainly do all that as well as trying to do operational things. So my strategic plans were a few dot points that I was always going to do and I never got to them. We did do strategic planning but even our strategic planning was more about swot analysis, it was more about ...</p>
--	--	--

		... It was, very operational . In fact I took a decision in the end to only become operational because we had a faculty strategic plan; we had a university strategic plan. So I said let's not have a school strategic plan, let's just have an operational plan ...
54.	<p>Driver or response?: technology? P. 115</p> <p><u>Revenue and student focus – respond with focussed roles – structural changes – teaching intensive roles.</u></p>	... It probably has affected what they teach so much as how they teach it. So there's much <u>more technology</u> and trying to fit things in the classroom. It might have <u>affected what they research because of funding, because of what gets funded</u> . There is some change though because now most universities have <u>teaching focussed or we call it educational focussed positions</u> which didn't exist before. We always had research only posts, normally grant-funded posts but now I think probably about - my guess would be about 60 per cent of universities have some sort of teaching only or education only .
55.	<p>Balance: 'tension' – traditional values p. 115</p> <p>Different types of balance.</p>	... I think there is tension on it and I think particularly for the newer universities it's a bigger shift away from traditional values. There's no doubt that the traditional role of the university is under threat. I just don't think it's critical yet ...
56.	<p>Balance: research v. teaching/students – school-level balance.</p> <p>Academic workload types of activities [4x]</p> <p>p. 115-116</p> <p>Different types of balance.</p>	<p>... When I was a dean I spent a lot of time trying not to lose some of the good things about the old academics who've been here a long time because there was a lot of negativity towards them; that they wanted it to be like the old days; that they didn't want to do as much teaching. They always put their research above their students which is seen as bad but they also brought a huge intellectual something to us which I never wanted to lose.</p> <p>... it was balanced across the school, not across individuals.</p> <p>... So I was never a believer in force, which used to be forcing everyone to do all four areas. We always had teaching, research, admin and professional service, community service. So I think having education-focussed people is a good thing and having some people focus more on research is a good thing, and having others that do everything, as long as you have that</p>

		balance across the school.
57.	Response: technology as an enabler to innovation but constrained by the driver of funding – linkage p. 116	I think one the other way they can be innovative though is to try and be <u>smarter about what they do</u> . This comes back <u>to technology in the classroom</u> and those sorts of things that I think there are lots of opportunities out there that a few individuals are good at but as an institution we're not good at supporting. I think that comes back to the <u>funding problem again</u> . <u>To make those sorts of changes we need support; we need resources; we need time; we need to go on a learning curve, those sorts of things which are quite hard.</u>
58.	Drivers and responses: research funding performance; metrics; academic behaviours p. 120 Different levels of drivers: funding dollars; research grants; metrics. Responses: academic behaviours shaped by metrics.	... Some - and by that I mean that even though they don't bring in substantial external direct research funding dollars - through ERA, for example, and the SRE funding line. That's no longer the case. They now actually have to - through at least highly cited publications, but I think even to some extent with dollars - direct research funding. They now have to perform to more like the other discipline areas, such as in health sciences and sciences.
59.	Drivers: ! resources ** p. 122	The big drivers? I think <u>contraction of resources, so there's been a huge contraction in the level of resourcing</u> . That's because of the failure to increment [EB] - a related increases in salary. The failure to similarly do that for <u>direct research funding in</u> - certainly in the health sciences area.
60.	[Changes] Drivers/responses DUALITY: government/industry/community expectations → graduates,..professional degrees. p. 122	... Other big changes? Clearly <u>government and apparent industry/community expectations</u> . Particularly the <u>type of - the graduates that are produced and their fitness for purpose</u> , as it were. So it's almost an ideological thing I guess, that you're <u>producing someone who's capable of long life learning</u> . As opposed to an immediate effective product, if you take the professions or <u>professional degrees</u> So I think at least there may have been changing expectations on the part of government industry, as to what graduates should be. Whether they're just made more explicit and whether

		they're concerns are valid of course, is another - a whole other issue.
61.	DRIVERS: p. 122 international rankings, competitiveness Are these first order drivers or the result of higher order drivers such as funding?	There have been other different special government driven pressures, I suppose. International rankings, competitiveness. Why do we need Australian universities, if we can just buy it in? Because ours don't rank that well. That was just - should of - some of the views that have been put forward by government.
62.	RESPONSE: corporatisation, efficiency. How does this connect to being more business-like? Same or similar indicator? P. 124	There is an attitude that academics are essentially a criminal class of wastrels. That really - when you see how - if you see corporatisation in different areas and so on under way or taking place, it always starts from that assumption largely. ... In terms of becoming efficient - this university must have been the last in the country to become electronic, I guess, in a sense. So at least they got on with it, but they made the most appalling decisions re how they would introduce that. So very bad decisions around things like PeopleSoft, ResearchMaster - it goes on.
63.	Responses: METRICS p. 124 ↓	[E.g.] Ruthless with the workforce and actually moving to really be quite strategic in developing their research capacity and profile and their infrastructure. She's - we can see it in their success - <u>different ways of measuring their success</u> and so on. ... But I - you can see - so we now have the next version of ResearchMaster or Aurora happening. But - that's another example. You look at University of Western Australia, which along with UQ, developed the [Q Score] or the [Socrates Index], which is a way of <u>measuring individual research performance</u> . They've been developing these over a number of years.
64.	Responses: Restructuring – retrenchments; map to funding, teaching loads	... we've done things like we've restructured. We've had one or two waves of <u>targeted retrenchments</u> . But have we really changed the culture and behaviour in significant parts of the university? We rate well for our size -

	<p>International students.</p> <p>Restructure to delete non-performing areas.</p> <p>p. 125-126</p> <p>** Centralisation (has not worked); introduced complexity.</p>	<p>one or two, for example, in terms of NHMRC <u>funding per FTE, nationally</u>. But we'd have the most lowly rated Hums disciplines in the country. Why is that? I'm not pointing the finger at the people involved. You can argue that there have been factors, such as and including professions with <u>huge teaching loads, international students</u>.</p> <p><u>The restructures we've gone through - forming schools, for example. Also no signs that that really improved some of the difficult areas, in terms of performance and accountability.</u></p> <p>... How else has the university responded? I think - to me, it - there are huge areas <u>of inefficiency and lack of accountability</u>, as I've talked about, in the university. Some are in academic units, but I think huge amount of it is centrally. If we were ruthless, if we had senior management that would address that, you could get tremendous savings. I believe you could <u>cut a third out of the centre</u> and we wouldn't see any difference at the periphery. Probably see an improvement. It would force <u>streamlining of processes</u>. We've got a lot of processes, which are just - I think they're very poorly designed. ... <u>unnecessarily complex</u>. Don't make sense. They fail to understand how they don't make sense, centrally. It sort of permeates HR, finance, certainly T&E right through.</p>
65.	<p>RESPONSE: <u>corporatisation</u> **</p> <p>THIS IS A RECURRING THEME – AND SEEMS TO HAVE A PARTICULAR MEANING, AN INTERNALLY FOCUSED MEANING – ADMINISTRATION.</p> <p>CONTRAST WITH PROFESSIONAL AND BUSINESS-LIKE – PROFIT FOR BUSINESS-LIKE.</p>	<p>... . I don't have a problem with <u>corporatisation of universities</u>, if they were just good at doing it and in using it. I just see it as being <u>systematic, organised, accountable and efficient to deliver on the fundamental mission of universities</u>. Got no problem with that. It's when they just do it really badly and run round talking about learnings and a whole lot of other hideous corporate speak, with no meaning behind it and no actions.</p>

	<p>p. 130</p> <p>** CROSS SUBSIDISATION ** AN IMPORTANT MODEL</p>	<p>Well I think the - I've got no problem with cross subsidisation. I just like it to be very explicit and for those who are being cross-subsidised to know it and be making every effort. Be supported in making every effort to make enough money to support their activity.</p>
66.	<p>Driver: INTERNATIONALISATION OF THE COMMUNITY, STUDENTS or RESPONSE?</p> <p>Response to broadening funding by being entrepreneurial in pursuit of international student funding.</p> <p>Or, is this really a response too? <u>DUALITY</u></p> <p>p. 133</p>	<p>In this university the internationalisation of the community has been a huge driver of change - a positive one I think. So over the last decade the massive growth of international students on campus and the delivery of programs for them. Much more slowly, the internationalisation of research as well. ... So we had international strategy just basically driven by teaching.</p> <p>...</p> <p>Well I think there were some individuals who saw - entrepreneurial people who saw an opportunity to generate some more resources in a way which was consistent with the mission.</p>
67.	<p>Driver: technology and regulation</p> <p>Technology, a driver or enabler (and therefore part of the response)?</p> <p>p. 133-134</p> <p>↓</p>	<p>I suppose other big drivers have been in technology and in regulation. So in regulation there seems to be an increasing amount of things to respond to. AQF and TEQSA for instance and it really concerns me that we let our strategy be driven by that, rather than following a strategy and then having out of that fallout capability to respond to the regulatory structures. ... that's been a huge cultural challenge for us, so there's a real risk that we - as I said we let ourselves be driven by compliance rather than by good strategy.</p>
68.	<p>TECHNOLOGY – DRIVER OR RESPONSE – some confusion, or dual roles. Delivery of content – ‘defensive strategy’?</p> <p>p. 134</p>	<p>... but the third big driver change I think has been the technology and the way of delivering content. So it's been a challenge to us to realise that our strength is not simply in content, but the delivery of the content and the manner of its allocation. But if we don't respond to that we'll be dead meat. ... I think on technology it's defensive. I think on research - international research, I think it's defensive as well.</p>
69.	<p>RESPONSE: international market – now exposed – now More</p>	<p>So we talked about the international market and now we're also responding</p>

	<p>response than a drives. Now regulations too.</p> <p>p. 134</p> <p>Regulations are themselves a response to the growing international market.</p>	<p>- <u>that market - so what happened was we were operating a regulated domestic environment. Yes we had international students but then they surged so now we're much more exposed to the market.</u> Now the market's changing on us again because the home countries are more competitive, third countries are more competitive. So now we're responding again by trying to figure out new ways of doing things.</p> <p>... [Government policy:] Actually that's good, that's an interesting observation. So government policy might well be a response to that internationalisation of the market. So you could argue that yes those regulations are in place but they're not independent of what else you just described. Because they were the result of the government having a view that it should be maintaining a national reputation in the field and responding to fly by night operations, which is the response in many countries. That's true.</p>
70.	<p>Response: international is a response to funding</p> <p>p. 135</p> <p><u>CROSS-SUBSIDY - RESEARCH</u></p>	<p>That's always seemed to me to have been <u>a key parameter in what was driving our international strategy.</u> So essentially we get funded - we get a <u>lump of funding associated with students and out of that we have to do everything.</u> So it's always been a <u>cross subsidy sort of business model.</u> Then <u>international students gave us the opportunity to get more resources to do new things.</u> But we still don't get - apparently we still don't get <u>sufficient funding for research.</u></p>
71.	<p>RESPONSE – MODELS – CROSS-SUBSIDY</p> <p>P. 135</p>	<p>Essentially what we do is earn income on the things that people are already immediately willing to pay for and <u>we use the income we earn to invest in more fundamental activities.</u> So essentially we fund the - <u>we get money for applications and we use the income from that to fund the basic research.</u> So it's always - despite my concerns about it, it's always going to be a cross subsidy environment.</p>
72.	<p><u>BALANCE</u> & RESPONSE:</p>	<p>You could probably take your question about entrepreneurial behaviour</p>

	<p>Dynamic way in which activities are balanced so that the fundamental nature of the 'business' is in mind.</p> <p>p. 137-138</p>	<p>back to your original point as well. So <u>is that consistent with or contradictory to the fundamental - can a successful university be managed by entrepreneurs?</u></p> <p>... [Yes.] But what I'd be expecting them to do is <u>to operate in a way which reflects the - again the fundamental proposition was that those two things that distinguish a university and the way that the organisation is created to sustain them are really valuable.</u> So what the entrepreneurs are doing is essentially capturing the value of that that structure offers. As circumstances change they have to do that in different ways but it's <u>not changing the fundamental nature of the business.</u> So that would be a terrific lever of an institution who understood the fundamental values but was able to continue to redirect it or reposition it or reorganise it. In a way that succeeded in the environment, which has to keep changing because of all sorts of...</p>
73.	<p>RESPONSE –ENTREPRENEURIAL **</p> <p>- this occurs at academic-levels of the university, quarantine from centre. This is not enabled institutionally.</p> <p>- less able to manage risk centrally.</p> <p><u>Elements of BALANCING – done at the faculty-level.</u></p>	<p>... <u>we're not very good at taking risk or making</u> - generally we're not very good. So there might be individuals who are entrepreneurial but as a group we're probably - where the group as a whole is involved we're probably less entrepreneurial than...</p> <p>... As you get to <u>higher levels of aggregation I reckon that drops off.</u> So if you had an entrepreneurial indicator it would be less higher up. Because there's more people involved in the decision making and some of them are distant from the business itself. Yet their responsibilities are regulation or finance or something like that. So they don't want to have - they'll act as a break on the individual - entrepreneurship at the individual level.</p> <p>... if I can <u>quarantine an activity</u> to be totally within the faculty I can run with it. So we can, for example, we've got this institute called international trade, basically I'm responsible for it. It sits within the faculty, I can push really hard there. I can invest in it, I can put more positions into it, I can agree with the director that we're going to reorganise all the staff in it. We're going to have new areas of activity. I don't have to go check with</p>

		anyone else. But if I want to run a new program I've got to go...
74.	<p>RESPONSE: quality through accreditation. Third party such as AACSB.</p> <p>This is also something that is attractive to the market.</p> <p>p. 139</p>	<p>Well again it's supposed to an evidence of quality. So it's trying to pick up things that maybe the university systems don't do. Or it's to <u>benchmark you against these global peers</u> so that you are - it gives people a signal of your respect. ...</p> <p>... probably the AACSB as being more relevant to students. I mean I noticed some people who are members of AACSB saying now they'll <u>only have partnerships with other members of AACSB</u>.</p> <p>... However there is another explanation. The economic explanation is that it basically creates this - you try and set up a club with restricted membership. It really does have some value but the value is collected by the people who are managing the club.</p>
75.	<p>Driver: funding p. 149 – and response of more students.</p> <p>[check if already included under policy.]</p> <p>And p .150</p>	<p>Primarily funding. Money makes the world go round. That means that the national policy, as it currently stands around participation drives behaviour in a certain way. I think that a participation model is the wrong kind of model. You should be focused on outcomes rather than the inputs. But if the inputs provide the funding, then people are going to drive participation in a certain way to have lots of inputs. So it does become an interesting dilemma. If you want to achieve ambitions and be like all the other institutions and have access to revenue, you will bring in lots of students.</p> <p>...</p> <p>but I know looking locally, the <u>Commonwealth is the majority funder for the three institutions here</u>. Can we move to <u>international students who bring in fees</u>, and that's fine. That's a way for us to generate our own revenue, but we're <u>absolutely exposed to the standing of the nation, I suppose, in terms of international markets ...</u>, which again is something that the institutions can't influence at all.</p>
76.	Driver: policy – homogenous – normalisation p. 150	<u>There's a quality framework which imposes a structure of homogeneity into</u>

	[check to see if already in section on homogenous institutions.]	<p>the sector because we all have to aspire to having a certain quality framework, which in some ways takes the edges off the institutions. So you get more normalisation.</p> <p>... interesting that AQF and TEQSA have such an influence on the institution nationally, ...</p>
77.	<p>RESPONSE: diversification of income</p> <p>p. 152</p> <p>Industry?</p>	<p>It takes a brave enough institution to say no to some things, particularly when policies are structured around participation and winning ARC grants or winning linkage grants or winning the way in which the national policy piece is set up. That's where the <u>diversification of your income stream</u> comes in, so you can determine what you're going to do yourself. So the other piece is actually to identify who in industry is not shouting loudest about having a partnership and work with them, people who actually appreciate the different components of the ecosystem and where they fit into it.</p>
78.	<p>BALANCING response (across the division-faculty-level):</p> <p>Appointment of CAO, chief academic officer. Institution perspective.</p> <p>p. 156</p>	<p>If you think about the way in which the operation traditionally works, you have a deputy vice chancellor academic who has to use influence and persuasion to have the academic teaching and learning strategy of the institution brought over the line, that direct reports to a DVC are often just the portfolio and the administration component. <u>So what I did is I have the pro-vice chancellors all report to the DVC - report to the provost as the chief academic officer. Their budgets are determined through the chief academic officer. So you'll get a budget balancing across the divisional structures.</u></p> <p>So it gives you a <u>whole of institution perspective on the academic mission base</u>, whereas individually you would have four PVCs or four faculty deans and four executive deans who would each be jockeying for a position within the institution and running their own enterprises. So I see it as a harmoniser. ...</p>
79.	<p>Response: financial driver with response of increased applied research. Translation of research.</p>	<p>Financial pressure about being - the need to be more <u>relevant to the community</u>. So there's an awful lot more <u>applied research</u> than ever happened previously. Expectations that you support your own salary so I</p>

<p>p. 159-160</p> <p>Related DRIVER: translation – which also relates to the applied character of the research.</p> <p>RESPONSE: OPERATE AS A BUSINESS p. 160</p> <p>BALANCE: business with academic balance p. 161</p> <p>E.g. make selective loss for academic objective [BALANCE</p>		<p>think previously there used to be a lot of tenure for academics and they were centrally funded. In my experience at least in recent years that is now the exception rather than the norm. Because all of our <u>activity is self-funded</u>, ...</p> <p>...</p> <p>I think if we get back to this relevance the need to translate findings into policy and practice. I mean I might have a skewed view on that because that's what I'm involved in is the translation. But I don't think something like [AHTA] would have been around 15, 20 years ago. I think too for universities to be more relevant they've tried to say okay well this is - this research has application.</p> <p>Oh we're businesses. Well...</p> <p>... <u>I treat it like a business I have to</u>. I have - not ever having run a business beforehand but I treat it like a business how much money is coming in how much money is going out. Predicting for the tenders and the workups and things like that. Picking things that I know we're going to do well at.</p> <p>...</p> <p>So that's the passionate side of things. <u>But - so we are a business but we have responsibilities to an academic environment</u>. They are very hard to juggle because as I said we've got <u>two metrics</u> going here. Academics prefer how many publications you have, are you on a panel, are you - can you provide time for committee work, can you do all that stuff. At the same time we're self-funded and we're trying to run a business. So none of those activities are actually helpful for the business. ...</p>
---	--	---

	<p>example] p.162</p>	<p>... Every now and then we have a project which makes a loss and I try to minimise that as much as possible. We've never - AHTA as a whole is quite healthy. Sometimes there are projects that I do where I know there's not going to be a huge financial benefit from or I might make a loss. But there are other factors that might - that impact on the other academic side of things. So from a guideline that we wrote we knew we were going to make a loss on it - oh because there were all kerfuffles with its. But I persevered, we lost probably 20 or 30 grand but from that I've had one researcher who's been updating the searches and stuff. We've now got three papers with another three in the works.</p> <p>So I'll get six papers out of that particular project which feeds into the university academic side of things but at the detriment of the business side of things. Then I'll get another contract like the [PBAC] contract which is all critiquing submissions. None of it is publishable but it's a huge amount of money. It's three or four million, I can't remember, so that pays for that.</p> <p>... It pays for that academic activity. <u>As long as I've got that dual activity going and there's enough ...</u></p>
<p>80.</p>	<p>BALANCING: external funding and ethos, independence – 'tipping point'? Impartial? p. 163</p>	<p>Because we pay for everything that we use and we're <u>externally funded. I keep the university because of - I like the university ethos. It is an impartial, supposedly impartial, independent sector. Having said that I've had to - I got a business case approved by the vice chancellor to have us retain our logo and be kept separate seeing it perceived as separate from the university.</u></p> <p>... Because there is <u>some research going through the university that is company sponsored and what not and it's going through ARI which is where we go through. There could be perceived conflicts of interest then as us being an impartial or independent body</u> if the research that's coming through the university is - so we have a few issues there about whether the university is actually - at least in that case, <u>an independent researcher because the funding is coming from for profit.</u> It's not coming from the university.</p>

		<p>...</p> <p>So that could be a tipping point. Do you understand what I'm meaning in the future with some - if the research funding becomes more external than internal?</p> <p>... Then it will lose that perception as being an independent research. Independent research is really important at least when it comes to drugs because - it's - I wouldn't say it's better quality it's more impartial.</p>
81.	RESPONSE: funding driver, response to broaden student selection p.	<p>it seems like the <u>university is trying to get money and that's either from the open slather trying to get as many students in through as possible</u>. Or through partnerships with industry or getting industry sponsored research under the aegis of the university to be able to keep things rolling along. ...</p> <p>... I don't think necessarily that the university has been doing a good job at running the university on a <u>business model</u>. If - they should actually have <u>thought about what their strengths are which are their independence, impartiality, knowledge for knowledge sake</u> then what I would have done is probably to protect those interests and then having another sector which is all to do with the applied and that can leverage off - keep them a little bit separate. ...</p>

Theme/code (a priori/emergent)/dependencies	Interpretation/comments	Transcript/quotation
Foundation - independent: advice, direction Difference - from government, commercial Public good Funding/change - corporations, commercial entities	<p>In Australia because of the funding connection to the government, public good is provided "through the government".</p> <p>There are dependencies: funding, government and the delivery of public good.</p>	<p>One would like to think that a university differs from the commercial world or the government world - the core government world - by being somewhat independent. Hopefully independent of thought and advice and direction. Guided by the university's appreciation of what is in the public good, but nevertheless, independent of government thought or commercial thought or that sort of thing. Then everything starts getting blurry, because it's the public through the government - and increasingly through corporations and commercial entities - that actually fund the university.</p>
Foundation - independence – extent is unclear	<p>The characteristics of the university may not be black and white but a matter of degree and extent. Does this suggest a continuum, or whether these features should be viewed as a cumulative set of characteristics.</p>	<p>The first couple of sentences of what I said are sort of an ill-remembered golden age of what university may once have been like. Those days are gone. One still hopes - at least, people like I would still hope - that there is some vestige of that independence of both thought and direction, still remains. To what extent that is specious or real, I'm not sure.</p>
Foundation - independence - NOT financial gain		<p>But knowledge and research I think is now - and the means of distribution of those, even the generation of those - is now, I think, far more widely distributed than it would have been perhaps in the 1960s and '70s and my formative years. I think the universities would still lay claim to - perhaps with some justification - but once again, this goes back to independence. De novo research - research in areas where there is not necessarily an obvious immediate</p>

		financial gain.
NOT financial gain (example)	Example of 'abstract' science – but notes these are can now largely crossover – the distinction can be blurred. Also, see MB_UA comment about the important role and function of translating 'pure' science to having an application.	<p>You're not going to find, for example, too many corporations or government departments that might encourage, or at least tolerate, a philosophy department. Or a German department or a - particularly in the arts and humanity, I think, this is true. ...</p> <p>Also, to the same extent, you might not expect too many places, although there are some, that would encourage the very abstract scientific - now we're getting on very shaky ground here. What was once abstract scientific, and what may have been isolated to the universities 50 years ago, may not be the case.</p> <p>There's obviously huge crossovers with even some of the more abstract things. But I think things, like photonics and astrophysics and theoretical physics and theoretical mathematics, there would still be at least some sort of weight given towards the university being the home of those.</p>
Inter-dependencies	Academics are not perhaps suited to other types of organisations, such as government or commercial entities. [I note that there might be a growing trend towards universities appointing academics who are more suited to engaging with industry, and behaving more commercially. See the later interviewee comments about commercialisation.]	The other thing is that many of these disciplines that I'm talking about attract certain sorts of people, who might not survive in a commercial world or a government world or that sort of thing. Those sorts of people require the independence, if you like, of a university, in order to be able to flourish and do what they may do. Perhaps in a very, very narrow focus, but nevertheless, be able to do.
Change - scholarship	Example of change, continuum [or as noted before, even translation from one thing to an	It's just that what is today pure scholarship, might tomorrow be something that is very, very applied and useful. Even for things that you might not think of, like languages and stuff like that. Because

<ul style="list-style-type: none"> - applied, “useful” - “spectrum”/continuum 	<p>application].</p>	<p>from languages comes communication, and there's a whole open door there. In terms of communications, even abstruse things like codes and things like that.</p> <p>So it's very difficult - all of this thing is a bit of a blur. It's a little bit of a spectrum of things. You may think that this is now pure scholarship, but you might not think that with the retrospectoscope.</p>
<p>Values?</p> <ul style="list-style-type: none"> - independence – truth and integrity - public and society 	<p>This is not necessarily the focus for government or corporate environment. [There may be elements of this with both but perhaps not the same perceived level as with a university – a point of difference. Is this distinction becoming less clear – how is this tempered with commercialisation. There are later comments about ‘balance’.]</p>	<p>Independence and - call it what you will. Truth or integrity or some sort of notion that you're - you owe something to the public. In general, that's going to be the truth. That's not necessarily the case in government or in the corporate world or whatever. But I think universities should - and I think historically, perhaps have hopefully erred on the side of the truth. You can't say irrespective of consequences, because that's a foolish thing to say. But there's that flavour to it. One hopes that, at its best, the universities are a bastion of being relatively fearless about what they find and how they find it, and what consequences there are for society.</p>
<p>Differences (between universities)</p> <ul style="list-style-type: none"> - research/research training - older, newer universities - funding 	<p>Suggests that the main difference relates to research and is the result of funding and resources, which may be connected to the age of a university, with older universities being better funded. [This suggests some inter-dependencies between age of institution and funding. It is useful to note remarks of DL_UniSA, concerning what this would look like if we ‘normalise’ universities for differences in age. Also, I note that there is now</p>	<p>... I think there are differences, much of them historical. There's the older sandstone universities that are the so-called research-intensive universities. I would say there probably is a difference.</p> <p>... I think probably from the undergraduate student perspective, there's probably not a huge difference.</p> <p>I think where the differences lie is probably at the research and research training. I think there probably is some differences still between some of the universities that we could name, versus some of the newer universities maybe that are less well funded. Have less - have had less opportunity to have to establish a track record.</p> <p>Yeah, so in the research and research training spheres, I think there</p>

	<p>some thought that research-intensive universities have less scope to cross-subsidise research activity with teaching income, due to resource intensiveness of research.]</p>	<p>probably still are.</p>
<p>[Example] Differences – research, training, teaching. Sustainability (research): “success builds on success”</p>	<p>Suggests differences are more apparent at higher-levels of training and teaching: Masters, PhD – but might be discipline dependent.</p>	<p>Once again, the closer you get to being on the research side if you're going to do some sort of supervised research thing, perhaps even at a Masters level - certainly a PhD level - I think that you would probably start seeing some differences there. Although that as well may well be discipline-dependent.</p> <p>But in general, I think you would probably rather do a PhD or be a postdoc at a university that was known for its research. Therefore had a track record of research, and therefore had the infrastructure to support research. Therefore there are a group of other PhD or postdoctoral students around. Success builds on success, when it comes to research I think, yeah.</p>
<p>(Research-teaching nexus – research informed teaching)</p>	<p>[Example] This is more obvious say in a clinical setting – clinical research informing the clinical elements of teaching, the latter years of certain degrees. [This might be a more discipline specific example.]</p>	<p>Look, once again, this depends on where you are. So for example, in the particular case of say - and it's a very particular case - of the clinical medical years. Then it may well be that one's clinical background and the things you're interested in research will inform what you're doing. Because you're talking to the students about your work and what you're doing. So that's a particular area.</p> <p>But if you're talking about say an undergraduate science, humanities, type of situation. At the undergraduate level - leave Honours, et cetera - like I suspect that there is less of a connection than people might like to think. There'll be a syllabus, and that syllabus won't change terribly much from year to year, because you're taking kids from ground zero.</p> <p>... But - I think that that's probably somewhat overstated. By the</p>

		time you get to be supervising at maybe Honours, certainly PhD students, then I think your own research and your own interest play a very big part in what you're doing.
(Research-teaching nexus – research informed teaching)	Caveat concerning the above. [Undergraduate courses]	But the basic precepts and stuff that you're teaching is probably not going to be terribly influenced by exactly what you're doing in your research.
Differences (between universities) - research performance overall - specific disciplines	research	... in terms of the actual milieu of the university and its direction and its self-conception, I think - [unclear] which is important - then I think it comes down to the research. ... Look, as I say, from my perspective, as far as I can tell, the points of difference would be on the engagement and experience with research. That's the difference. Obviously there will be some differences between a - even an undergraduate level. Just descriptively, we have a medical school. Flinders has a medical school. University of South Australia doesn't. But - so there'll be certain interests, like we've got dentistry and nobody else does. University of South Australia has got pharmacy, et cetera, and we don't.
Differences (between universities)	[Motivation and focus is suggested as the distinguishing or unifying feature – research intensiveness in this case. So, if normalised by size, scale and age, then there are similarities between universities.]	Between our university, [the University of Adelaide] and another moderate sized sandstone university, I doubt there'd be much difference at all. Between us and the University of Western Australia or Macquarie or even Monash or something like that. There'd be differences in degree , but the motive will be about the same .
Drivers - number of students - diversity of students	Note the social implications relating to these drivers: greater community expectations of graduating with a university	I think one of the big ones would be the number of students, the diversity of students and the proportion of the citizenry that think that their students should go to a university.

	<p>- community expectations – university participation and graduate with a degree – ‘mass action’</p> <p>- international students</p> <p>- the resourcing that is need to support this - funding</p>	<p>degree. Mass migration of foreign students into what was once essentially a mono culture, and mono lingual society.</p> <p>The dimensions of these drivers are inter-dependent: increased students, foreign and domestic, require greater resources and therefore funding and at the same time they constitute a source of funding. The further question involves which of these results in a surplus/deficit, and where do the cross-subsidies sit. There have been suggestions that international students, rather than being a net deficit, subsidise both research and the teaching of domestic students.</p>	<p>The changes that accrue from the mass action of so many students - leave aside, even for the moment, the foreign students coming in, which has got its own unique opportunities and challenges. Just the number of students that now expect to come into a university and exit with a degree. That has enormous ramifications for how you teach and the sort of services that need to be provided to students. The wastage that happens. The flow-through to how does the country support such an education system - so all the funding. That's been absolutely huge.</p> <p>Then of course, there's the catering for foreign students. Once upon a time, it was a relatively small part of what the community did, and there was the Colombo Plan back in the '50s and '60s. But this is sort of like a mass migration - maybe temporary, maybe not - into the Australian system, and all the social advantages and disadvantage perhaps of that occurring. The stresses and strains upon a - what used to be a relatively monocultural, monolingual entity, such as a university, let alone society. It - well there are PhDs in that, aren't there? Many of them.</p> <p>So I think, yeah, student numbers, student mix and community expectations have been a huge driver. Huge.</p>
<p>Drivers:</p> <p>[foreign student] business</p> <p>Survival</p> <p>Cycle</p> <p>Policy - political</p>	<p>Inter-dependent: foreign/international students – a business – survival of the university.</p> <p>Other dependencies: policy of government to increase student participation – increased funding.</p>	<p>Look, I think this is a chicken and egg thing. But once again, let's leave aside the foreign student business, because that's become a business now for the university to survive. All right? Or for many universities anyway. In terms of - I think you can see how the circular argument works. A politician promises to relieve the funding burden on the student and the parent by some means or other. Therefore that will suck in people, who otherwise might not have considered a university career. Not for any intellectual reason, but maybe not.</p> <p>Then it becomes a cycle, where the politicians have got to promise more and more, so that everybody's child gets an opportunity to go</p>	

		to university. But that leads to resource needs as well, not just for the student, but for the university and for society.
Policy; public expectations	Which is the driver, policy or public expectations?	... I'm suggesting it's both. It has to be, doesn't it? You raise people's expectations - how long is a piece of string?
Drivers/responses: - following funding	Changes to funding, typically a decrease, results in a response to follow the funds, diversify funding, such as, for example, international students. These artefacts are linked, dependent.	Look, I suspect that the sorts of things we might identify at the University of Adelaide will not be much different to any other medium sized university. I think the way the universities have responded is they follow the money trail. What can you do? They've - and the way they follow the money trail is to maximise whatever you can, to get into the public purse from the government. We've all seen the game playing that occurs - look, it occurs everywhere.
Funding response: foreign/international students – welfare of students Satellite campuses	Also, note that some universities have responded by teaching 'transnational' students . That is, students abroad, through face-to-face teaching (not online). This has often been done in conjunction with partner organisations. There has been mixed success, in terms of viability and quality of teaching.	Some universities almost - well to a fault - have tried to attract foreign students . Sometimes without much thought to the welfare of those students , at least initially. [.....] hasn't been very proactive in say opening up satellite universities in other places. I think there is - there are some agreements and that sort of thing. But we haven't actually tried, I don't think, to open up separate campuses and things like that. But nevertheless, they've tried to play the foreign student type of game.
Driver and response: - commercialisation - profit (academic) - industry and engagement - knowledge and intellectual	Commercialisation (of knowledge and intellectual property) to generate a profit or surplus in relation to that activity, or to subsidise other activities. This profit or surplus is also a measure or metric doe research	The other thing - and the thing I suppose that I've come up against most of my - or some of my academic life, has been the commercialisation, the engagement with industry. Basically how does an academic make a profit? That's what it is. It's quite interesting because, once again, these things are never isolated. Even the research quantum, to a degree, is driven by that. Because we've now got ARC with their Linkage Grants. Where in the past,

	<p>property, commercialisation of</p>	<p>performance.</p> <p>It should be noted that income from international/foreign students is also applied to subsidise a range of other activities (domestic teaching and research).</p>	<p>pure or at least minimally impure research from - funded by the government. You're now being encouraged to actually do it with industry.</p> <p>I think the NH&MRC has got a similar plan that's come out as well in recent years, which I haven't got much knowledge on. But certainly Linkage Grants.</p> <p>So I think commercialisation of university intellectual property and knowledge and ability has become increasingly important. That would have been quite foreign - look, even 25 - even 20 - when I joined the university in '80 - when was - '84 or '85? There was no real thought of that. But by the early '90s, and when I set up DMAC for example, it was - and I had no pressure to set DMAC up. I just did it. But there was no doubt that that was the way the university wanted things to go, if at all possible. Because something like a DMAC or another entity that made money would help subsidise other things. That's what happens.</p>
	<p>- commercialisation (continued) - teaching</p>	<p>Pressure to ensure that teaching is profitable – this is reflected in demand for courses, and their popularity. Otherwise, there is pressure to perform revenue generating external consultancies.</p> <p>There can also be a tension to do activities whether consultancies (or otherwise), that are recognised as 'research'.</p> <p>(This pressure, as noted in the interview, also applies to academics who are undertaking</p>	<p>I think the commercialisation focus on universities has affected everyone. Whether they know it or not, and most of them know it.</p> <p>Even down to people, who do teaching rather than research, and it affects them in two ways. The first is they feel - and even people doing just pure research. Everybody feels pressure on making sure that they bring in enough money to justify their existence. Now even if you're not doing research, if you're, quote unquote, just doing teaching, then you're scared that you're - and literally you have a fear - that your courses will not be popular enough to pass muster from the DVCE. Or that you'll be looked down on because you're not bringing money in, because you're not doing the external consultancies or that sort of thing.</p> <p>[Example:] ... I had my own rule of thumb about what amount of money you were meant to bring in, depending on what level you</p>

	<p>'pure' research.)</p> <p>Example: (see in interview)</p>	<p>were at. I thought if you want to be - come in as a professor, then why aren't you bringing in a million dollars a year? I would never have thought of that in the early '90s. But by the 2000s, I was thinking okay, you're an [Ass-Pro], half a million dollars a year please. You're a professor, between half a million and a million.</p>
<p>Driver <u>or</u> response – the question concerning the role of quality</p> <ul style="list-style-type: none"> - 'circle' – bureaucracy - burden/impact 	<p>The interviewee suggests that policies such as those concerning 'quality' are more likely to have an impact on university resources rather than contributing to an actual improvement in quality. Quality is one of those things that university's must respond to with the main impact being on university resources – this researcher also contends, therefore, that this comes with a real opportunity cost to universities. This may even result in duplication: universities expending resources on what they believe is necessary to improve quality, as well as implementing government driven quality initiatives – and the two may not be the same.</p>	<p>There's this non-virtuous circle, from Canberra through the universities and funders, about - there'll be a bureaucracy in Canberra that sets up a quality thing. The universities have to respond to that. Their responses feed back into the self-regarded importance and utility of the quality bureaucracy, which - and it goes round and round and round.</p> <p>... . [But] it is a huge, a huge burden on a university and the academic - other staff at the university to fulfil those sorts of things. I just ain't sure whether the cost is worth what you get out of it.</p>
<p>Change – drivers – influences:</p> <ul style="list-style-type: none"> - accountability & transparency - balance 	<p>That is, public, local quality control measures would be desirable, according to the interviewee – achieving this with balance, without a central,</p>	<p>I'm really in favour of public accountability and transparency and that sort of thing. But at the same time, I like to see small centred, quality and oversight. So not from some bureaucracy in Canberra, so that everybody has to spend godzillions of person hours doing stuff. But there are small, open to the public, local types of quality</p>

	government imposition.	<p>control measures and that sort of thing.</p> <p>I don't know how you get that balance. But I'm pretty sure that what's happening at the moment with the central bureaucratic imposition on so many universities is - I'm pretty sure that's just not worthwhile.</p>
<ul style="list-style-type: none"> - commercialisation (continued) - public good - 'public good' research 	<p>Achieving academic/commercialisation balance. An example. The interviewee agrees that this is a balancing mechanism.</p>	<p>... it's really hard and I don't know and should - for example, should a university have entities and people, who essentially just service commercial process? Should ████ exist? Should the commercial arm of ARI exist in the university? The old fashioned me would say no, why? But the reality is that they're going to.</p> <p>I think one of the keys - at least in a small town sense, in my sense - is that the - a commercial or a commercial leaning entity in a university should also be involved in mentoring and nurturing PhD students, postdoctoral students. I would like to say that at least part of what they do ought to be for the public good research, funded by NH&MRC or whatever. Okay? I think when a university is basically just about commercial stuff, I get uncomfortable with that.</p> <p>So I don't know. It may be self-serving to say - and I'll say it anyway - part of the reason that I quite enjoyed my stay at ... university was that yeah, although we had a mix of commercial and non-commercial or semi-commercial stuff that we did, we always gave precedence to public good research and training of our PhD students. That sort of thing was really right at the very top of our agenda, right at the very top.</p>
<p>SA:</p> <ul style="list-style-type: none"> - isolated, provincial but, - national and international connections 	<p>Students tend to study locally, unlike US or English system.</p> <p>(This affects the Australian higher education market in terms of students. At least for</p>	<p>... many researchers have national and international connections, as you must - as one must have.</p> <p>... Australia doesn't have the English or even United States sort of system, where people actually expect to travel to another university. They leave home, go to another university. You tend to go to a</p>

	<p>undergraduate teaching, demand tends to be local, state-based.)</p> <p>This relative lack of mobility may also apply to post-doctoral candidates.</p>	<p>university within your - at your capital city. ...</p> <p>Even some of my own PhD students, they tend to still want to do their postdoc here in Adelaide. I try to get rid of them and say well even if you're going to stay in Adelaide, for God's sake go somewhere else, anywhere else. I always advise them that if you're on an academic route, which you probably are if you're doing a postdoc, then you need to get overseas. Preferably overseas, at least interstate experience than just staying around good old Adelaide. But there's something about - I don't know. There's something about wanting to stay with their family or whatever. There's always a reason - not an excuse. There's always a reason.</p>
<p>Change:</p> <ul style="list-style-type: none"> - funding change (driver) - students - community expectations - interaction with society 	<p>What does survival mean? What is it? – reputation, funding. This is a growing issue.</p> <p>Broader interaction with society.</p> <p>Funding stresses drive commercialisation, entrepreneurialism.</p> <p>Funding is a driver for many things.</p>	<p>... So there's a - I think with the change of funding, the change of students, the change of community expectations, I think universities themselves are a little bewildered, I think. About just what it is they're about, and how they can survive. Survival is - must be on the minds of many Vice-Chancellors, I would expect, from a reputational point of view, from a funding point of view. More than it would have been after the Second World War or that sort of thing. Universities were sandstone buildings and they just went on, didn't they?</p> <p>... - it has to be the overall change of universities from relatively at least perceived static bastions of learning and research, into places that have to interact with just about every level of society. Have incredible funding stresses placed upon them as drivers for commercialisation, entrepreneurialism - that sort of thing.</p>
<p>(value) and policy</p> <p>Political</p>	<p>There is a perceived low value attached to universities, leading to less emphasis by the government.</p> <p><u>How are universities viewed?</u></p>	<p>The State Government is going to spend \$40 million on a bridge that connects a football field to the city. I don't remember the last time the State Government threw \$40 million at say a research institute here. It's easier for an Australian government to not fund tertiary education, than it is to fund it. Except - and they do their [unclear]</p>

		<p><u>What is perceived to be their role?</u> (Much of this is indicated in the literature.)</p>	<p>much better than I do - except when it comes to ensuring Mr and Mrs Public that their little Johnny or Mary will be able to go to university. That's not quite the same as funding the conception of a university as a repository of knowledge and of development and of intellectual curiosity. That's not going to happen in Australia. It's just not.</p> <p>Australia's national parochialism, rather than just Adelaide's one, I think it's true that Australians don't value the tertiary sector as they do their sporting sector or whatever. It comes from our history and how we were settled. The sort of attitude we have towards excellence and that sort of thing. You don't see that in the United States and in many European countries. So politically, that must lead to a - less emphasis on the sorts of industry that we're in. That's a very self-serving to say, but I think it's probably true.</p>
<p>Personal profile</p>		<p>The interviewee was a medical practitioner and physician prior to becoming an academic and biostatistician. To what extent has this been formative in his views that universities comprise a goal of public good?</p>	
<p>Foundation and definition</p> <ul style="list-style-type: none"> - knowledge - development/creation - sharing (especially with students)/dissemination – educating/teaching - society 		<p>The development AND sharing of new knowledge – these are complementary and inseparable. Interviewee's perspective emphasises the importance of sharing knowledge with <u>students</u>.</p> <p>There are organisations that are not universities because:</p> <ul style="list-style-type: none"> - only focus on research and do 	<p>Well that's the tricky question in the sense that there is a sort of general understanding of universities as institutions where new knowledge is developed and where it is shared I guess with a number of publics - but the students being the primary public.</p> <p>In Australia I suppose that <u>title has been a contested</u> one because political reforms have imbued institutions which were not universities with the status of universities. So there has been a labelling of institutions that would not fit that particular description and the last 40 years I suppose has been about those universities</p>

	<p>not educate, and</p> <p>- do not distribute knowledge in the same manner as a university.</p> <p>Nor are organisations that only conduct mass education without developing knowledge.</p> <p>Summation of interviewee perspective on the university: university comprises research, knowledge creation/development, dissemination of that knowledge, including its dissemination through the education of students – <u>these elements are complementary</u>. [Interviewee concurs with this summation – adds ‘societal imperative’.</p> <p>[Note: the complementarity of these elements that make-up the university.]</p> <p>This contrasts with separate research institutes, such as CSIRO, where the object is to translate that knowledge into a product – this is not the same as ‘dissemination’. In the case of a university it could be construed that the dissemination is with a</p>	<p>who decided that their understanding required them to change and others who remained institutions that were fundamentally not about the development of new knowledge for instance but had the name university bestowed on them.</p> <p>So I think there is a fair degree of disparity in Australia specifically in relation to what an institution called university would do.</p> <p>...</p> <p>In my view fundamentally a university is about the development and the distribution of new knowledge, so these two functions are quite complementary and should not be separated.</p> <p>[.....] I can reflect on some countries where the <u>research has been taken away or put in a separate institution</u>. Those institutions are not university because they <u>focus on research and do not educate people</u>. They don't distribute knowledge in the same way.</p> <p>The question is more pertinent in my view as to what do we call <u>institutions that are educating a lot of people but not developing knowledge?</u></p> <p>...</p> <p>Yeah I think there's a strong complementarity. I think that the <u>research institute CSIRO, you know government arms, et cetera or indeed some innovative businesses where a lot of research actually occurs - you know pharmaceutical companies, electronic companies, et cetera, they do a lot of research. It doesn't make them universities because that new knowledge is contained, preserved and then translated in products or weapons or whatever it is. It's not for dissemination</u>.</p> <p>So I think that what is intrinsic to the endeavour of a university is both the <u>research and the development of new knowledge and the</u></p>
--	---	--

	<p>benefit to society in mind (or public good). <u>The distribution of knowledge is fundamental to the university.</u></p>	<p>kind of societal imperative to distribute it in [unclear] form.</p> <p>... I think universities are fundamentally about the knowledge being distributed.</p>
<p>Foundation: independence? - “academic freedom”</p>	<p>Interviewee doubts whether there is ever true ‘independence’ due to the need to fund research. So, independence</p>	<p>Oh I wouldn't think so, because I mean there is - nothing is truly independent. Some research you can't do without money. Full stop. <u>Once you need an economic, a source of economic support you're no longer independent. Whether you get it from industry, whether you get it from the taxpayer, whatever, you are then guided by an agenda that is no longer just the pure academic freedom</u> that some of our academics seem to think justifies any activity regardless of its cost. The reality is that research costs money and you need a sponsor and that sponsor is either the taxpayer, industry or some other organisation. But it won't happen for free.</p>
<p>Independence: Resources Grants Indicator – success [DRIVER AND RESPONSE:]</p>	<p>Even where limited resources are required to conduct certain types of research, the ‘system’ still measures success in terms of the inputs such as the ability to attract grant funding – income is a measure of success (whether that funding is needed to conduct the research or not).</p> <p>There are <u>inter-dependencies</u> between any perception of independence, resources and funding, and funding in itself being a measure/indicator of success.</p>	<p>Yes because you could argue that even in a so-called free research area - I'll take the example of a philosopher for instance - philosopher needs typically very little other than just sitting on the rock thinking deeply about a range of things, but that person needs <u>access to resources</u> like libraries, et cetera and importantly that person would actually in the <u>system</u> be rewarded on the capacity to <u>attract grants</u>.</p> <p>So even though that person may not need the funding, that person will be very actively seeking funding because that input has become - and I think it is a distortion of what the system should be - but that <u>income has now become an indicator of success</u>.</p> <p>So even the philosopher that would not need to do things will actually ask now for half a million dollars to go and visit people and you know have a team working on things and there is a sort of an intrinsic capacity building dimension which makes every area of</p>

<p>Differences (universities):</p> <ul style="list-style-type: none"> - homogenous - market - differentiate - political <p>(continued below – SA connection – the three universities)</p>	<p>Politically, and therefore because of the resulting system, universities are driven to be homogenous. (Also see comments from other interviewees about Australian Government legislation, and the definition of a university – this should also be compared with the State legislation that forms each university.)</p> <p>There is an interesting comment from this interviewee concerning a State merger of the SA universities, bearing in mind recent and current merger considerations.</p>	<p>research costly.</p> <p>There is a <u>political agenda</u> that seeks to <u>homogenise</u> and I think there is a - as the market matures if you like, there is a definite need for universities to differentiate.</p> <p>So there is tension there and you know you've got a microcosm of that in South Australia where you know the political will continues to circle around the notion of this mythical <u>merger</u> when <u>it would be to the absolute detriment of both the State but also the three universities if any such thing were to happen.</u></p>
<p>Differences and South Australia</p>	<p>Highlights some differences between the 3 SA universities.</p>	<p>Well I think in many ways the <u>University of Adelaide will continue to be what I consider the true university.</u> I think the <u>University of South Australia has the potential of carving a very successful positioning in the more vocational sort of element; much more industry linked,</u> you know people who are in some ways - not so much job ready, because we aspire to have graduates who are job ready - but very much reflecting employers demand I guess in the short-term</p> <p><u>Flinders</u> is in many ways much more like us. I mean it is an offshoot of the University of Adelaide, but it is almost a sort of <u>regional - its appeal is geographical.</u> It services southern market, with a reasonably wide range of programs. Research wise it's only the medical side there really; very little else that they do. Eighty per</p>

		<p>cent possibly of their research is all medical related. So they are a more - in teaching they are diversified but I think in terms of research they're very focused and very single purposed.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - growth agenda – international students - competition (Asia) 	<p>Government focus on universities as an export business, rather than as an important investment in human capital and capacity building. No added value.</p>	<p><u>Well it's been the agenda for growth and particularly the international student growth.</u> I think there has been again damage coming from a public or government narrative that built up the sector as an export earner which I think is a despicable turn of phrase and I think it will put Australia to great shame in due course.</p> <p>I personally predict that in five to 10 years the very very substantial <u>investment of Asian countries into their university system</u> - because they understand that investing in human capital is the most clever investment you can make - I predict that <u>they will have better institutions and that you know Australian students will be sent to Asian universities in order to get world-class education</u> and this will all be as a result of a government in <u>Australia that is so short-sighted as to see the sector as an export earner.</u> I mean in some ways this is as short-sighted and ultimately counterproductive as the notion of digging stuff from the ground, exporting it without the realisation that then you've got nothing left. So if you don't add value locally you lose the plot.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - government policy - funding - international students/exports - investment (lack of) 	<p>Enquires about any connection between government funding policy and exports/international students.</p> <p>Poor investment and funding has resulted in a dependence on international student growth – inter-dependent.</p>	<p><u>I think that they're the two sides on the same coin. It is because governments were not willing to invest properly in tertiary education that the universities have had no other choice than to seek international students</u> and then that has created the realisation that far from requiring you know further investment you could actually now <u>milk a sector which you had starved of funds.</u></p> <p>So it's a double whammy if anything, but it is all the same cause. The root cause is <u>a complete ignorance by the government of the long-term benefit of investing in a tertiary education system.</u> You know I put that down to the electoral cycle.</p>

<p>Change:</p> <ul style="list-style-type: none"> - technology - pedagogy - growth (driver) -logistics/infrastructure 	<p>Growth has in turn been a driver or catalyst for using technology, changes to pedagogy, and an increasing need to improve infrastructure management (including logisitics).</p> <p>New skills to manage this growth.</p>	<p>... that that <u>growth has required universities to deal with a whole range of things that were not at the forefront</u>. So I mean <u>technology has been a big element</u>. But you wouldn't need technology if you didn't grow in the way that you did, so technology is part of the response to growth, but it has also become <u>a catalyst for change in the pedagogy that we apply</u>.</p> <p>But likewise, you know the <u>need for the logistics, the management of infrastructure</u>, all of these things are things that are new talent, new skill sets required of universities that are the <u>immediate consequence of the growth experienced</u>.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - funding (lack of, inadequate) - cross-subsidies - budget model - business model - growth – students - pressure – infrastructure - social engineering; government; policy - social engineering: more students and graduates is more educations which is better 	<p>The linkages between each of these elements could be graphically represented, indicating which are drivers for a series of responses. For example, inadequate funding has a number of consequences – such as increased research activity is therefore cross-subsidised by increased students and teaching revenue. That is the budget/business model. This is affected by the policy proposition that more students equates to more education, which in itself is assumed to be better – this at the same time provides additional pressure on resources. The more education proposition is a form of social engineering.</p>	<p>No, there have been two things. There has been that - well growth has been mandated by the <u>inadequate funding of research</u>. I mean we've got an absolutely <u>fatal budget model</u>. <u>The more successful we are at research the more we have to teach, because one area of the business returns revenue and the other one doesn't</u>. So it's a completely schizophrenic situation with funding. The more successful research universities have been led to <u>boost their numbers</u> way beyond what would have been reasonable and then had to cope with the <u>pressure on infrastructure</u> and everything else beside.</p> <p>So that certainly - that <u>growth agenda has been you know partly based on the business model as actually there has been a fair amount of social engineering and government input</u>. So it's hard to say whether it's an ideology of government or whether this is kind of you know altruism or whatever, but governments have been really prepared to buy the <u>argument that the more educated the better</u> and they have I think foolishly equated more educated with <u>percentage of the population with a degree</u>. I would probably contend - probably provocatively - to say that we have a less educated population with the number of students who now graduate because we have qualified, not educated, graduates, and</p>

<p>- gross national product – productivity: increase students; educated population</p>	<p>Government proposition that increasing the number of graduates will increase gross national productivity, growing the economy.</p>	<p>that's very different. ... But definitely it's social engineering. So we've got <u>productivity report</u> that shows that the national - <u>gross national product increase</u> was productivity increase that comes with you know a person - I mean the economy staff had a field day at demonstrating the benefits of a greater <u>take-up of higher education by population</u> and so there has been that kind of blind, yep let's get you know 40 per cent of our people aged between you know et cetera.</p>
<p>Driver or response: quality</p>	<p>Is teaching quality of teaching an attractor of students?</p>	<p>There is no homogenise answer there. I mean I have to say for those universities like Central Queensland that actually have a business model on teaching more, very little research, quality of teaching has been defined as something that would attract more students to come and we give them a degree. I have yet to see validation that those people are better educated for it, but there are more of them.</p>
<p>Drivers and responses: - agenda - strategy - 'respect'</p>	<p>There is no strategic thinking by universities in terms of shaping the higher education agenda and policy – this is affected by the relative lack of respect for universities and intellectual activity, low political value attached to universities – there are no or few votes in universities. [Is this a circular proposition? As universities are regarded as having little political significance, as represented by votes, the agenda is difficult to shape or influence.]</p>	<p>Well I think the <u>university on the whole have lacked strategic thinking</u>. They have been <u>passive beneficiaries or victims</u>, depending on how you see the government of the day, but we have been on the receiving end one way or the other and we haven't exactly shaped the agenda I think. So whether it's a reflection of our lobbying skills or whether this is actually - and sometimes I am prone to believe that there is, in Australia specifically, an underlying <u>lack of respect for universities and things intellectual that is actually costing us</u> dearly in that, you know we're not funded appropriately, we are milked of the revenue we generate, we are first to get cut, and really there's <u>no votes in universities</u>. So you could actually tamper with universities much more so than you could with school or dare I say the local football team. There is just not that degree of pride or social engagement in higher education that would make the sector an important</p>

		stakeholder. So we get to be kicked around and...
South Australia	<p>Low staff and student mobility.</p> <p>Stagnant state population – limits growth.</p> <p>But, research is a global activity, not location dependent – location can however make it difficult to attract staff because of distance and relative remoteness.</p>	<p>Yeah, yeah there is a challenge to the fact that our <u>population is stagnant</u>. We certainly cannot expect quality growth, so that means we'd probably, for us, decide not to grow. The other universities have decided to grow which means they will enrol students who either will not do well or should not be in a university, but that's their choice; and this is a choice we make not to do that.</p> <p>... It is another cause of <u>calcification and that applies both for our students and our staff</u> by the way. We have one of the <u>most permanent staff profile</u>. They just don't go anywhere and as a result they are incredibly hard to shift in terms of change, because they are people who just have never been anywhere else. So our capacity for change is not that great I've got to say.</p> <p>No, well look I think we've got a <u>fundamental - research is a very global activity so it doesn't really matter where you are</u>. We have areas of obvious focus like wine and you know arid agriculture or whatever it may be that is a result of our location on the globe, but fundamentally there's no restriction on what research we could do.</p> <p>We are - we <u>suffer from our location in trying to attract people</u> because it is a long way away and it is in the middle of nowhere, so that makes it hard to attract the best in the world. As I said, people never go anywhere so we do have an issue of you know people are only at their peak for a restricted amount of time, and so our capacity to keep a stream of research alive and rich is maybe not as great as if we were in a bigger cosmopolitan city.</p>
Profile (personal): - market (importance) – marketing background	<p>Marketing background is influential in understanding psychology of the marketplace.</p> <p>An appropriate background.</p>	<p>Well I mean I like to think that the fact that I'm from the marketing background is actually eminently relevant as a skill set. I think universities for a long time have been quite isolated from <u>the reality of the marketplace</u>. They don't understand that students base their judgement on perception as much as reality. They don't really</p>

	<p>Past foreign student – a product of a global education with that understanding.</p> <p>Query about students as customers and consumers. <u>Interviewees notable reply: our students/graduates are the product (not our degrees) – this contributes to the quality of the future citizens. The product as much as our research.</u></p>	<p><u>understand the psychology even of the marketplace</u> and I think a marketing background is eminently suitable and relevant for managing universities into the future.</p> <p>Well I mean I like to think that the fact that I'm from the marketing background is actually eminently relevant as a skill set. I think universities for a long time have been quite isolated from the reality of the marketplace. They don't understand that students base their judgement on perception as much as reality. They don't really understand the psychology even of the marketplace and I think a marketing background is eminently suitable and relevant for managing universities into the future.</p> <p>My background as a past foreign student, so I think the personal experience of that is relevant. So you know beyond the qualification and the professional experience, the simple fact that I was and I am the product of a global education I think is absolutely relevant.</p> <p>Yeah and I think that's a problem because <u>I think our students are not so much of consumers as they are a product, and they don't see it that way because they feel they're paying and to some degree they are contributing to the cost of their education, but only to some extent. So I think it's quite important that we keep the perspective that our graduates are our product, as much as the research we develop, also develop future citizens and you would think that a government would be willing to pay for that - for the quality of the future citizens.</u></p>
<p>Foundation:</p> <ul style="list-style-type: none"> - knowledge and discovery - company of scholars - professoriate - Humboldt not Newman 	<p>University is underpinned by Humboldt's vision with little change – foundations are knowledge and company of 'scholars' not a board of management, nor top down</p>	<p><u>Cardinal Newman's idea of university</u> is often cited as some major source of inspiration for the modern university. Problem is, though – well, firstly, Cardinal Newman was a very poor vice-chancellor at the beginning. He was vice-chancellor in Dublin and it only lasted about three years. He didn't do the job well. So, I always had problems taking advice about leading universities from someone who wasn't a good leader. But the thing is, that work – it's one chapter of that</p>

<ul style="list-style-type: none"> - secular university - modern university 	<p>hierarchy.</p> <p>Sets aside Newman as being a religious work, for the education of Catholics.</p>	<p>work that is usually quoted. It is, of course, largely a <u>religious work</u>. <u>It's directed at the education of Catholics.</u></p> <p>The great majority of the book is really <u>not very appropriate at all to the bulk of modern secular universities</u>. I haven't – I mean, his views fit into the Oxford movement and so on, from which he came. But really, for me, the <u>inspiration of universities is the ideas of Humboldt, Wilhelm von Humboldt</u>, not Cardinal Newman, which is why, when I refer to history, I go back to the early 19th century and the little tract that Humboldt wrote. Of course, what arose from that – which, unlike Newman, who didn't really create a line of universities. I mean, <u>Humboldt's vision then became the inspiration for the general research university, and then the influence elsewhere.</u></p> <p>But I mean, in direct answer to your question, I mean, I think there's a number of differences. One is the antiquity of <u>the university model, which has scarcely changed for a thousand years. The organisation of universities now differs very, very little from those of the 12th century fundamentally, which is the notion of a company of scholars. So, where the power really – the power really is in the professoriate.</u> The power is not really in the board of management, so it's <u>not really a top-down organisation, because the essential commodity is the knowledge and the discovery, and that doesn't emanate from the board of management.</u></p>
<p>University distinguished from other organisations – difference</p> <ul style="list-style-type: none"> - company of scholars - pursuit of knowledge - (campus experience) 	<p>Query – different from other knowledge organisations.</p> <p>Other organisations take the teaching function only, commercially – without a company of scholars. (Presumably for profit – most Australian universities are not for</p>	<p>Well, what's happening at the moment is, of course, interesting, because the university model is being disaggregated, and you've got other providers now who are picking up pieces of it. So, you've got private organisations who are taking on teaching functions in particular areas and offering them commercially, and in some cases, doing a more professional and more efficient job than universities. But the thing is, they're not – by and large, they're not emulating the company of scholars. ...</p>

	profit.)	Which is the whole – well, what we would call, I suppose, the <u>campus experience</u> ; a group of people who come together, who <u>basically – who ideally live together, and who, for three or four years, share a life in pursuit of knowledge</u> . In Australia, of course, we have a rather pale version of that, because by and large, our universities are non-residential. In Britain and in the US, things are different, of course, where you've still really got residency requirements and much more of that line.
	Applied knowledge for commercialisation is quite recent – traditionally, knowledge in its own right. Applied faculties are quite recent, 1870s.	Well, traditionally, it's been knowledge in its own right. <u>The idea of applied knowledge and knowledge with commercial applications is actually pretty recent in universities</u> . The first universities in Britain to have any applied faculties are in the 1870s, and it's still – even Oxford and Cambridge, they're – I mean, take a discipline like engineering. Engineering still doesn't exist in some of the oldest universities, because of the fact that they didn't see themselves as preparing that kind of graduate.
Differences (between universities) and - mission Foundation and definition - Dawkins reforms – definition; unified <u>national system</u> - homogenous - policy	Very few differences between Australian universities, whereas US universities are diverse – teaching only through to research intensive (with little interest in teaching). Teaching is the traditional university model (600 years). Humboldt brought together scientific academies into universities – started to become places of research. Company of scholars was about teaching.	Yes. <u>[Differences are h]arder to see them in this country, though. But I mean, in the US, you've got universities that – the missions of universities in the US ranges all the way from teaching-only universities, which is the traditional university model, of course, through to research-intensive, where there is very little interest in teaching</u> . But then a whole lot of other missions as well – you've got some universities who are entirely focused on the needs of their own region, and inasmuch as research is done ... You've got a variety of missions. Now, the problem – and as I say, it's the teaching-only. Nearly half the universities in the US <u>are teaching-only</u> . That is, of course, the traditional university model, because prior to Humboldt, the previous 600 years of university history, the focus was on teaching. It wasn't on research. I mean, <u>Humboldt's achievement was to bring what happened in the scientific academies into universities</u> so that universities started to become

		<p>Dawkins reforms – narrow definition of a university, unified national system. [**Add and contrast with literature on Dawkins (and Vanstone) reforms and policies.**]</p> <p>■ observes that Dawkins created 39 institutions all having to do research.</p>	<p>research places as well. But of course, traditionally, they're not. The company of scholars was about teaching.</p> <p><u>But the problem in Australia is that, since the Dawkins reforms, the definition of Australia is very narrow. Dawkins talked about the unified national system, and of course, what he did was take a whole lot of different institutions ranging all the way from research universities through to performing arts schools that had no research at all, and bung them all together and call them all universities, and insist that the definition of university was research. So, then you have this situation where you've got 39 institutions in this country all being called universities, all really forced to feature research, even though quite a number of them have no great roots in research and probably would be better off not doing it. [This is an important observation.]</u></p>
		<p>System comprising homogenous universities, post Dawkins reforms.</p> <p>WB suggests that Dawkins reforms are the result of a rapid increase or 'explosion' in demand for university places. [**Also, see H Forsyth, in the literature – book and journal article. **]</p> <p>Example of negative impact of this. E.g. practising professions suddenly had to do research.</p>	<p>Yes. I think it's been very sub-optimal in Australia, and it's gone on so long that people here think this happens everywhere in the world. I mean, it doesn't. There are very few countries that did that, and it was a <u>response to the explosion of demand. By the post-war baby boom, by the 1960s, there was a huge explosion of demand for university places. Universities couldn't meet all the places. The response in Australia was simply to grab a whole lot of things that weren't universities, call them universities, and somehow massify the places. But the trouble was, it didn't really multiply traditional university teaching in this country.</u></p> <p><u>All it did was force the name and the practice of a university onto – I mean, because I lived through some of the worst examples of this. Like the Victorian College of the Arts in Melbourne, we had dancers and musicians who were engaged because of their distinction in their art form, and who were there to teach their art form, suddenly being told that now they're in a university, and instead of practising the violin, they've got to write articles about the science of the violin</u></p>

		<p>bow and turn themselves into researchers, because now they're in a university. Now, I mean, that actually pulled some very good people out of practising their profession. That was not good for that college, and that was replicated all over the country.</p>
<p>Adelaide – University of Adelaide = an example of the <u>evolution of the university</u></p>	<p>University of Adelaide: originally a teaching-only institution. PhDs awarded in 1950s. Early admission of women before Melbourne and Sydney – the first university to do so in English speaking world. Innovation – curriculum reforms too. Early Nobel prize winners, and seminal texts and research. Expansion of subjects beyond classics.</p>	<p>Well, this is, of course, one of the original universities. This is the third oldest in the country. When this university began, like Oxford and Cambridge, it was <u>a teaching-only institution. It didn't get a PhD until the 1950s. So, research didn't come into this university until post-World War Two.</u> It's got a deep origin as a traditional university, and I think – but the plus of, of course, the founder here, who had – Short, Augustus Short, who had a very distinctive vision. I mean, he taught at Oxford.</p> <p>But he wanted a university that wasn't like Oxford in certain particular respects, and hence the <u>admission of women early on</u>, and the <u>expansion of the subjects</u> beyond the classics. So, yes, this university has great claim to the great university tradition, because that's how it began – but also claim to certain kinds <u>of innovation</u>, because it really was, when it was founded, at the forefront of universities in this country in a number of its <u>curriculum reforms</u> and in its scholarly makeup. I mean, women were still observers at the Universities of Sydney and Melbourne for 30 years after they were doing degrees here. So, it really was quite unique at the time.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - research competition - rankings - economic imperative – mass international/foreign student recruitment (Asia) -subsidisation of domestic 	<p>Recent. Focus on research performance and rankings.</p> <p>Economic policies are driving pursuit of international students (particularly from Asia) – domestic students are being subsidised by international students.</p>	<p>Well, in this country, overwhelmingly, the pressure has been the <u>research arms race</u>, I would call it. The fascination <u>with international league tables and ranking systems</u>, and the determination to have a few universities in the country that competed on the international stage - but then the other thing, of course, has been the <u>economic imperative, which drove Australian universities in the '90s into mass recruitment in Asia.</u></p>

<p>students by international students</p> <p>- international competition – other universities</p>	<p>Growing investment by Asian governments in universities, so growing competition from them. [This also suggests the high value that they place on universities – contrast that with observations by]</p> <p>[China:] Investment in universities – affinity with the Australian universities – good rankings – American model has large endowments. Economic power of China – in the future Chinese students will attend Chinese universities. Competition.</p>	<p>██████████</p> <p>Now, to listen to the national debate on education, you wouldn't get any hint that that was the case. Australia has managed to get other people to pay for its own education for a long time, and any thought of the increase of fees or any further impost on the Australian taxpayer seems to be an anathema. ██████████</p> <p>██████████</p> <p>It won't go on, because of the fact that most of the countries from which the largest numbers came from are now getting woken up to what's going on, and are developing their own universities, first-rate universities. I mean, ████████ in Singapore is, in many fields, a better university than any university in this country. It's a better ranked university, and it won't be the only one. It's the same in Hong Kong. Malaysia, although they don't yet have a university to compete, they have a higher education policy that's trying to lift the whole thing there.</p> <p>Well, it's interesting, because I know most of the vice-chancellors in the China nine, and we've talked about this quite a bit. They, of course, for a long time, they were forced to follow a Russian model. When they escaped from the Russian model, they thought that they should start imitating the American model, and put a lot of time and effort into Americanising what they were doing, until they realised that the great universities in America are the ones with billion dollar endowments, which is not the position they were in. <u>So, they've now become very interested in Australia and Australian universities. Firstly, the Australian universities are all better ranked than their own universities.</u></p> <p><u>They feel that we are Western universities, but with one foot in Asia.</u></p>
---	--	--

			<p>We don't have the mega-dollars the Americans have, so they feel there's a great affinity with what they're trying to do. Now, the Chinese universities are improving day by day. I mean, it's astonishing, how quickly things go. But it's going to be quite some time yet before they have universities that are better ranked than in Australia, and I think this is why we managed – the Group of Eight, anyway – have managed to have such excellent in-roads in China, because there's high interest.</p> <p>See, [REDACTED] [REDACTED] China nine at their annual conference. This is a measure of their interest. They think that they can learn from what we're doing. So, it's quite interesting situation, but again, it won't go on forever. There's such economic power in China that, pretty soon, they'll catch and then pass where we are, and then there won't be Chinese students coming here.</p>
	<p>Responses and <u>balance</u>:</p> <ul style="list-style-type: none"> - poor balance - focus on research and research income - neglect of teaching - American competition - Australian 'mass' education is a weakness 	<p>Poor response – focus on research and research income; some neglect of teaching – poor student satisfaction – will impact international students.</p> <p>Emerging competition from US/American universities – many don't have 'mass' teaching experience like Australia. [REDACTED]: therefore Australia should focus on small group learning to better compete.]</p>	<p>Yes. Well, I don't think we have responded in a very balanced way. I think Australian universities, by and large, still think that research ranking and research dollars are the answer. You've certainly got some Australian universities who neglect teaching while they throw their resources at research. I think it's short-sighted. There's – it was fine in the '90s, when we had all of these foreign students coming here wide-eyed about a Western experience. Now, of course, there's a whole generation who have gone home, many of whom didn't have a very good experience in Australia.</p> <p>The overall satisfaction – in surveys, the overall satisfaction of foreign students with Australian universities is about 32 per cent. So, it's not impressive. Now, Australian universities continue to neglect teaching; then that isn't going to change. Meanwhile, American universities have now woken up to the financial power of having lots</p>

		<p>of foreign students, so they're in Asia competing. In places where us and the UK were completely dominant, you've now got major American universities competing.</p> <p>Some of them are – because what happened here never happened in America, so we don't have – many American universities still have small classes, traditional tutorials. They don't have this mass, [immersing] experience that Australia is offering foreign students. So, I think - this is a reason in our own strategic plan we focused on small group learning and so on, because I think, in five years from now, we might be in a position that's quite distinct from a number of other Australian universities, and we'll be in a position to better compete with the Americans.</p>
South Australia:	<p>Clean; safe</p> <p>Like many great universities in the USA (e.g. Princeton, Yale, Cornell), UA is situated like a university town.</p>	<p>... they find South Australia a really very attractive destination. I remember the President of Shanghai Zhongtong said to me, our students, we think your university most beautiful in the world. I thought, what? But then you look at Shanghai; it's polluted, it's crowded, and they come here and they don't even think they're in a city. <u>Everything is so close</u>, it's safe, there's no traffic jams – well, what we call a traffic jam doesn't even rank. So, they think they're in paradise, and so it's very attractive as a destination, and the climate is so mild.</p> <p><u>Safety is the thing they mention more than anything else</u>, more so than – because Melbourne and Sydney both have bad publicity about violence against Indian students, and there wasn't here. So, it's got a very good image as a tiny little – because the thing is, if they go to <u>great American universities, they're not usually going to big cities like Sydney or Melbourne</u>. I mean, if they go to Princeton, it's in a little town. Cornell, Yale, these are – <u>University of Illinois, these are places in small country towns, which is a bit more like the situation here. It's a university town experience</u>. Whereas, Sydney and Melbourne just offers the metropolis, which in many cases is</p>

		what they've just left. So, it's – I think...
Profile (personal):	Definition of the university is grounded on a detailed interest and understanding of the history and development of the university – linked to the interviewee's humanities interest. [It is useful to contrast this with AP_FU perspectives and approach as a political scientist, and PQ_UA as a marketer/marketing academic.]	... , I'm from the <u>humanities</u> , so obviously I've got a natural interest in <u>the history of universities</u> . For this university, it's the first time in a very long time they've had a Vice-Chancellor who is a <u>humanist</u> . Most of this university's vice-chancellors have been scientist. My predecessor was a scientist, and his predecessor was a scientist. So, it's a long time since they've had anyone who's interested in history.
Foundation and definition – activities: - teaching/learning - research - knowledge creation/production - not-for-profit - public good	<u>Cumulative elements</u> comprising a university: teaching and learning; research and production of knowledge; dissemination (and sharing of knowledge), in a context of public good. RM further suggests that commercial activity does not constitute 'sharing' (unlike not-for-profit). [University can engage in commercial activity but its focus must be not-for-profit.] [Example:] see publishing.	... Well it is the combination of the core activities that we engage in, one of which is <u>teaching</u> and the other - well teaching, learning and the dissemination of knowledge and the other is research and therefore the production of knowledge . I think also, the context in which we do these things, which is essentially a context of public good It is a not-for-profit activity, so therefore it's <u>not an essentially commercial activity</u> . Knowledge ought to be - what's the technical term for those things where the fact that you've got it does not disadvantage anyone else having it? ... It is a not-for-profit activity, so therefore it's not an essentially commercial activity. Knowledge ought to be - what's the technical term for those things where the fact that you've got it does not disadvantage anyone else having it? [Example:] ... I think there is a component in what we do that we produce things and we give them away. That on the whole, is for example, literally true of most of our engagements with commercial

		publishing.
<p>Differences (from other organisations by implication – different outputs)</p> <ul style="list-style-type: none"> - training & information - (contrast with) teaching & knowledge 	<p>Distinguishes universities from other organisations: information from knowledge, producing knowledge; training and teaching (presumably, educating too). Teaching versus training, also produces both knowledge and intellectual capacity.</p>	<p>Well I think teaching is different from <u>training and knowledge is different from information</u>. I think there's a hierarchy - and this is obviously not in any sense original - from data, to information, to knowledge. The <u>production of knowledge</u>, whether it's original knowledge or just regular, everyday knowledge, involves not simply the acquisition of information but also the development of the capacity to combine, manipulate, integrate, process information so that it becomes something larger and more complex than it began. That's the process of producing knowledge.</p> <p>I think that as a research activity it's fairly clear how that works, whether you're a historian dealing with primary documents which you take a collection of primary documents which are your information sources and by what you do with them, by how you interpret them and how you reorganise them and how you put them together, you generate knowledge. There are scientific equivalents of those kinds of processes.</p> <p>But <u>teaching, I think, is different from training in that teaching also produces knowledge because teaching combines the development of the intellectual capacities to do those processes with the development of the ability to source the information</u>. I think that's mostly what we do. It would be pretty to think that that's what we do when we teach. Whereas training is a more uni-dimensional activity at whatever level you're doing it, even at reasonably complex levels where you are training in advanced skills. You're still essentially - it's a uni-dimensional activity.</p>
<p>Differences:</p> <ul style="list-style-type: none"> - resources and assets (therefore, capacity) 	<p>Wealth, or resources and assets enabling different foci is perhaps circular – it could be said that the pursuit of certain foci requires</p>	<p>Oh, some universities are richer than others, some universities own large parts of inner cities and others don't. That produces different capacities, different resource levels and that allows for different foci on different activities. There's a hierarchy in the system. The</p>

<p>- institution focus</p>	<p>certain resources or creates the capacity to acquire those resources – dependencies.</p> <p>[How might this be visualised? – feedback loop in some manner?]</p>	<p>hierarchy is never going to go away and pretending it's not there is not...</p>
<p>Differences:</p> <ul style="list-style-type: none"> - hierarchy; status; system - value - ranking; research - inter-dependent; self-perpetuating 	<p>The interviewee indicates that the 'system' is self-perpetuating in terms of ranking (which is a function of research performance) leads to a greater ability to attract resources. This also has a connection to degrees, where degrees from one institution are regarded as being more valuable from degrees from another university. Also suggests that the age of an institution relates to status, and so on.</p> <p>The system entrenches these features of status, ranking, and resources, and perceived value.</p> <p>[This might also be visualised as dependent 'loops'.]</p> <p>In terms of research contribution, there are a number of inter-dependences that might be represented or visualised as feedback loops.</p>	<p>I think they're interdependent. [That is, hierarchy and class and material resource differences.] My fatuous answer is we could not bother with exercises like [ERA], we could just do it by the age of the buildings. In both the systems in which I've worked, there are clear - well if we put the word class on hold for a while and just think about status, there is a clear status hierarchy. <u>A degree from Institution X is inherently understood to be more valuable than a degree from Institution Y.</u> That is generally presented as having to do with the quality of the institution in some sense.</p> <p>We now have all these <u>ranking systems which actually really only rank research.</u> They really only rank research output according to metrics devised and maintained by commercial institutions who have sold us this particular bag of goods. Essentially what that does is it reproduces an established status system. ...</p> <p>Then the <u>system is self-perpetuating because the entrenched universities</u> - the entrenched high-status institutions go, there, you see? We were right all along. To the extent that the status conferred by these <u>rankings results in attracting greater shares of the resources,</u> then the system is self-perpetuating. Of course the institutions that do well out of these systems wish to preserve them. The institutions that don't particularly do well out of them generally don't seem to have much of a voice in it, because the response is, well of course you'd say that, wouldn't you?</p>
<p>Foundations:</p>	<p>Orientation and foundations</p>	<p>Well although from the kinds of things we were talking about at the</p>

	<p>[AND RESPONSE – NOW A BUSINESS]</p> <p>Drivers: [resulting in significant changes]</p> <ul style="list-style-type: none"> - tension - 'class' - mobility; competition 	<p>remain public good and non-commercial but at the same time running a business.</p> <p>There is a 'class' structure amongst universities. But there is now more competition, and mobility between these classes. For example, is GO8 universities now more like GO4 universities, with greater competition amongst the rest.</p> <p>[INTERPRETATION: <u>This highlights the point concerning increasing competition but raises a contradiction between the extent to which the system (including rankings) reinforces a hierarchy amongst universities or whether increasing competition is eroding this hierarchy. It would be useful to look at a range of ways in which the position of universities may have shifted. As some interviewees have suggested, there is less different between universities when their relative positions are normalised by age of institution. Is this a realistic comparison bearing in mind that</u></p>	<p>beginning, <u>our basic orientation and foundational values are, I think, around public good and non-commercial</u>. We honour businesses. I'm not sure when this university became a business. I'm not sure to what extent it was a business when I got here 16 years ago but it's sure as hell a <u>business now</u>.</p> <p>On the whole, I think I'd say it's gradual. In a way, I'm going back to the status thing. I think there's this interesting <u>tension which maybe relates to class</u>. Twenty years ago, I think probably in the Australian system there were three tiers of institutions and they all knew their place. So there was a class system - there was an upper class, a middle class and a lower class. It's not quite the - wherever it was from - That Was The Day - That Was The Week That Was - that sketch with John Cleese and Ronnie Barker about the class system. But there was a <u>class system</u> and as I say, I think to an extent, everyone knew their place.</p> <p>To a degree, that <u>system has dissolved</u>. There has been more <u>movement and the movement has manifested itself as a form of competition among the institutions</u> in a way that I think did not exist in the same sense. There's the claim for a kind of class mobility, if you like, among institutions now that is probably greater than once there was. Is the Go8 really eight or is there really a Go4?</p> <p>... [COMPETITION:] ... it is significantly driven by the <u>expansion of the system</u>. So that creates opportunities. Opportunities lead to opportunism. Vice-Chancellors being what they are, they're mostly opportunists. So there are elements of that. <u>There is an increasing level of competition which is as it were marked by rankings</u>. Therefore there is - you know, these kinds of changes are status - so there is less status in being a good community teaching institution. ERA, I think, is again typical in its language. It is all about world standard. So we are in a sense in competition with the rest of the</p>
--	---	---	---

	<p><u>a number of these institutions/universities are not 'new' but more recently became universities.]</u></p> <p>There has been an expansion of the system. I take that to be indicated by the 'creation' of more universities – See Dawkins reforms and to some extent Vanstone – more universities, and as noted by some commentators, the creation of a market. A further point to this is the rankings. [It is useful to note that there are official rankings such as ERA, in terms of degrees, QILT, and perhaps de facto rankings, such as the Good Universities Guide.</p> <p>I believe that universities also seek to reinforce these sorts of rankings through their membership of discipline specific 'clubs' – for 'business', AACSB and EQUIS. This is different from accrediting bodies such as those that relate to law and engineering degrees, and to some extent CA and CPA for accountancy.</p>	<p>world.</p> <p>Now the relevance of being in competition with the rest of the world - the relevance of that to delivering a good undergraduate education to the aged cohort of the southern suburbs, seems to me to be a bit limited. But it's nevertheless the framework in which we operate.</p>
--	--	--

	<p>Competition now of course extends to global competition – e.g. international students, and online course delivery.</p>	
<p>Drivers & responses:</p> <ul style="list-style-type: none"> - increased competition - continual growth - business-led decisions 	<p>Driven to compete – resulting in constant expansion and growth. Inter-dependent. [Surely, this is co-dependent with funding too – noted by other interviewees. INTERPRETATION: many of the inferences from interviews should be read in a cumulative way to bring out the dependencies amongst the artefacts that are being described.]</p>	<p>Well one of them is that we are much <u>more competitive</u>. We compete over everything. In this local context, we compete much more than we collaborate and that seems to me to be inherently wasteful as well as silly. We understand that we have to be <u>continually expanding, so we at some level have bought into the capitalist logic of infinite growth</u>. ...</p> <p>The need to grow of course breeds the need to compete. I think we are much more - in one sense I think I spend <u>a great deal more time thinking about money than my predecessors may have done</u>. I don't think that's just the way I do the job, I think that's...</p> <p>Partly because of the financial environment in which we operate, I think we have to make more business-led decisions than perhaps our predecessors had to.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - funding – government funding - diversify funding - competition - entrepreneurial - accountable; compliance <p>Tension between values and drivers - commercial</p>	<p>One response is a driver for another action – they are co-dependent. For example, as follows, in order:</p> <p style="padding-left: 40px;">Government funding – reduction – increase non-government sources of funding/diversify – pursue commercial sources of funding – achieve this through <u>entrepreneurial</u> activity</p>	<p>Clearly <u>the government funding environment</u> is a major controlling factor. I suppose one of the things, though, that has changed and has made us <u>more like businesses</u> is that <u>government funding forms a smaller part of our overall income</u> than it used to. Therefore we're again in <u>competition</u> with each other as institutions for the <u>commercial dollar</u>, wherever that comes from.</p> <p>At the same time, we are required to be <u>more accountable and more compliant with government determinations</u> over what we do with the money that we do get from the government and indeed what we do with money we get from elsewhere. So those things frame what we do. But I think that there are a whole bunch of other broadly ideological factors that have driven us to where we are now. <u>It is not okay not to be entrepreneurial</u>. That wasn't true 20 years</p>

		<p><u>Entrepreneurial</u> examples:</p> <ul style="list-style-type: none"> - offshore teaching programs - commercial research - market share - degrees as products ('product-isation') <p>Tension: commercial ideology versus tradition values</p>	<p>ago. ...</p> <p>Well we charge off to far-flung corners of the world and set up <u>offshore teaching programs</u>. We go out hunting for <u>commercial research dollars to finance research centres</u>. We are constantly looking for the next smart move in terms of our teaching programs that will keep us one step ahead of the <u>competition</u>.</p> <p>We have this regular debate about whether we teach too many degrees. One of the arguments on one side of that is well we have all these degrees with slightly odd names because we're trying to secure a <u>share of the market</u>. We need to keep changing them because we need to keep renewing <u>the product line</u>. We reasonably, standardly now use that kind of terminology. We talk about our degrees as products and they are products that we market and we sell.</p> <p>Now do any of us do this because we really believe that that <u>commercial framework - that commercial ideology if you like - has replaced our traditional values?</u> I think on the whole, probably not that many of us believe it but we do say this is the world in which we have to operate, so we've accepted it.</p>
<p>SA:</p> <ul style="list-style-type: none"> - competition E.g. 3 law schools - business 		<p>A microcosm of the system. [Note: this reinforces and supports the selection of the 3 SA universities for this research.]</p>	<p>The South Australian system is a microcosm of the system as a whole. We've got one of each. ...</p> <p>I'm not sure that it's so much about asking how many institutions we need but a question that we regularly ask - that I regularly ask in my faculty is how many <u>law schools</u> does South Australia need? The answer is not three. But a certain status accrues to an institution with a law school. [REDACTED]</p> <p>Then that's a <u>business decision</u> that isn't entirely about the business</p>

	<p>SA – local competition – ‘catchment’ areas of students for each university. [Is this still correct? – to what extent?] Does this dilute the notion of competition amongst the local universities for domestic students?</p>	<p>of the law school. ...</p> <p>A lot of the competition is fairly meaningless. I can't remember the figures but more than half of our undergraduate students come from the south, so we have a catchment area. All three of the universities have catchment areas. Adelaide's is slightly different because of the status stuff. Those things are determining but they don't affect the sense that we have to compete among ourselves as if we were competing against the rest of the world.</p>
<p>SA: - 3 universities - merger/amalgamation</p>	<p>[This is an interesting observation, bearing in mind recent merger flirtations (and failure to do so), and most recent positioning by VC of UniSA to reignite this.]</p>	<p>... will stand up and say, I don't know why we've got three universities and why they're not merged or amalgamated. That conversation, that set of exchanges - and there's always a standard response which is about the cost benefit analysis says you won't get anything out of this for years and all the rest of it.</p> <p>That discussion surfaces at the same point in every vice chancellorial appointment cycle. It lasts for exactly the same length of time, which is usually a couple of months around the appointment and then it goes away. In a sense the issues that underlie it are never seriously considered. Although they will occur again in a year or two's time, they won't be seriously considered then either.</p> <p>... I suppose the extreme version would be - if we only had one institution and it was that much bigger, it would be that much more powerful a player in a national and international game. So that competition between world status and the local - that's one of the ways it manifests itself.</p>
<p>Profile: - defend foundational values (with varying success)</p>	<p>While running the ‘business’, defending foundational values.</p>	<p>So I suppose if I was being grandiose about it, part of what you do is you attempt to <u>run the business in a way that protects the foundational values with greater or lesser degrees of success</u>. You stick your finger in the dike and the hole gets bigger.</p>

Foundations:		
Discipline and the business: Differences (by discipline): Profile (Humanities):	This is from a humanities perspective: Contrast with Business School.	In terms of my own research, <u>I study business practices rather than practice them. So yes, I think I'd argue historically as it were, that the foundational values of the universities are based in the Humanities.</u> So they're the place where you would expect that kind of protection of them to be coming from and also that to be the place where there is the greatest degree of tension. Whereas presumably there's much less tension in the Business School. (I'm probably more attentive to the immediate state of the faculty's finances than my predecessor often was.)
Drivers: - rankings and metrics	[Does the level of competition amongst institutions vary depending on the level of the manager leader? E.g. between VCs, versus say between heads of school from different universities. Rankings and competition are connected – commercial competition.	One wouldn't want to reduce any of these discussions to the level of competition that takes place among Vice Chancellors in the washrooms of the Qantas first class lounge but there's a component to that - and that's what drives rankings. I think that the extent to which universities have bought into that process and drank the Kool-Aid and in some sense, accepted that this is a meaningful process, when actually even at the level of its metrics, it's profoundly questionable. But I think that the extent to which the universities have bought it and then the external agencies - so these kinds of declarations that Australia should have five universities in the World Top 100 or whatever - things that are just nonsensical. It's meaningless as well as being impractical. <u>But it's indicative of the extent to which competition, which is an essentially commercial competition, has now become an accepted part of what we are and what we do.</u>
Foundations; drivers; responses: - collegial - managerial	Managerial has replaced the collegial – driven by business and competition.	... increasingly and increasingly locally because everyone is looking to score points and grab headlines and all the rest. We've obviously also - but thinking about collegiality - partly because the institutions have just grown, at <u>least in governance terms collegial governance</u>

	<p>- as business decisions.</p> <p>Position of collegiality:</p>	<p>no longer exists. It's no longer functional. So we are much more managerial institutions than we ever used to be, so we make more managerial decisions. That means that the managerial decisions are more like business decisions. Again, those things are all interlinked and they reproduce each other.</p> <p>I'm not sure what the benefits of supposedly collegial governance really were because I think on the whole, the extent of the collegiality was often greatly exaggerated. I think there used to be a lot of [God] professors who thought collegiality meant they could do whatever they wanted.</p>
<p>Foundations; drivers; responses: balance</p> <p>- marketing proposition</p> <p>- differentiation</p> <p>BA example: foundational/commercial combination (below, across)</p> <p>Adaptation (e.g. double degree combinations)</p>	<p>Achieving balance is a conscious decision – mitigates business orientation</p> <p>E.g. university mission including social justice (which is part of a selling proposition)</p> <p>Example: humanities research – expensive and foundational to values</p> <p>Cross <u>subsidy</u></p>	<p>... I think we do them consciously. I can certainly think of lots of strategic settings and policy decisions that are made around balancing - this university has a mission that I guess comes out of its history. So it has a significant social justice orientation that I think is in the DNA of the institution and that that mitigates its business orientation, to an extent, quite possibly in a way that's not competitively good for it. But it does influence, in effect, decision-making.</p> <p>To an extent, you filter that through the competitive mechanism by saying, well that is part of our distinctive selling proposition. That's partly how we differentiate ourselves. So how do we take that differentiated focus and turn it into a marketing proposition, which in that case is clearly fraught with potential conflict and contradiction, which makes it quite interesting. I think the only way you do maintain the balance in a sense is by doing it consciously. So in practice, it is something that you're aware of.</p> <p>As a simple example, research in this faculty - given how the faculty earns its money, if you were making a simple set of business decisions, you wouldn't bother doing Humanities research.</p>

		<p><u>BA example:</u></p> <ul style="list-style-type: none"> - vocational market <p>Adapting with double degrees.</p>	<p>Humanities research is an expensive luxury. It's also absolutely foundational to the values of the institution but it's still expensive.</p> <p>... So necessarily, you balance the level of resources that you put into it against the requirements of earning enough to pay for what you have to pay for.</p> <p>... there is a package of <u>cross subsidy</u> that goes on.</p> <p>We're educating people who see degrees primarily as vocationally-oriented and functional objects. The BA, whatever it is, is not that. It's consciously not that and so its capacity to appeal to the market is currently reduced. I'm not sure that it's ever going to get better. It will always retain a market.</p> <p>This last year we introduced a BA for high achievers and we did recruit. We recruited better than our target for that, so there are still smart people out there who want to study the things in a BA. But I think the environment in which you can expand BAs at the moment, is actually a quite narrow one and it's fairly status-bound.</p> <p>... The other thing that I think - to some extent this may have impacted on the BA - well it has impacted the BA numbers. <u>Our BA-BA double degrees have also been very successful. Again, that is a vocational and non-vocational combination, although the non-vocational component has a direct vocational element in it in that you have to be able to teach something, you need to know some content.</u></p>
<p>Foundations:</p> <ul style="list-style-type: none"> - research - teaching – award degrees - “whole <u>gamut</u> of activities” 		<p>There are organisations that perform elements of these activities, whereas the university performs all of them within the one organisation, with a</p>	<p>So that there are - nothing universities do in particular is unique. There are advanced institutions that do high-level research in the public and private sector and some big corporations have research arms that do research and development. ... There are institutions like universities that do advanced teaching and even award degrees</p>

	<p>- within "culture of understanding"</p> <p>- (degree) of autonomy</p> <p>University defined by legislation (foundations):</p> <p>Separation: corporate/academic</p> <p>Governance (also see accountability)</p>	<p>particular culture and a degree of autonomy.</p> <p>It is the accumulation of these activities that comprise the university.</p> <p style="text-align: center;">→</p> <p>Act indicates 'academic freedom' and separation of academic and corporate governance – threshold standards.</p> <p>Interpretation and example of separation. Governing council/chancellor as distinct from vice-chancellor.</p> <p>Conflict resolution of this</p>	<p>and they're now regulated through the National Regulation System. But they're not universities ...</p> <p><u>A university may be unique because it uniquely covers that whole gamut of activities and does so within what I think you're getting at, which is a culture of understanding</u> that is slightly separate and apart from other institutions, that universities do stand for something with a slight <u>degree of autonomy</u> whereas a corporate research office in principle doesn't have to have that kind of autonomy.</p> <p>We have, in my lifetime in this business, taken things called institutes of technology - including the one in South Australia that's become part of UniSA - and called them universities. What difference does that make?</p> <p>We've taken [colleges] of advanced education and tucked them into universities. So I think it's becoming a blurrier definition but I think there would be a claim - and in some ways it's been reinforced with legislation recently. The <u>Higher Education Act</u> as amended a couple of years ago does embody this thing called <u>academic freedom in the Act</u>, which I don't think would apply to Bell Labs' science lab. The new regulatory structure nationally with TEQSA does have in <u>it threshold standards</u>, a statement about a clear separation - ... - a clear separation between the <u>academic and corporate governance</u> of a university.</p> <p>Now what that means is a good question. There are some interpretations which think it means a separation of academic life from management, in which case I'd be part of management. My interpretation is different from that which is it's a <u>separation between the governing council which is headed by the chancellor and the academic governance headed by the vice-chancellor</u>. In that case, I'm part of the academic realm rather than the management realm.</p>
--	--	--	---

<p>Accountability</p> <p>Driver/influence: quality</p>	<p>separation, matter of autonomous judgement.</p> <p>University able to resist certain claims upon it – but subject to accountability as a public university in receipt of public funds.</p> <p>Regulation – quality as an example. Supportive of this if holds to account university to its values, rather than imposing corporate values.</p>	<p>I think that's what it's intended to do. The <u>governing council has corporate responsibility</u>, in particular to do with risk management and finance and corporate governance. But it would be improper for that council to decide the content of a degree in biology. So that's my interpretation. I think that is a distinct part of what a university is.</p> <p>... [in relation to the separation of these roles/functions] [i]t is a contested area but the University's claim would be, when it comes to a conflict, there is a separate sphere of autonomous judgement. Because we're a university, therefore we [ought to be able to] resist certain sorts of claims on us.</p> <p>I'm not saying it's absolute because I do think we also [have that realm of] <u>accountability, those of a public university [using] public funds</u>. I have no problem at all with accountability for that. I have no problem at all with a regulatory structure where we're held to account. But if it works well - and I'm one of those who thinks that TEQSA isn't too bad. It does hold us to our own values about academic quality and academic judgement rather than imposing corporate values on us.</p> <p>I have no problem at all with a <u>regulatory structure</u> where we're held to account. But if it works well - and I'm one of those who thinks that TEQSA isn't too bad. It <u>does hold us to our own values about academic quality and academic judgement rather than imposing corporate values</u> on us.</p>
<p>Foundations – distinctiveness of the university</p>	<p>Goals comprising transmission of knowledge which is teaching and generation of knowledge, within context of some autonomy of 'academic judgement'.</p>	<p>... what would make <u>the university distinctive</u> would be that it has <u>these goals to do with the transmission of knowledge which is teaching and the generation of knowledge which is research</u> within <u>this context of a claim to some autonomy of academic judgement</u>. I mean, none of those activities are unique. As I say, I can imagine</p>

	[Academic judgement is the way in which balance is achieved, or conflict of this sort of governance is resolved.]	<p>there would be quite good corporate enterprises that have worked out, that it actually makes sense to give autonomy to highly trained professionals because it's good for the business.</p> <p>I mean, I think when Bell Labs discovered microwave background radiation, they were probably trying to solve a problem in their rollout of communication but they gave those people enormous autonomy and got great kudos for it.</p>
<p>Differences (between universities)</p> <ul style="list-style-type: none"> - Australian system - convergent <p>↔ Drivers and influences: [some of these affect the differences, the extent of any differences]</p> <ul style="list-style-type: none"> - policy/regulation - standards 	<p>A range of Australian regulations and standards, as part of the Australian higher education system, leads to a convergence amongst Australian universities. In addition the industrial relations system also reinforces this.</p>	<p>There are differences. <u>Australian universities are probably more similar as a group than many other systems.</u> So the difference between recognised elite - let's say the University of Melbourne and the University - you name one at the bottom there - would be much less than between Harvard and Lower Albuquerque University in New Mexico, which I just invented. The American system has a much bigger range.</p> <p>For various reasons ours is much <u>more convergent</u>, in part because we have <u>Commonwealth funding and now we have TEQSA</u> which is another way of regulating that. We have by and large <u>national industrial relations laws so the range of salaries is less</u>, becoming broader as there are more non-award payments.</p> <p>So I think there is a sense in which <u>the Australian university system has certain minimum standards and in some place TEQSA</u> is designed to have that. They're called threshold standards because the regulation is not of excellence, the regulation is of the minimum standards to be a university and in principle presumably, if you fall below that you will lose registration.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - independence/speech 	<p>Statement of academic staff free speech.</p>	<p>... our staff are entitled to make public statements in areas where they have competence. <u>The University doesn't necessarily endorse what they say but it endorses their right to say it and their right to associate themselves with the University.</u></p>

	<p>Example:</p>	<p>So that's where we would say we're a university. I mean, can I say not for - I'm happy to put it on the tape but not for your record - an example would be a member of staff of this University in the area of marine biology is critical of the desal plant because of salination effects in the gulf and publishes it. That's been controversial and in fact it's our local community and we need to be careful about it. We say quite clearly, he may be right, he may be wrong. He's got every right to publish research about that, full-stop. We're a university.</p>
<p>SA: (differences)</p>	<p>Flinders: 'edgy', not CBD – perhaps public good (for example graduate destinations of government, NGOs), with focus areas of indigenous and social justice. See Adelaide and UniSA. In business field, medium business and NGO focus.</p> <p>[Interesting to note AP's visualisation of the three universities in terms of a Venn diagram, where they overlap. Consider this to show a this theme in chapter 3, or even in the chapter 4 conclusions.]</p>	<p>[Flinders:] Flinders - [everyone uses it] - is edgy, that edgy is a metaphor partly for where we're located. We're not [CBD] though we're [building a] CBD presence a little bit but [unclear southern suburbs]. But also our <u>disciplines tended to be slightly critical</u>. ... Our medical graduates more than average work in the <u>public sector</u>. They work in <u>NGOs, they work overseas</u>, they work in East Timor, they work in Afghanistan. Our law graduates are as good as anybody in black letter law but more of them work in <u>legal aid</u>. So there's a sense of a university which is still partly a product of its times, a not core but slightly - I wouldn't say peripheral but it has a critical distance - and is partly a myth that we like to broadcast because seven-eighths of our law is the same as law anywhere else. But there is indigenous law as part of what we do and social justice law. ...</p> <p>... [further example:] what business school is or what business school does. They teach accountants and financial experts and the curriculum that is given - so Accounting 101 is the same here as elsewhere presumably. But what is different about [unclear] business school - it probably is, we're trying to say we'll cover the waterfront of business but we'll particularly emphasise medium and small business and suburban business and NGO business processes, trying to support NGOs - some which are quite big - to do with their notion of governance and management and finance. In</p>

		<p>that way, we'll be different from other business schools.</p> <p>[Adelaide:] . But I think we'd say the University of Adelaide is Group of Eight and elite and <u>heavily research focused</u>.</p> <p>[UniSA:] If you look at the UniSA <u>graduate qualities</u>, they're professional, professional, professional, professional. It's about <u>professional training</u>.</p> <p>[Compare:] <u>So imagine three overlapping - sort of a Venn diagram</u>. They'll all overlap but we're different slightly in that way and I think it's important to have that kind of difference. It's partly a marketing tool and partly it's an identity thing.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - change (in the form of culture) - culture <p>Change (and drivers): student expectations/school leavers</p> <p>Rankings/league tables</p>	<p>Also consider in comments, change and drivers may be circular: market (student expectations), rankings, the HE environment – are all connected, not separate factors.</p> <p>This affects demand – the shape of that demand too.</p> <p style="text-align: center;">Culture/environment → school leavers (change in demand + change in expectations) ↔ rankings/league tables</p> <p>Student: demand for faster completion.</p> <p>The role of technology in the delivery of courses – blended learning while focussing on</p>	<p>I think all universities are affected necessarily by the <u>changing culture</u> around them. The <u>school leaver student body is naturally quite different</u> than it was when I was a school leaver and inevitably that <u>changes their demands</u> for what they're looking for and their perception of what the University is. So all universities, [wherever on] the <u>league table</u>, are finding students coming in even with <u>high ATAR</u> scores who some of us think are less skilled at English grammar than they used to be but more highly skilled at IT, techie things than they used to be.</p> <p>... There's an impatience about getting through, more than the more leisurely time when university education was more elite. It comes out in things like the role of technology in <u>delivering our courses</u>. We're all now involved in blended learning because it's a good way to learn. But the stand-up-and-teach technique, lecturing to quiet people and then tutorials - a lot of that happens but we're all</p>

	<p>learning outcomes. Delivery to some extent is driven by the convenience for students. [I suggest that this is part of the re-shaping of the market, and perhaps a change in the profile of the student. E.g. part-time students in the workforce, perhaps. Less available time to be on campus. This will also affect on campus culture. How does this affect engagement with students?]</p>	<p>grappling with how to change that, not least your new vice-chancellor. How do you achieve a given set of <u>learning outcomes</u> which is the goal through <u>different modes of delivery</u>? Is the decline of the traditional lecture a problem or is it simply a need for us to adapt to the dissemination of information in different modes?</p> <p>My answer is <u>we adapt</u> to it, that the blended learning is educationally very welcome. It provides improvements in the learning process but it provides them in a way that we have to adapt to the convenience and needs of the students rather than our convenience and needs. That's always been the case, I think. We've just become more stuck. The rise of online competitors increases the challenge. If you can get a degree anytime, any device, at your pace, is that a challenge to us that have lecture theatres and car parks and things? I think sometimes we exaggerate the challenge but I think it is a challenge. To me, the aim in education is learning outcomes</p>
<p>Change – declining authority - (increased) accountability</p> <p>Change: - student focus – teaching - quality</p>	<p>Accountability – various forms.</p> <p>This is a significant change – also connects to governance; compliance and policy. Is quality and even TEQSA and example of this?</p> <p>Bradley Review and 'accountability' – accountability to students – in the form of student engagement & student perception – especially teaching</p>	<p>There's a <u>general decline in authority</u> around the place and for better or worse, universities used to be part of a mystical authority class. We were professors, we knew what we were doing. That's for good reasons a claim that's less intuitively obvious anymore and that applies to lawyers and doctors and academics and politicians. We have succeeded in <u>creating a sceptical, educated society</u> and so we need to deliver. We can't simply hide behind claims of authority. We're as accountable as anybody else to delivering on that.</p> <p>... That's the accountability structure. That's behind the Bradley Review. Denise Bradley went around in her review three or four years ago and told us that, look the game's up. I've been to Canberra where the people are your paymasters and they are your graduates and guess what? They don't think that much of what they experienced with you. They aren't that happy with their education. They found you aloof, not customer-focused, too distant. I'm</p>

	<p>Foundation:</p> <ul style="list-style-type: none"> - research/teaching – research informed teaching <p>→ Responses:</p> <ul style="list-style-type: none"> - measure <u>quality</u> - roles include research & teaching 	<p>quality</p> <p>Change in focus of senior roles – DVC (A) – teaching quality</p> <p>This implemented and measure through the academic promotions process – measuring quality can be difficult.</p>	<p>exaggerating.</p> <p>So the Bradley Review commissioned work on student engagement and student perception and found that in general our students - compared with North America and Europe and the UK - were less happy with us. There's a gap in those graphs. So this culture of diffidence and distance, I think, disappeared [unclear] change.</p> <p>Another important change, all part of the same syndrome - certainly at Flinders, I don't know whether it's true elsewhere - has been the elevation of teaching quality to an unambiguous expectation of what we should be doing. It's the biggest change in my time in this business, in quite a few decades. On my first day on the job, I had to teach but I wasn't a trained teacher. Most of our academics are not trained teachers but we're doing our best to do something about that.</p> <p>... [Role of D VC (A):] Teaching is something you can learn to do better. So a <u>major part of my job is to keep talking about teaching quality</u>, define various ways to insist upon it.</p> <p>... But in a place like Flinders, no - we definitely say we do research-informed teaching but we teach our staff, our teachers. Increasingly we insist that all new staff do at least a minimal amount - as all universities do - of foundations of teaching material and we've added a promotion process which I chair. I can assure you that teaching and research formally count equally in the promotion process. The way in which we can measure quality is still a problem with teaching but in formal terms, they count equally.</p>
	<p>Drivers:</p> <ul style="list-style-type: none"> - financial – decline in student 		<p>There are financial drivers, I think, that compared with - in national universities, we're doing pretty damn well at the moment and we're realising that. But certainly the per student, the <u>per capita Federal</u></p>

<p>funding</p> <p>→ Responses:</p> <ul style="list-style-type: none"> - commercial - internationalisation (students) - budget 'protection' - academic standards <p>Response:</p> <ul style="list-style-type: none"> - international students - diversity 	<p>Interviewee suggests financial drivers have not affected the 'academic project', or "infected it".. [**There are divergent views on this point.** See below.]</p> <p>Notes financial and commercial drivers but this does not compromise the 'academic project' or academic standards. However, notes anecdotal points concerning standards for international students.</p>	<p><u>funding has declined</u> and as a group, the universities went <u>international</u> in a big way, driven in part by the need to make money out of them.</p> <p>So <u>commercial considerations came into that drive</u>. There will be some who claim that commercial considerations <u>have infected the academic project</u> in that way. <u>I would deny that</u>. Occasionally you get anecdotes of staff who claim that we ought to have different standards for international students because they pay the fees. That's never been a policy or directive and every time I've heard about it, which is two or three times, I've said, who's saying that?</p> <p>It may be a local issue <u>of budget protection</u>. I think we'd say - I'm sure the administration would say - that we apply the same <u>academic standards</u> to all our programs, all our students. But that certainly has had an impact and mostly a positive one. It internationalised our student body. We've always been international in staff a bit, I think, but it's been a very positive thing.</p> <p>I suppose Flinders is different because in terms of the relative international student share, we're lower-middle.</p> <p>...</p> <p>It's a <u>diverse intake</u>, mostly post-graduate. We've never had the concentration of China or India. We've certainly got a lot of students from China or India but it's spread across. A lot of Indonesian students we've got. So I think, partly because of our relative scale, there hasn't been much of an issue with us.</p>
<p>SA:</p>	<p>Scale and size of institution.</p> <p>That is, changes/loss of a relatively small number of high performing academics has a significant effect.</p>	<p>When I first came to Flinders, this was an astonishing university research-wise measured per capita, which was an important way to measure it. We were in the <u>top two or three universities in Australia in health sciences, in social sciences, in some other sciences</u>. We're now down to about where we should be. We're probably in the top</p>

<p>SA 'landscape' – 3 universities</p> <ul style="list-style-type: none"> - competition - rankings - stable 	<p>The 3 SA universities represent 3 of the national groupings. [** This is relevant to the Introduction and the rationale for selecting SA for case studies. Refer to this in chapter 1. **]</p>	<p>third rather than - but we were astonishingly good. ...</p> <p>Flinders was up there, number one, two and three. Now because we <u>were small, we were vulnerable to radical changes.</u></p> <p>We're a unique town. There aren't many towns in the world where there are three universities in the Shanghai Jiao Tong top 400. There actually aren't many, there are about 20 places. We're all pretty good and we have a stable competition. There's one Group of Eight, there's one ATN, there's one [IRU]. That's again unique. ...</p> <p>Having three universities all a bit different seems to be quite a stable arrangement. I think we've [unclear] each other pretty well and I think we differentiate ourselves pretty well and what I say publicly is we have three good universities which are all a bit different.</p>
<p>Foundations, drivers and responses:</p> <ul style="list-style-type: none"> - balance 	<p>Actively managing balance: accountability and autonomy; corporate with bottom-up innovation occurring.</p> <p>"... balance and judgement" (including outside influences)</p>	<p>There are always tensions if you have a pure notion of what you want to do, if we're driven by, a university has to be just this. I think it always has been but it's about <u>managing a balanced approach which is managing accountability with autonomy, about managing engagement extramurally with some detachment.</u> It's about <u>managing a proper corporate approach with recognising that innovation happens at the bottom,</u> that universities aren't named for DVCA's, they're named because someone in science invented something or someone in nursing is a great teacher. It's about commercial viability while maintaining academic standards.</p> <p>None of those are - all those are a matter of balance and judgement and a lot of the critiques of universities are by those who I think had an unbalanced view. If you want to say universities are declining because we yield too much to outside influences, I'd say well we do yield a bit, we ought to, it's a matter of balance in judgement.</p> <p>I've never had a problem with that <u>sense of balance.</u> That's partly</p>

<p>← Profile:</p> <p>←→ 'balance' = culture + socialisation</p>	<p>Social scientist – ability to make acceptable compromises.</p> <p><u>Balance</u> is achieved through academic decision-making not managerialism.</p> <p>**NOTE:</p> <p>Example: balance by having transformational and transactional = goals and means</p>	<p>because my background - I'm a <u>political scientist</u> and I think politics is about the art of the achievable and <u>about acceptable compromises</u>. I'm happy to answer to my internal community as a manager for saying, look I'm trying to manage to protect your autonomy but I need you to yield to a certain extent. ...</p> <p>I think it's difficult to run a university unless you're <u>imbued within the culture</u> but not so much that you're swallowed by it. Because it's an intuitive sense of a claim to difference but not too much claim to difference. So I think it's a socialisation where it works well and maybe my experience [unclear] because I spent most of my career at a [particular] university where I think Flinders has to get that balance right. ...</p> <p>... I could critique some <u>managerialism</u>. I think, that must be me, I'm now a manager. I've long regarded myself as an academic leader rather than as a manager and when you've been involved as a non-academic manager here, for better or worse, what this University has done has been through decisions of academic leaders. There have been vice-chancellors, executive deans, school deans. We have, I think, a pretty competent professional staff. But I think, for better or worse, it's academic decision-making that leads things for better or worse.</p> <p>...</p> <p>The literature on leadership - you probably know a bit - but the [claims are usually that] there are two sorts of good leaders - transformational and transactional. If you look it up in Google, you find a lot of people like that. Ian Chubb was transformational, Anne Edwards was transactional. I mean it's really ends and means - goals and means. Good leadership has to do both.</p>
<p>SA:</p>	<p>Scale and size of Adelaide is comparable to other university</p>	<p>... the universities are little islands of international and interstate influence. We appoint people the best we can find everywhere. I</p>

		<p>cities, with universities of good standing. E.g. Harvard, Boston; UC of Berkeley, San Francisco; Edinburgh, Edinburgh. CMU, Pittsburgh. Adelaide/SA – 3 universities ranked in the top 400.</p>	<p>guess we do tend to appoint more of our own than average because people apply to stay in the same place.</p> <p>... [redacted] idea of Adelaide as a university city was not a dumb idea at all. It was a good idea. I have some issues with how they went about it in terms of massive subsidies to international universities. But the idea of having Adelaide as a university city and inviting Carnegie Mellon and UCL is a good idea. ... Because when I think of great university cities around the world - I spent a lot of time in Boston, that's where I did my PhD - a lot of time in Edinburgh, I was at the University of Edinburgh on sabbatical for an extended period. Even Berkeley - I was at Berkeley for a while. I mean Berkeley - I guess you could say San Francisco. But by and large, that's not Manhattan, that's not London. Those are medium-sized cities where universities prosper because of a cultural ambiance.</p> <p>I think to have Adelaide as the Edinburgh of Australia or the Boston of Australia is perfectly feasible. You do it by policies that promote a sense of cultural excitement, multicultural creative arts.</p> <p>... There aren't many towns in the world where there are three universities in the top 400 universities in the world out of the 20,000. ...</p>
<p>Profile: - political scientist</p>		<p>→ that is, determine [public] goals, then mobilise support</p>	<p>As a <u>political scientist</u>, in some ways I think what I'm doing now is practising what I preached as a political scientist. My area of interest is public administration and policy which really is about how to <u>determine appropriate public goals and then mobilise the kind of support which is material and etiological and other kinds of support to get things done.</u></p>
<p>Profile & change: - socialisation of ideas</p>			<p>... part of my <u>socialisation</u> around that table - of everyone around the table - was pretty important, I think, to my mental development. You try ideas out and they'd get supported or knocked down in a</p>

<ul style="list-style-type: none"> - professionalism - <u>quality</u> focus - (negative) – less Socratic dialogue 		<p>non-threatening environment. ...</p> <p>The culture has changed a bit. It's mostly changed for the better. I think we're a little <u>more professional</u> than we used to be. We are <u>more quality-conscious</u> than we used to be. We [pin] more time on high-quality teaching materials. It adds up to a busy life. Twenty per cent of it I miss which is the 20 per cent which actually was a genuine Socratic kind of dialogue among colleagues which has died a bit, I think.</p>
<p>Foundations:</p>	<p>Pure science and professional training is a “false dichotomy”. Universities stated as professional training grounds.</p> <p>[Compare this with literature sources: Humboldt and medieval universities.]</p> <p>Research university is modern – mostly post-war. Modern university does both.</p>	<p>You talk about the <u>primacy of pure science as specialised professional training</u>. Okay, that's one you haven't raised with me. My response to that was going to be - so I'll give it now - is again, a <u>false dichotomy</u> that we need to manage that [bridge].</p> <p>But I think the idea that universities used to be pure and now they've become professional training grounds is historically false. <u>Universities began as professional training grounds</u>. The early universities, at least in the West, arose out of theological and legal training. If you go back to the start of many universities, they began to train ministers for the church and to train lawyers for the profession.</p> <p>The idea that universities are there <u>as autonomous research institutions</u> is actually very modern. I'm told that it's a German idea that comes in with the Humboldtian university - you can look up Humboldt - and then became influential in America in particular because they had a very important German influence on their academic structures [with their innovation].</p> <p>Reluctantly it came into England and to us. But I think that is [kind of a reading back]. <u>The tradition of universities has been about professional training</u>. Certainly the thrust into pure science is mostly post-war, I think. You can read things about that from people who know more about it than myself. I think my answer again - we try</p>

		and do both.
<p>Foundations – universities distinguished from other organisations:</p> <ul style="list-style-type: none"> - balance - both training and research/pure science 	<p>Both, for example, research-informed teaching – across the university. This does not mean that some staff do one or the other.</p> <p>Balance is across the university.</p>	<p><u>My view would be the following, that universities are distinguished by doing both and in particular by having research-informed teaching.</u> But it doesn't mean that you can't have individuals around who are mainly teachers as long as they're doing research-informed teaching and it doesn't mean certainly you can't have people who are 100 per cent researchers. It doesn't mean that all of our staff have to embody that balance. The institution has to embody that balance and hence the education-focused initiative that this University has made, I think, is quite consistent with an institution that does both. ...</p>
<p>Drivers & responses:</p>	<p>Balance research-teaching tension – a strategy: capacity to teach broadly with narrow research specialisation – teach outside of areas of individual research. An institutional approach.</p>	<p>Actually another observation is maybe what my vice-chancellor is saying. How does a university like Flinders - like many universities - cope with a comprehensive range of courses and teachers with the imperative that we should focus our research more? I think that's probably happening everywhere. What we say is we need to appoint academic staff who can teach broadly but research narrowly which implies that we're teaching in areas outside our research specialisation. We want to reinforce our research strengths by picking people who are particularly good at a certain area but they must be able to teach broadly.</p> <p>So I think we're probably trying to <u>institutionalise that idea, that teaching outside your idea of research strengths needs to be a capacity we have</u>. So any physicist can teach Physics 1. Whether you're an atomic physicist or a molecular physicist or whatever, you should be able to teach broadly. I think that's probably a lesson we're all learning.</p>
<p>Foundation:</p> <ul style="list-style-type: none"> - academic freedom 	<p>[This is noted earlier, with an example.] This is a useful clarification on what is meant by</p>	<p>Freedom of learning and teaching - academic freedom is crucial. My nuance of that would be academic freedom is a kind of protected space for people to speak with expertise without fear of retribution</p>

		'academic freedom'.	<p>basically. That's with expertise. It is not a licence to teach what you like. That's my view. It's not a licence to [claim] a student audience. What we teach is driven by the approved aims of the course and the learning outcomes we're trying to achieve.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - changes over time: capture knowledge, etc. - creation of knowledge - harvesting knowledge 	<p>Capture knowledge</p> <ul style="list-style-type: none"> - advance knowledge - improve the world (public good/benefit) <p>Now, <u>unpacking</u>:</p> <ul style="list-style-type: none"> - create knowledge – 'harvest' existing knowledge - <u>synthesise</u> knowledge – to create understanding <p>[**Identifies this as 'scholarship' – this term is used in other data/interviews – same usage?]**[**This may also be equivalent to 'translation' – see other interviews.**]</p> <ul style="list-style-type: none"> - use varied perspectives of knowledge <u>to solve problems for humanity</u> (apply knowledge for public good) – “benefit of humanity ... advancement of our world.” ... and <u>engage community</u>. [**engagement**→] <p>[**That is, knowledge, its application, with the goal or object of public good.**]</p>	<p>... I think for me the university's role is not very different to the original idea of - or even the Academy of Socrates or whatever, the Plato Academy of the ancient Greeks where. Or even further back of Hypatia and the library of Alexandria and so on, where the <u>sole objective is to capture the knowledge of the world and to advance that knowledge, to preserve it and protect it and advance that knowledge and through that vehicle make the world a better place.</u></p> <p>So de-packing that into smaller concepts, it is very much around the <u>creation of knowledge</u> - first of all of <u>harvesting existing knowledge</u> and <u>synthesising existing knowledge in new ways for people to understand it.</u> That's what we call <u>scholarship.</u> But also to take <u>knowledge from varied perspectives from the term of - from the position of solving a problem that humanity</u> may have or from the position of doing it for the sake of doing it. Not necessarily to solve an immediate problem - to advance that knowledge again for the <u>benefit of humanity.</u> [Quote]</p> <p>So that in my view the university - and that's basically what we call research but in my view the university's role is to use <u>this knowledge</u> for the advancement of our world.</p> <p>Of course, again, as a third pillar is kind of anchoring that in the intent which is to <u>advance the world by engaging into the community.</u> The way that we would do that is first of all by making other people's life easier or better or more efficient or happier through our research and the - what's the word - of realising the research knowledge into something that benefits people.</p>	

	<p>Public good through educating, leading to “better citizens”, so that can create new knowledge or use existing knowledge. →</p> <p>[**”Engagement (above) equates to society.**]</p>	<p>But to also benefit people by using that knowledge to educate them to become better contributors - better citizens but better contributors to society, whether they are themselves going to <u>create new knowledge or whether they are going to use existing knowledge for the benefit of other people</u>, to heal people, to educate people, to make people's economic life easier. All sorts of different - and that's the professional pathway.</p>
<p>Foundations; (differentiate other organisations)</p> <p>- accountability – the not for profit ideal of advancing knowledge</p> <p>- protect right to free thought/free speech</p>	<p>[It is possible to have a for profit enterprise that benefits society. That is not their sole purpose or object.]</p> <p>Other organisations (non-university) have some of these elements. [That is, a university comprises all of these elements.]</p> <p>Protection of free thought and free speech, without causing harm. (Qualified protection of right to free thought and free speech.) [Within ‘ethical’ boundaries.]</p>	<p>Well that would be one of the distinguishing characteristics - would be that it is much more accountable to the ideal of advancing knowledge, not to the ideal of advancing the knowledge that would generate the profit, because the profit activity which we call commerce is also advancing the world. The iPhone is an endeavour that advances people's lives, at least in the material sense but it does make them happier too. So even though it is also a profit endeavour - so I don't think the two are necessarily mutually exclusive. I think you can have a profitable enterprise and still be a benefit to society.</p> <p>I think also finally another role of the university is to <u>protect the right of people to have free thought and free speech without hurting other people</u>. We say that we have free speech in the world but that does not necessarily give us the right to go into a packed theatre and say, fire, fire and cause a panic that kills people. That type of thing is excluded.</p> <p>I think that they would be the very basic reasons for being a university and I think that it is different to organisations but some organisations have elements of this, of course. Most organisations do things for the benefit of society but it may not be the sole purpose. The sole purpose may be to benefit the shareholders or the stakeholders of that organisation which may or may not benefit society.</p>

	other interviews.]	
<p>Responses:</p> <p>- management – leadership: entrepreneurial/commercial</p>	<p>Management and leadership, shift to commercial, entrepreneurial</p> <p>Research, research leadership – led by themes of Chief Scientist. [Is that the same as the Government? – national research priorities.] Immediate national problems, longer term too. But increased focus on short term benefits, short term rewards – fewer universities do this with sole object to advance knowledge. [E.g. specific departments – philosophy.]</p> <p>[**To what extent to these drivers go towards affecting the foundations of the university? – these statements seem to suggest a clear linkage.**]</p>	<p>... . Management and leadership in the university now, the form of the administrative management and leadership is very much entrepreneurial, very much commercial, very much not that different to enterprise outside universities in other sectors.</p> <p><u>Leadership in research</u> is also guided by that. You only have to look at the <u>chief scientists' themes</u>, very much more around focused on challenges and problems, immediate challenges and longer-term challenges of problems of the nation. Nothing wrong with that. In fact as we said before we do things that we do for the sake of improving our environment - in other words, the lives of the inhabitants of our environment.</p> <p>So there is nothing wrong with that but the <u>focus now is much more around short term benefits and short term rewards. Probably fewer and fewer universities do things just for the sake of advancing knowledge.</u> If for instance we look at the departments of universities, those departments that may not be perceived - possibly wrongly - but may not be perceived to yield value in the short term are the least funded - like the philosophy departments, the ethics departments. Even though part of those of course are necessary for profit as well, most endeavours if you get - you know what they say, the soft stuff are the hard bits.</p> <p>... departments that are not serving some kind of program that is focused around a benefit ...</p>
<p>Foundations:</p> <p>- nature of the university – applied purpose</p>	<p>Drivers and responses (such as increased focus on the 'applied' does affect the nature (or foundations).)</p> <p>[**This is consistent with this</p>	<p>Or applied purpose, yes or philosophy for the sake of philosophy like Plato and the other people, Confucius and so on would have done it. So a lot of those disciplines probably are suffering at the expense - sorry - the other areas are more focused at the expense of those disciplines. <u>That in a sense changes the nature of the</u></p>

	<p>PhD researcher's proposition where the continuum of the functional elements can shift to such an extent as to affect the 'foundations' of the university. ** This of course depends in the interpretation of what comprises those foundations.]]</p>	<p><u>university</u> somewhat.</p>
<p>Drivers and responses: - age of institution - financial base Response: - entrepreneurial - commercial</p>	<p>Same or similar to other universities of a similar age. A young university so 'survival' is different – different financial base.</p> <p>Driver 1 'Age' → Driver 2 = smaller financial base → responses = entrepreneurial/commercial</p> <p>Response: entrepreneurial/commercial</p>	<p>I think our own university because its <u>survival</u> - because it's young - and so our own university would probably be no different to any <u>other young university</u> but because it is young, because it doesn't have the - I guess the head start and the financial base in some sense, other properties or whatever - although I think we're doing pretty well - but it hasn't had that. Because of that it has to be more commercial by nature to survive, because it doesn't have any affiliation with kings or even with IT millionaires and it doesn't have - it cannot get enough from the Government.</p> <p>... it is by design, by circumstance it is much more entrepreneurial, much more commercially focused than possibly the big eight would be because many of them have the financial resources and a lot of the other stuff to support them, although today that's changing very fast.</p>
<p>Foundation and differences (SA): - commercial - entrepreneurial - applied - engagement</p>	<p>SA universities – same 'orientation'.</p> <p>Other than, [redacted] with commercial entrepreneurship; more 'applied'.</p> <p>Driver = survival → response: commercial entrepreneurial</p>	<p>So in reality is there a difference between my university and the other two competitors here? Probably not in terms of orientation other than perhaps because we've been in the business of business, i.e. on commercial entrepreneurship for the university survival, not entrepreneurship as a discipline - probably a little bit longer we may have a little bit tiny head start. At least we're pursued by the public, perhaps, that we are a bit more applied and have a bit more head start in that.</p>

	'Applied' → public engagement	
<p>Change & drivers:</p> <ul style="list-style-type: none"> - company-like; corporate – 'growth' - student; customer expectations - government policy <ul style="list-style-type: none"> - economic - other government 	<p>Corporate – driven by growth as survival response.</p> <p>Driver of government policy, economic policy, linked to markets and creating customer demand.</p> <p>Changes in market and customer, community and market expectations: school leavers are not likely to attend university – in the past universities seen as elite organisations.</p>	<p>The universities have changed in - they have become much more like other organisations where growth is the order of the day. In the same way as a commercial company if it's not growing it's dying, universities are the same.</p> <p>... Probably policy throughout, I think policy - external policy, policy by Governments has played an important role in a lot of the things that we do - economic policy, governmental policy - the way that - and of course customer demand, if we're going to call them customers.</p> <p>... The attitude of kids now, the customers, the prospective customers for the university is that it is highly likely - in fact the <u>expectation is that they will go to university.</u></p>
<p>Drivers and responses:</p> <p>Foundation: advance knowledge</p> <ul style="list-style-type: none"> - funding; response = diversify funding = industry; applied research - diversify - industry - applied - immediate results <p>Drivers:</p> <ul style="list-style-type: none"> - competitive grants, align with priorities and results 	<p>INTERPRETATION:</p> <p>To sustain a foundation of advancing knowledge typically funding and resources are required A response to this driver is to diversity funding sources – industry funding which often aligns with an expectation of immediate results through 'applied' research.</p> <p>LINKAGES/INTER-DEPENDENCIES</p> <p>This is compared to (e.g.) types of basic research which are not directly funded to build something, even though an application might later arise out</p>	<p>In academia, in research for instance, they want to advance knowledge. The only way that they could advance knowledge in most fields of expertise is through some kind of funding, the time and the funds - the resources - for them to pursue it. If they need funding, where are they going to get it from? Industry, which is highly focused on immediate results and applied results - and government.</p> <p>... But somewhere along the line at about the same time, there was a guy called Maxwell Planck who was a mathematician and he was looking at equations and for aesthetic reasons he basically thought that that equation was not - just didn't make sense, the mathematical equation. So he added a one to balance a constant, if you like to that. That was the basis for the EM waves that resulted in television and all the other communications that we have at the moment.</p> <p>So that type of basic research that this guy was allowed to do - the</p>

	<p>Funding (government & industry) – priorities – control – not independence</p> <p>Foundation-driver tension/conflict:</p> <ul style="list-style-type: none"> - funding - independence - ethics - competition - <u>commercial research</u> <p>Foundation:</p> <p>[Is ethical behaviour core to a university, or is that merely integral to public good/benefit?]</p>	<p>of that research.</p> <p>Policy in the form of Government, competitive grants lead to responses in the form of aligning with priorities and particular results. Often and economic priority.</p> <p>Control of funds, whether by government or industry, equates to control of universities. [So, are universities really independent?]</p> <p>Driver (funds) → Foundation (independence)</p> <p>Driver and response. Research is becoming increasingly commercial, with increasing competition to secure that research and its funding. This can</p>	<p>mathematics are a bit easy because you only have to think and write, the pen and your brain are good enough. But that kind of basic research that this guy was doing was not funded to build something - whereas that we don't do very much of today. In fact we do hardly any. We don't pay mathematicians to sit around, play with equations and come up with ideas that we don't see the value in immediately in the next three or four years.</p> <p>I mean look at most of the grants that ARC use - the ARC grant which is the Holy Grail - the ARC grants for research other than NHMRC which is the other one for health. Look at the money they give. What do they say? You've got to produce some results. I know they have discovery grants and so on but usually - and even the discovery grants, they're not just anything. Most of the ones that are about any idea, they don't get funded. It will be something that's an economic priority...</p> <p>... . So that is one area where the money, thus the people that control the money, which is the Government by and large and industry, they would kind of set the priorities for the research. So they do control the university.</p> <p>[e.g. independence] ... <u>Clearly and indeed sometimes the line is crossed.</u> You can't tell me that there are no research - medical research, in fact I would think or at least research that effects people's lives - food and smoking and so on - you cannot tell me that if you trace a lot of the research reports to where who is doing the funding, that there is not some benefit. Now often they try to be as independent as possible and they don't cross the <u>ethical line</u> but many do in fact, many do. [E.g. of tobacco companies suggested]</p> <p>... sometimes that research actually has a very big commercial objective behind it. So they are guiding the research and they are <u>even changing the emphasis</u> to the extent that - and because the game now has become so competitive and commercial - because if</p>
--	--	--	--

		<p>create ethical tensions with the commercial objectives. [**This go to the core of a foundational notion of independence and ethical behaviour.]</p> <p>Linkage/dependency: response and foundation.</p> <p>Example of commercial-public benefit tension, or conflict. E.g. focus on commercial IP development and a conflict about making it available to developing nations.</p> <p>Moral ≠ entrepreneurial (in some cases)</p>	<p>you write one paper a year as was probably the case 10 years ago, you still have a job.</p> <p>In other words, it has become highly competitive. The game has become so competitive that sometimes even the ethical lines are crossed by the researchers. Because of that, collectively the universities' original notions of what a university is supposed to be are somehow clouded in many cases.</p> <p>... Not only that but we could invent something - and after all we said that it is for the benefit of the world, right but which world we didn't say. You can't say that we don't develop something and because of IP purposes we don't give it to people in the less developed countries that we know. People may be dying because they don't have that thing that we developed but we don't give it to them because we want to make - we want to go through the commercial path. That happens all the time.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - sustain/sustainability - financial/funding - innovation - markets - internationalisation -entrepreneurial 		<p>LINKAGES/INDER-DEPENDENCIES:</p> <p>Once again these elements are connected and dependence – to achieve sustainability, particularly in financial sense, universities have innovated and acted entrepreneurially. The response has been in the form of seeking new markets and internationalisation – this has typically taken the form of international student markets.</p>	<p>We've <u>survived</u>, number one. That means we have done what it takes <u>through innovation to allow us to have financial benefits - financial rewards that sustain the university</u>. We certainly have taken much more risk. We certainly have moved to new markets and we constantly look at new markets.</p> <p>I mean the internationalisation of education is an entrepreneurial thing that - actually Australian universities have been leaders in that - probably not the leaders but leaders in that. It's interesting because it definitely was not the Go8s. In fact it was the first of the national universities, transnational and international programmes were the University of Southern Queensland, Deakin University and UniSA, I think and then Curtin and a few of the others.</p>

		<p>It is suggested that this is perhaps more acute in the case of newer universities, with a smaller financial and asset base.</p>	<p>But if you look at all of them, they're all young and almost impoverished - at the time they were impoverished universities. They weren't the well-fed ones. They weren't the Melbournes or the Sydneys or Adelaide, even. But they moved in layer because they are also changing.</p>
<p>SA: - local, domestic</p> <p>Research: - external funds - industry</p>	<p>Meet local needs and demand.</p> <p>Most research funds from outside SA.</p> <p>Research activity requires increased funding, critical mass for large scale research – more funding from industry.</p>		<p>How did we - what context or the milieu which we're in - I think a lot of it had - if you look at the research that we do both, Adelaide University and us, it's very much around the local needs first. Even the existence of this university has been very much to meet the local needs. I think Adelaide University is not different. [E.g.] ... The local needs are health and therefore Adelaide started medicine and then Flinders and so on. The local needs were some kind of mining in those days. We had copper mines and so on around here I understand - I'm not local. That's where the School of Mines came, which is pretty much what the University of South Australia was other than the teaching bit, which used to do the teaching. Then there were other things that were local needs like we needed accountants, we needed dentists, we needed - so I would say that if you went back 50 years, the local universities probably catered pretty much for the local needs.</p> <p>... . Now the majority of our research funds - and I'm not talking about the Federal Government because that's part of South Australia as well in a chunk - in a small sense - but I'm talking about the rest of the money. The majority of the funding of South Australian research comes from outside the state.</p> <p>... Because now it has reached the mass, the critical mass of doing bigger research and bigger research requires more money and more money is given by bigger companies. So apart from [.....] that's established the School of Engineering building or whatever they have - you know, the [.....] in Adelaide. [.....] has given us a lot of</p>

<p>Response:</p> <ul style="list-style-type: none"> - globalisation 		<p>money for the [redacted] centre - apart from one or two - maybe defence has given us a bit of money too - apart from them, the majority of the rest of the activity is done through companies who may have a presence here but actually not a big presence here, a bigger presence somewhere else.</p> <p>... as the world grew smaller through globalisation, then we were able to go overseas as well. That's one thing that perhaps universities do that not a lot of other organisations do as much, if any, is they <u>collaborate</u>.</p>
<p>Profile:</p> <ul style="list-style-type: none"> - first in family (to university) - European 	<p>[See Prof]</p> <p><u>Value of university.</u></p>	<p>... level I think I have been and still am the only person in my immediate family that has gone to university.</p> <p>So on a very personal level university means more to me and has always done so. [.....].</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - 'environment' – funding - diversify funding 	<p>Environment (e.g. funding) drives university behaviour – e.g. government funding, so universities pursue other sources of funding.</p>	<p>The university behaviour is very much contextual and very much environmental. If the environment is such that the Government squeezes you for money as they do now, you'd better go out and earn it if you're going to survive. Otherwise you die.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - core - teaching and research - educate - skills/workforce - lifelong learning - knowledge (and the expansion of all its dimensions, see later) 	<p>This and [redacted] are consistent and vice versa – that is, universities perform the full gamut of these activities.</p> <p>This view encompasses workforce skills and educating, lifelong learning – with research informing teaching.</p> <p>Across the dimensions of research are accumulators,</p>	<p>We have <u>two core interests</u> and they are basically teaching and research. We need to teach, educate our students so that they have <u>skills for a future life and workforce</u> and are able to undertake <u>lifelong learning</u> subsequently. So there's the big <u>teaching and learning</u> mission associated with the universities, and equally important universities need to excel in <u>research</u> and be at the <u>forefront of knowledge</u>. They need to be <u>accumulators of knowledge, repositories of knowledge and developers of new knowledge</u>. The insight gained from being at the cutting edge should inform the teaching.</p> <p>So very simple in one sense, that teaching and research form the</p>

<p>- research informing teaching (nexus)</p>	<p>repositories and developers of new knowledge.</p>	<p>core missions and the many other activities should be in the service of that.</p>
<p>Foundations and differences (from other organisations):</p>	<p>Universities (at least in Australia) are comprehensive in terms of encompassing education and research, and breadth of disciplines. Distinguishes between research organisations such as CSIRO, and training organisations, for example, TAFE.</p>	<p>Look, there are overlaps in many and varied ways. So if you take something like CSIRO, they obviously won't have the same mission that we have in terms of teaching. They're not allowed to graduate students and I don't think they can graduate PhDs. They have to go through a university. They're likely to have an orientation in research that is a little bit different, but it will certainly overlap with us, but they have a much bigger, for example, responsibility to externally charge for research. So there's a much more applied focus to their research. That's not to say that we don't do that or are not interested in that, but there's a bit of a different emphasis on the research. We're likely to probably engage in more fundamental research by way of balance than they do.</p> <p>Medical research institutes, we will overlap considerably with them. I mean there will be people - there will be elements of our university that look like a medical research institute. But we will also have additional missions. Then of course there might be TAFEs but they're not going to be operating at the same level of perhaps excellence on the threshold of cutting edge stuff. Universities typically have a long history and a tradition of education and research that is very important.</p> <p>In the case of a university like this we are committed to being a research intensive and comprehensive university. It's very important to us not that we do everything but that we do span - we're not a specialised institution for engineering or whatever. We're comprehensive and we're research intensive</p>
<p>Foundation:</p>	<p>Academic freedom is a point of difference to other organisations.</p>	<p>Well we also have - it's a good point - academic freedom that would not be common to some organisations. So I'm in the interesting</p>

<p>- academic freedom – a university ‘factor’, ‘key value’</p>	<p>[Also, see other interviews that describe academic freedom in more detail – what comprises academic freedom.] E.g. here freedom to engage in the research of their choice.</p> <p>This is a ‘key value’.</p>	<p>position as the notional head of research in an organisation of herding cats, as it's commonly called. So I don't have direct control over what researchers do. I basically encourage them to coalesce and join, but <u>researchers have academic freedom and can engage in the kind of research activities they want to</u>. We have every right to assess them and make sure that they're performing well. If they're not performing well there may be consequences. But academic freedom is a key part of the university that <u>factors</u> into this. So that's one of the key values and we cherish that.</p>
<p>Differences (between universities):</p> <ul style="list-style-type: none"> - research intensiveness - performance 	<p>For example, research intensiveness such as with GO8 universities. Still required to perform.</p> <p>Others with a technology emphasis, and some with a high proportion of teaching staff.</p> <p>[Is there a continuum of say, research intensiveness, or a scale indicating the extent of research and teaching?] [How might this be visually represented? See discussion with [.....] – scattergram, quadrant diagram, venn diagram, and others.]</p>	<p>I think there is. It comes down to what I mentioned before. Research intensiveness, I think there are universities - and we now have about 40 universities in the country and some of those are very light on when it comes to research and are perhaps trying to build that but they will have patches of excellence and large areas which are essentially research inactive. It's required of <u>every school in this university, along with all the Go8s, that they should be undertaking both research and teaching at a very high level</u>, whether we succeed or not.</p> <p>So yeah, I think there are universities that also have a technology emphasis, and there are universities that will engage large numbers of teaching only staff, which we don't do. I think we have one teaching only staff member in the university, from memory.</p>
<p>Drivers (and responses):</p> <ul style="list-style-type: none"> - priorities - outputs, performance - benefit 	<p>A continuum of activity (research):</p> <p>Priority is to generate ‘outputs’ of high esteem, international influence – e.g. discoveries.</p>	<p>I guess at a top level - let's take research, where I'm most comfortable. What excites us most really, what we aspire to most, is for our researchers to be known around the world as people of eminence that have made a distinguished influential contribution. So the <u>highest priority in research</u> is that our researchers generate outputs that are admired around the world and that are used</p>

<p>-translation of research - government priority – funding - research ‘eminence’</p> <p>- international rankings</p> <p>Response:</p> <p>- recruitment – is a fundamental strategy - funding \leftrightarrow ERA: driver/response [Linked.]</p> <p>DRIVERS</p>	<p>There are a number of linked elements here. Generate outputs of national benefit, through the translation of that research- discoveries. Feedback loops?</p> <p>Rankings = driver or response (in pursuit of them) This includes ERA. [See journal article on rankings and strategy, provided by [.....] to me.]</p> <p>ERA is influential. [Is ERA influential because it affects funding?]</p> <p>ERA \rightarrow ‘culture’ (a culture that recognises quality of research, including publications.)</p>	<p>around the world. Now used can take many forms. I guess from the basic research point of view used means that those research outputs influence the course of the field, they contain discoveries and so forth.</p> <p>We also place great stock in research on the translation of research. So for example we will have tremendous stories about fundamental agricultural research having translated into more effective and productive wheat and barley crops that are serving the nation well in the face of drought and salinity, for example. So the national benefit associated with the translation of research is very important to us. It's not a driver - it's not the utmost driver, but it's a very important...</p> <p>... A good example would be renewable energy, for example, which has had a <u>substantial boost from the federal government</u>. So research eminence and prowess is a fundamental driver.</p> <p>... So the fundamentals are that <u>we hire great people</u>, we support great people, we have a culture of great environments for PhD students. If you take care of the fundamentals, the rest will take care of themselves. However, international rankings are a very big factor for us now. We know that students and staff overseas look at international rankings and are attracted or not attracted to university because of that.</p> <p>... [ERA] We also have in the country now, the Excellence in Research for Australia, which is the ERA, which is a way of <u>assessing all universities' research</u>. That is very influential I think. To some extent it affects funding, although not markedly, I have to say. We are very highly motivated to make sure we're performing well in there. <u>There has been a cultural change</u> as a consequence of the last [ERA] for example, in that <u>people are realising that publication numbers, quantity, is far less important than quality</u>. So a long list is unimportant if the quality is poor. We need quality and quantity.</p>
--	--	--

	<p>DRIVERS:</p> <ul style="list-style-type: none"> - high impact - political/benefit to society - fundamental research; discovery, translation into benefit - communicate benefit - 'quality', esteem, reputation, (see) rankings - value & society 	<p>This is a key set of drivers, that are all to some extent linked.</p> <p>Benefit to society; able to demonstrate and communicate the benefits while addressing priorities and particular challenges. That is research must have a 'high impact'.</p> <p>A university must still pursue fundamental research but have the ability to 'translate' that research into benefits to society. That fundamental research is an engine for the necessary 'discovery'.</p> <p>Communicating that benefit to society is also connected to the ability to communicate that benefit to politicians and government.</p> <p>[Quite a number of international ranking schemes take into account esteem, and the regard of peers.]</p>	<p>So they've been very big drivers. But with something like the ERA or the rankings that is not uppermost in our mind. We are not obsessive about it, because the fundamentals transcend that to some extent. But we take them very seriously nevertheless.</p> <p>...</p> <p>... *** If the university is really performing at a high level in research in terms of the quality of its research and its international esteem, we're in a very good place. But that has to be done in a way that's compliant with many rules and regulations associated with the <u>code of behaviour in research</u>. It has to be done in a way where we're able to communicate the benefit of that to our political masters, which is increasingly important. It has to be done in a way that we are able to demonstrate that we're addressing problems of key interest to society, the global challenges.</p> <p>We almost inevitably are. We're interested in problems of climate change, of water, of food security. Inevitably we're there. But we need to be clear about that and to communicate that. We need to be able to demonstrate that some of our research has very high impact beyond the fundamental. We will always be a university that believes a lot of what we do needs to be at the fundamental level, because the big breakthroughs that will be of value to society need that fundamental discovery engine. But we will also be challenged to give <u>examples of where benefits</u> have ensued. We're able to do that. ***</p>
--	--	---	--

<p>Drivers/influences:</p> <ul style="list-style-type: none"> - teaching & technology 	<p>Teaching there is a revolution: access to technology by students, e-learning, digital media. Face-to-face focus for small group tutorials – interactions between students.</p>	<p>In <u>teaching</u> however we're going through what appears to be a <u>revolution</u>, that because of <u>technology</u> available to young kids who are used to dealing with video and iPads and <u>digital recordings</u>, the lecture given to 500 people is not convincing anymore. These kids might as well deal with that using excellent <u>e-learning facilities</u>. We still are committed to <u>face to face learning</u>. However, we want that to be in the context of small group tutorials where the professor now is dealing in an inspirational way with smaller groups and having genuine interactions. The 500 classes have got to go.</p>
<p>Drivers & responses:</p> <ul style="list-style-type: none"> - funding – research – costs - (a response) subsidise, diversify revenue - (response) seek changes to 'block grant' funding 	<p>Competitive research – government – funding versus costs of research</p> <p>[This underpins a need for universities in many instances to cross-subsidise the cost of research with other sources of revenue or income.]</p> <p>Direct and indirect costs of research.</p>	<p>... One of the challenges we have in good universities undertaking research is that we can be very successful in winning <u>competitive research funding</u>, which is a very important part of what we do, so national competitive funding, so called category one funding. That means our researchers might get lots of money for important equipment or lots of money to appoint post docs to undertake research. What it <u>doesn't pay for</u> is the <u>underlying costs of hosting that research</u>. So every time we're successful in <u>bringing in \$1 million</u>, it's thought that we need about <u>effectively \$1.2 million in underlying costs to host the research</u>. That is just taken for granted.</p> <p>So one of the things we've worked very hard to, for example, convince this government to do a few years ago was to increase the so called <u>research block grants</u>, which are meant to give us some underlying support for the costs of hosting the research we undertake. Whereas it costs about \$1.27, let's say, to host every dollar of research we undertake, and that's probably on the low side, we were - in block grant perhaps we might be getting of the order of 20, 25 cents. The government decided that should go up to 50 cents and has been on track to do that until the recent cuts, which have suddenly slowed that or stopped it.</p> <p>That's been quite a blow because we've been planning research equipment upgrades and various space upgrades and that has put</p>

<p>Drivers and responses:</p> <ul style="list-style-type: none"> - research intensive – subsidies (from teaching) - [negative] side effect on teaching resources 	<p>This is particularly acute in the case of research intensive universities. Due to the mismatch between competitive research grant funding and the actual cost of research, such universities are very dependent on subsidies from teaching revenues. This draws funding and resources away from teaching.</p>	<p>that on hold. We've had other cuts to the university sector which have really hurt. So we're constantly babbling to explain to the government that if they have a certain amount of money to fund research, they must not be ignorant of the underlying costs of hosting the research. There's the direct costs and the indirect costs.</p> <p>... . It's the <u>research intensive</u> universities that are actually hurting. It's the successful universities that are hurting, <u>because research success, in terms of money coming in, carries with it huge responsibilities to host the research, for which we have no support.</u> Then that then requires <u>effectively cross subsidising from teaching,</u> which in turn <u>undermines the teaching of it.</u></p>
<p>Responses:</p> <ul style="list-style-type: none"> - commercial research, contract research - diversify <p>Foundation/responses: balance</p> <ul style="list-style-type: none"> - commercial - fundamental research 	<p>Explicitly balance contract research with a spectrum of activities, balance with other activities – including</p>	<p>We do a lot. So in 2011, bearing in mind that this university is less than half the size of some in the Go8, in <u>2011 we were third in the Go8 in terms of the amount of contract research we undertook and we were second in the Go8 in terms of the royalty flow that came to this university.</u> So it's very up and down, that kind of money. But we operate at a pretty high level. We would bring in about \$40 million a year in contract research.</p> <p>...</p> <p>... we have a commercialisation organisation as you know, ... I told the board the other day that - we have a new board member. I said, it's not to be assumed that a mission of this board is to grow the business maximally. Because what - <u>the business that contract researchers especially undertakes is a part of our wider spectrum of activities and needs to be in balance with the others.</u> So if that</p>

<p>- 'portfolio'</p> <p>RESPONSE: Benefit – contract research:</p> <ul style="list-style-type: none"> - impact - 'smooth' funding - applied, basic/fundamental research <p>Managing risk</p>	<p>fundamental research.</p> <p>Researchers will perform a 'portfolio' of activities: fundamental research, grant funded, international, students and contract research.</p> <p>Important that discovery and new problems feedback into fundamental research.</p> <p>1. benefit: show impact through industry – discover new problems relevant to fundamental research</p> <p>2. benefit: smooth research funding.</p> <p>Risk management through 'spreading' [, distributing] risk</p>	<p>group enormously contract, other activities would suffer. For example the fundamental research.</p> <p>What I like to say is that our best researchers, many of our best researchers, carry out a portfolio of activities where they are undertaking fundamental research as research based on grants they've got a whole network of students, they've got international connections and they're doing contract research. That contract research can sometimes be a burden because you've got to deliver something. But the benefit of it is twofold. Number one, by interacting with the industry and the outside world, sometimes you can - well we demonstrate impact, but you can sometimes discover great new problems that actually feed back into your fundamental research, new exciting problems of relevance.</p> <p>...</p> <p>[Benefit of contract research:] But the benefit of it is twofold. Number one, by interacting with the industry and the outside world, sometimes you can - well we demonstrate impact, but you can sometimes discover great new problems that actually feed back into your fundamental research, new exciting problems of relevance.</p> <p>Secondly it gives them additional [incom] to smooth the challenge of funding a big group over time. So the contract research is actually very important and engagement with key players is very important, like [redacted], having key account managers already associated with them. So we have a special person or more associated with our relationship with [redacted]. We're currently working through re-energising that relationship and it's very important to us.</p> <p>...</p> <p>It's it feels a bit like investing in the stock market across a portfolio and spreading risk.</p>
--	--	---

	<p>SA:</p> <ul style="list-style-type: none"> - local environment - distance from stakeholders - State government support - demographic 	<p>Positive environment to attract students and staff. Negative – distance from international and interstate stakeholders and partners. Relatively little support from State Government.</p> <p>Demographics – limited scope for local growth. (Versus decreasing proportion of Commonwealth funding.)</p>	<p>Plus is we can talk about the environment here and our lifestyle and for attracting students and staff that's really important. So Mediterranean climate, wine in our neighbourhood, beaches, hills. So the physical environment is - lifestyle environment is key. On the negative side, to give a few examples, we're a long way from Europe and the USA and Shanghai. Not as far away from the latter, we're still a fair way. So there's a tyranny of distance that we need to deal with. Even the <u>East Coast of Australia</u> is a problem.</p> <p>We have a <u>state government</u> that while supportive has not been able to be as supportive as some other states, but we've had wonderful support for various initiatives in this university from state government in relation to agriculture and aspects of optical physics and so forth. But it's sometimes felt that in Queensland and Victoria, for example, there's been an order of magnitude grade and not just scaled up to the size of those places. Might be changing right now as we go through very tough circumstances.</p> <p>We have suffered a little bit in terms of state government support from the political need often for them to be seen to be equal with the three universities, when the three universities are not equal in size and status. But we would say that, wouldn't we? ...</p> <p>The <u>growth is not there demographically though</u>. That affects the <u>budget bottom line, ultimately</u>. There's probably a <u>lesser capacity here for endowments</u> that we would have in Perth and Sydney and Melbourne. That is increasingly important as the proportion of federal money coming to universities is decreasing. That's less than half now I think.</p>
	<p>Profile and the role:</p>		<p>... I think absolutely key to being able to do this job is being positive, is <u>communicating with people</u> out there, is realising that it's all about the researchers and not about me. It's about <u>removing impediments</u> that are in their way.</p>

		<p>So it's about being <u>an enabler</u> and putting your own ego to one side and realising it's about our great people, not about me. My background I think is such that my nature is able to - actually enjoys being in that position.</p> <p>... it's a personal attribute. So professional attribute less so I think. I mean I have a background in computational skills and so forth and I don't think that's been particularly important. It's been important that I've done good research and I've commercialised research and I've had experience in all the things that I need to be involved with others. But it's probably personal attributes that have been most key.</p>
<p>Change (and responses to specific drivers):</p> <ul style="list-style-type: none"> - size – ‘enterprises’ - complex organisations – increasing complexity - community - professional - corporatism - commitment: teaching and research - global competition - growing regulation 	<p>[There is little doubt that universities are growing in complexity – there is a question concerning the extent to which universities themselves add to that complexity in the manner in which they approach change and pressures. Do they choose complex ways of doing things? – not quite business, not quite university.]</p> <p>Unlike most corporations universities do have a wider range of relationships with the community and diverse communities of interest – there is not a singular focus on shareholders for example.</p> <p>[Perhaps this directly relates to the need to diversify sources of</p>	<p>... It's a <u>ferociously competitive</u> world, research, because we operate on the global stage. There's no point thinking about the neighbours. When you do research you're <u>competing with the world</u>. ...</p> <p>... we've now become very big enterprises. Universities are incredibly complex organisations, more complex than the average medium sized company. We'll be approaching \$1 billion turnover in the next few years. The complexities of running an organisation like this are enormous. With a company you tend to have a much simplified mission. You need to satisfy your shareholders, make a profit, generate attractive goods. We've got a bit of that but we have a much wider responsibility in terms of relationship with the community, and the many things that I've talked about earlier.</p> <p>It's inevitable that we've moved from being collegial organisations run in a fairly amateurish way to pretty large organisations having to be run in a much more professional way. There's always a danger when that happens in moving from that that it's perceived to be corporatism and impersonal. But it would not be practicable that the management of 30 years ago would suffice for the challenges and compliance and regulatory responsibilities right now, never mind the financial challenges. It needs to be a whole order of</p>

	<p>revenue and therefore diversify its stakeholders.]</p> <p>Becoming more corporate, complex, professional and competitive, while having a “fundamental commitment to teaching and research.”</p>	<p>magnitude more professional. So the danger is that that's perceived as corporatism.</p> <p>But the good thing that I feel is that while we're inevitably going to be felt by some to be aloof senior managers and so forth, in senior management there's an absolute fundamental commitment to teaching and research being what it's all about and excellence, and an admiration for those in our organisation that are doing those things well. That it revolves around it. So I think that's been a really big change in the last 20, 30 years.</p> <p>... Growing complexity. Enormous regulatory hurdles, enormous red tape and...</p>
<p>Foundations: - type of leadership</p> <p>Drivers: - funding (money)</p>	<p>Leadership of staff – authority, influencing – establishing consensus. Legitimacy of leadership.</p> <p>[Differences – public sector-like.]</p> <p>[Management/leadership: appointment versus election to academic management roles. Noted as a change by other interviewees. Does this connect with changes to collegial stance.]</p>	<p>The big difference is the staff and <u>the legitimacy of your leadership</u> of the staff. There are other issues such as the fact that we're within the public sector technically but in many ways we're outside the public sector in that we have to increasingly generate a significantly higher proportion of our income.</p> <p>... At the end of the day what drives universities and what determines the success or just a mediocre institution is the quality of the staff. ... Managing them sometimes, stroking their ego, sometimes a mixture of the carrot and the stick. <u>But getting them to work together and move, like a conga line.</u> ... You have to have your strategic plan with them but unlike the private sector you have to get their voluntary agreement to these things.</p> <p>...</p> <p>I've focussed as a manager on three things. <u>First of all there's the money.</u> ... So that's number one, if you like but really, if you assume that you will survive as a university, <u>the key driver of change</u>, even the product you get or the <u>mechanism through which you get your income is people.</u></p>

	Income and staff are linked.	
Differences:	Compares to CSIRO.	I think universities are different from other learning organisations. If you compare maybe our science faculties or whatever to the [CSIRO]. I think there is a different mission for universities. ...
Foundations (and differences): - to educate - build knowledge - transfer & share knowledge	To educate students, but to also, in relation to knowledge, to share that knowledge with students. [Contrast this with training, and organisations that only perform knowledge or only teach.]	We are blessed in that the young minds of 18, the bright things of the future come to use to be challenged and to actually learn within a university. ... Essentially our core business is to take 18 year olds and to build up knowledge, to transfer the knowledge we've got, to increase that knowledge and to share it with the students. ...
Foundations: - research (growing, and recent focus) - educate - good citizens - contribute ideals - [connected] to understand[/translate] and transfer knowledge - research = create knowledge - → share knowledge	Growing focus on research – this is quite recent, as is particularly the PhD. Note the role of education to create good citizens, and humanistic ideals as an example. [This might also equate to public good/benefit.]	You could play around with a whole range of things. Our big purpose in life, there has been much more of <u>a focus on research</u> in the last decade, two decades but as somebody pointed out to me, I think, it was the first PhD in Australia, it was awarded at the University of Melbourne and I can't remember whether it was the immediate post World War II period of the immediate pre or post World War II but it could have been in the late 1940s, that the first PHD was awarded and that research started to become recognised as a role for the university. ... So there are differences between universities but the epitome of the university, their first and primary goal is to <u>educate people to be good citizens and to contribute to whether it's humanistic ideals or whatever and to understand knowledge and to transfer that knowledge</u> . The research side of it is important because it <u>generates additional knowledge and we need to share that knowledge</u> as well.
Differences (between	In Australia at least, perhaps	At this stage I'd probably <u>characterize it as a continuum</u> . You had

<p>universities):</p> <ul style="list-style-type: none"> - continuum - rankings - policy (Dawkins) – mergers <p>Foundation/differences:</p>	<p>universities can be represented on a 'continuum' of differences. [Consider how this might be represented visually, graphically – research intensive on one end and teaching intensive on the other, or are there other axes?] Age of institution on one axis – resources/assets.</p> <p>Continuum, significant differences between Australian universities but are 'cumulative'.</p> <p>Rankings e.g. QS, Times Higher Education.</p> <p>Drivers include significant policy reforms (such as from the Dawkins review) which resulted in <u>mergers</u> of TAFEs and institutes of technology to create</p>	<p>the first six universities and they're now, what? Hundred and forty-ish, 150 years old. I guess it's the group of eight although ANU would have been formed, I think, as a college of Melbourne in post war period. But let's call them those eight universities, the older universities. I think with the effluxion of time they have accumulated a degree of wealth, a degree of status. ...</p> <p>I think you've got that group which are the <u>more research intensive</u> and those are the ones that want to be ranked in the world wide school and the <u>top 100</u> and all of these sorts of things. ... You also have the <u>ATN Universities that usually get ranked somewhere in the teens</u>. You've got Wollongong University.</p> <p>You've a couple of good universities there. They haven't been around as long a time and I was interested to see what the <u>Times Higher Ed</u> and the <u>QS</u> rankings do the universities that are less than 50 years old and <u>rank</u> those. That was an interesting move but I think you can see a move along <u>the continuum</u>.</p> <p>...</p> <p>So I think <u>there is a continuum</u> but where you would actually draw the line, I would say, based on my own personal experience, there are a few universities whether it's the Ballarats or the Central Queensland or whatever it might be, that are <u>really teaching institutions</u>. ... I see it as a continuum, I don't see it as groups at the moment and big gaps between them. Certainly if you look at number one and number 39 there's huge differences there but it's <u>cumulative</u> from each one.</p> <p>You remember the John Dawkins era, the reforms and the colleges of advanced education out of which my university sprung a <u>merger between an institute of technology and a college</u>. I think there is room for different educational institutions.</p> <p>[Compare this to:]</p>
--	---	--

<p>- “full comprehensive university” (Australia) [compared to US university diversity]</p>	<p>new universities. [Other interviewees have indicated other consequences from this – including under the Act, to meet the definition of a university, having to perform research.]</p>	<p>I like the <u>American aspect of the liberal arts colleges who are teaching only</u>. Although when you look at it a lot of their staff actually do research and very good research but their focus is on teaching. I think there is scope for something like that but it’s very difficult in Australia to actually say if your strategy until now has been, oh we want to be full comprehensive university, to turn around and say we’ve been teaching only.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - finance, funding, money → response: international fee paying students - response: contract research 	<p>A key driver is funding, with a direct linkage to the pursuit of international fee paying students (as an entrepreneurial response). [How is this entrepreneurial, in a formal sense?]</p> <p>Funding → (entrepreneurial) → international fee paying students</p> <p>Funding → (entrepreneurial) → contract research [see below, across]</p> <p>Anecdote: tension/conflict – resources e.g. international student teaching versus research.</p>	<p>The key driver of all universities has been money, finance.</p> <p>Between 1996 and 2007 on average universities got two per cent wage increase each year or two per cent increase, I’m sorry, in its operating funds each year. Wage increases were running at an average of four per cent and that’s – our major costs is university. Where somewhere in the 60 to 70 per cent of all of our costs go on wages. So you’ve immediately got a deficit there. Then you’re ambitious, you’re competitive, you want to put up buildings like this one outside my window. You got to look for money elsewhere. I actually think that Australian universities have been extremely entrepreneurial in chasing the Australian - [and] chasing the almighty dollar.</p> <p>We’ve done it, most notably, perhaps, in international fee paying students.</p> <p>[...very late 80s or 1990, 1991, sometime around that, looking at this <u>issue of international students</u>. <u>Because they were starting to interfere with our research</u> so we decided we would cap the number in the business faculty at 100. Post graduates were okay but 100 undergraduates. Now there’s thousands today simply – we had the finance then so we could be much more choosy. The income was guaranteed, not fully but 80, 90 per cent of the income was guaranteed.] ... Now all of our universities are reliant on international money. I would say 20, 22 per cent on average in Australian universities but it can range up as far as in to the 40s.</p>

	<p>Reliant/dependent on international money.</p> <p>Other sources of income: contract research.</p>	<p>That's now a key driver and many vice chancellors and deputy vice chancellors research because that's the other source of income, contract research and so on.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - income - (indexation) – deficient – 'deficient dividend - research areas - cross-subsidisation - investment (lack of) - competition (Asia) 	<p>States that income and internationalisation are 'key drivers.</p> <p>That is, international students fees, in addition to directly paying for teaching international students, those fees pay for a range of facilities (even funding research, as mentioned elsewhere).</p> <p>Perhaps, it is more accurate to say that income is the driver and internationalisation is the response.</p> <p>There is the additional benefit of internationalisation, gaining an understanding of other cultures from an overall business perspective, as identified in the interview.</p>	<p>... A lot of facilities on all universities on all universities are paid for by international students. If we didn't have the international students we would be much the poorer in terms of building, in terms of liveability of our campuses, in terms of interaction, understanding of our students about – particularly from a <u>business perspective</u>, what happens in <u>other cultures</u> that we sell to or operate with.</p> <p>I think it's been <u>fantastic growth from my personal perspective but it's been driven not from a strategy</u> that says we want to internationalise our campuses but that simply we've had a federal government that has not funded universities. That looks likely to continue. You saw the recent two per cent deficiency dividend whatever you want to call it. I would worry if there is a change of government in September as appears likely but the incoming government may build on Labor's cuts and say, ooh, thank you very much we're going to do three, four per cent or cut specific areas or interfere with perhaps some <u>politically sensitive research areas</u>. I have a fear about that so income, I think, has been a key driver. <u>The second one, if I may, is internationalisation.</u></p> <p>...</p> <p>I think Australia has increasingly become part of the world economy and particularly part of the Asian economy. So one of the things I feel so negatively about, <u>lack of investment in our universities is</u></p>

		when I'm in Asia and I see what goes on there.
<p>Changes:</p> <ul style="list-style-type: none"> - equity 	<p>E.g. UniSA – prioritise indigenous and lower socio-economic background participation/students.</p> <p>[E.g. UniSA College – Foundation programs.]</p>	<p>We've adopted a slogan, if you [want to call it that] at UniSA of equity with excellence. We are finding legislation specifies that we will particularly help those who are the first people in their family to go to universities. Indigenous people so we are an equity university and if you look at the proportion of our kids who come from lower socioeconomic backgrounds it's quite significant, much more than Adelaide or even Flinders. We're one of the leading ones in Australia if that's the right way to describe it. I was the fifth kid in my family and I was the <u>first to go to university</u> to I'm very supportive of that equity mission.</p>
<p>Profile:</p>	<p>First in family to attend university.</p>	
<p>Foundations:</p> <ul style="list-style-type: none"> - teaching - research (more recently) <p>Drivers:</p> <ul style="list-style-type: none"> - funding 	<p>Response: to resource this, funding and diversified funding.</p>	<p>I mean at the end of the day as we talked about <u>the mission, it is teaching and it is increasingly the last 50 years research</u>. But you cannot teach well without good facilities and that's where you need to get the substitute money that the federal government doesn't deliver to you.</p> <p>...</p> <p><u>Funding drives a lot of things</u>. You need the funding to do the research, you need the funding, not necessarily to do the teaching but if I can do teaching in a new \$85 million technologically enhanced building it's going to be much more effective than me getting up with the chalk and talk.</p>
<p>Changes:</p> <ul style="list-style-type: none"> - professionalization [?] - engagement 	<p>[More professional, or is this more business-like? Additional professional staff, and increased professionalism in the manner in which all activities are performed – business-like?]</p> <p>[New roles in some universities in</p>	<p>The teaching, research, the community engagement, we chase dollars. I've noticed the number of universities, for example, in the last two years, there's been some very senior appointments and teams of appointments made in what you might call the engagement, enhancement and fund raising area in universities. We're getting very professional about this now so we've done the international students. We've realised, oh, that's a little bit shaky</p>

<ul style="list-style-type: none"> - complex organisation - matrix - professional staff (increasing) 	<p>the areas of engagement or so-called 'advancement' which is community/industry/alumni fund raising.]</p>	<p>so, look, we need to be looking at fund raising itself from whom, what, our alumni, whatever it might be.</p> <p>...</p> <p>... more professionalization and more demands for professionalization. So I have, in my business school, a full time accreditation officer.</p> <p>...</p> <p>They have to be more skilled, there's no doubt about that. I haven't but if you went back and had a look at the average level of employment of professional staff or maybe you do a bell shape distribution. There's no doubt that the bell shape now in 2013 would be more to the right of the 2003 bell shape. So we've got higher levels, no question about that. <u>Structures are becoming more complicated, we're all in matrix structures.</u> The administrative people are a very important part of the team.</p>
<p>SA:</p> <ul style="list-style-type: none"> - flat growth - low economic activity - mobility (low) 	<p>Flat population growth, school-leavers. Possibly declining.</p> <p>Low SA economic activity.</p> <p>Nationally and SA low student mobility.</p>	<p>No, there is one big minus and that is that we are, at best, in a steady state, state. You regularly come across projections about what the population of Adelaide will be in 20 years' time or whatever. Basically I've been year for 10 years and it hasn't really changed. So it's very much a steady state and if you look at the number of 18 year olds coming out of school, if anything, there's a slight decline over the next bunch of years.</p> <p>...</p> <p>It is a state that also is at <u>the lower end of the economic criteria in terms of productivity, growth prospects and so on.</u> So I think there are a number of negatives there. Related to that, of course, is the habit in Australia, the culture <u>of students doing their undergraduate degree in their home state.</u></p> <p>... [So based in South Australia, I think there's probably more</p>

			<p>disadvantages than advantages. We can sell the smallness of the state, the small population, opportunity to focus on your work and so on but when we do some focus groups with students about what we need to do and could do, that's one of the things that comes through seriously, there isn't much to do in Adelaide.]</p>
<p>Change:</p> <ul style="list-style-type: none"> - exit transnational initiatives - competitive - performance management - managerial - international competition 	<p>Increasingly managerial, including and increased focus on performance management.</p> <p>International competition: e.g. Chinese universities.</p> <p>Australia aligned with Asia.</p>	<p>About three years ago we took a decision, we moved out of most of those. So a number of staff that we needed to service those transnationals, we no longer need and if they don't meet the [rounded] teaching or research criteria, we move them on. If they're very good teachers and also corporate citizens then yes, we can find a place for them. But it's become universities, not just UNISA but everywhere has become much <u>more competitive</u>. <u>There is much more scrutiny of what somebody's actually doing.</u> Performance management, we've become much more professional at. So as a university in some ways we become – universities, let me talk plural. We've become much better at what we do and how we manage but some people argue we've become more managerial.</p> <p>...</p> <p>[International competition:] ... There are more challenges out there. [Groups] I mentioned earlier, I think, are just the latest manifestation. Private sector organisations that will want to offer business degrees because you don't need huge investments in those areas. The Asian universities, instead of sending students down to us – did you know that <u>China, actually, now has more foreign students in China than it sends abroad?</u></p> <p>...</p> <p>Saying, we're not punching above our weight, everybody says we are but we're not really if you count this and that. We've done well. We're a large country with a small population at the arse end of the world. We've managed to have a very high standard of living and</p>	

		<p>yes, we may be the lucky country that China saved us from global financial crisis but we helped ourselves as well. So I'm very positive. I think we need to recognise what's happening in Asia, the speed of which it's happening. As I mentioned my grandkids will need jobs so we need to be part of that. I think we are Asians now politically. If you look at our export markets, China's number one, Japan is number two. South Korea number three, India number four and US number five.</p> <p>Not Europe so we're Asia Pacific if you want to use the jargon, economically very clearly so. Politically and socially not quite there yet but travelling down the route. So even our former prime minister, John Howard, who was very much the picket fence 1950s, I think, in the early years, by the later years was recognising and actively pushing and participation in things. Post Howard it doesn't matter who's in there, we're part of Asia. We're white Asians and there's brown Asians and yellow Asians and God knows what other colour Asians but we're Asians. Socio-politically, worldwide, who do we link up with as a block? It's got to be Asia.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - (managerial and collegial) - knowledge (students and society) - society 	<p>Managerial? Collegial? E.g. election of heads. Is this still a real distinction? – it is argued.</p> <p>Adapting but foundations are the same – for example, different process and delivery.</p> <p>Knowledge in terms of creating, adding to and disseminating with respect to students and society. [Does this also equate to public good/benefit in terms of the frame of reference of society?]</p>	<p>It's got some distance to go but I'm very hopeful so linking it up in my earlier comments. I think universities have adopted and adapted very well and I think they have the capacity, the intellectual capacity and the drive to do that. Now inevitably not everybody's going to agree with that and maybe those are the people that use the <u>managerialist phase and so on. They may hark for a different sort of collegial environment</u> although I'm old enough to remember – the [God] professors was not a collegial environment. The only collegial stuff was really maybe the late 70s, early 80s when we'd elect heads of schools and things like that. In many cases that was a disaster.</p> <p>Or the people that were in there just weren't – you put somebody in there to get them out of their teaching because it was so bloody bad or something like that. So it's changed a lot but we've been very</p>

		<p>good at adapting to change as institutions. I do laugh a little bit when I hear all of these people using books from the last two years about the death of the traditional model of the university. There isn't a model. We're doing things very differently, structured differently to how universities were when I joined 30 years ago. We're still disseminating knowledge.</p> <p>The core purpose I talked about, is the guardian of existing knowledge, the teacher of that knowledge, the disseminator of that knowledge to principally our students but to society generally and then the attempt to further add to that knowledge. We're still doing the basis now if the mechanics of doing it or the process of doing or how we do it actually changes, I'm comfortable.</p>
Profile:	<p>Discipline of Industrial Relations. Acted as a mediator.</p> <p>Line management</p> <p>[Elsewhere noted first in family to attend university.]</p>	<p>I know exactly when I wandered into administration I was an associate professor at Melbourne.</p> <p>A research centre came up at Monash and I was head hunted really to go and run that research centre. It was called the National Key Centre and Industrial Relations. Key centres were funded for six years and then a number got another three years funding. Well I was brought in at the end of year five because I'd established a bit of a reputation for interacting with the practitioner community and raising money.</p> <p>... Okay, I'm a professor now in the school, I'll have to do my [term] as head of school so I planned three years.</p> <p>... So I think it was my ability to handle money and budgets and to manage staff, that's what happened. I didn't set out to be an administrator. I went to Monash to run a research institute and indeed while I was head of the school of management I continued to run a research institute because my plan was to go back at the end of the three years.</p> <p>... . I'm a line manager, I'm a manager, a very good manager but I</p>

		<p>didn't want to go off line and be a DVC academic who didn't have budgets and line responsibility. So I was left to do that and that's why I stayed the 10 years here, I enjoyed it. I was the line manager. I didn't want to become a DVC or anything.</p>
<p>Foundations: - scholarship</p> <p>Balance: - scholarship-bottom line - independence-management</p>	<p>Tension and balance to be considered in relation to <u>scholarship</u> AND the <u>bottom line</u>.</p> <p>Tension between management responsibilities and the priority that is attached to the individual discipline – this really implies the tension between management and the freedom of the individual academic.</p>	<p>... but it is true that there is a respect <u>for scholarship as opposed to the bottom line</u> and that is one of the big conflicts of course now.</p> <p>... they're allowed to express that quite openly which in a lot of organisations of course you've got a vision, a mission and bang that's it. You can't step outside that line.</p> <p>... So it's a game where you have <u>management responsibilities</u> and all those things and there are some areas where they will toe the line but when it comes to anything around what they might look at in <u>their own science or their discipline</u> or whatever, the executive dean wouldn't dream of interfering in that it's very much their realm. That's quite different from most other organisations you might work in where you toe the management line.</p>
<p>Change: focus - budget - performance - e.g. ERA (research), ATARs (students) - competition (for students)</p>	<p>Change – focus: budget, performance, productivity – metrics and rankings: ERA, student ATARs.</p> <p>Competition: student demand.</p>	<p>I came back in the 90s and it was still a bit that way, but boy since - the last ten years the whole need to <u>balance the budget and live within your means and produce and perform whether it be for the ERA or whether it be for the ATARs of the students coming in, competition for students</u> et cetera that's just changed things dramatically.</p>
<p>Differences (SA universities): [limited comments]</p>	<p>Flinders was once more 'democratic' in its approach, also, with academic areas operating quite independently. Now directed through financial,</p>	<p>[Flinders University:] ... it was very much run on a more democratic, working together model, as opposed to what we laughingly call here the fiefdoms [laughs] although that's changing too. The whole financial, funding model changes et cetera have changed that to a great degree.</p>

		<p>funding model.</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>
	<p>Changes (SA) & differences [?]:</p>	<p>[University of Adelaide:] at the time no consistent organisational structures, even in relation to certain management roles – uniform roles were being implemented at the time.</p> <p>Equivalent roles performed difference functions, with different emphases (e.g. in Science, more research and research development in the faculty manager role than with other faculties.)</p>	<p>So that's what I mean about the 130 plus years of history causing the problems. We have no consistency of approach here. So structurally it's very hard to make change. I was thinking about what you were talking about the transformational change in this place it is made difficult by the fact that we don't have an organisational structure that allows you to do that. Every time you sit back and you think well who do I need to talk to about [laughs] it's really difficult. It's changing, we're all getting executive faculty managers now, so I'll be replaced by an executive faculty manager and there's one in Health Sciences now.</p> <p>... Oh there's - I mean there is another aspect to that is the nature of what each of the faculties does. So for example, I have a lot more to do with research and understanding research and we've actually appointed a manager for research business development which other faculties may not.</p>
	<p>Changes & drivers [?]:</p> <ul style="list-style-type: none"> - cost of research - research funding - internal cross-subsidies 	<p>Research: increased costs, with decreased funding (in real terms).</p> <p>Competition.</p>	<p>Oh the changes to funding have been phenomenal. So for a faculty like ours the additional SRE that was promised we finally went phew, that will help get us through because we are so research focused and the <u>cost of delivering that research is high</u>. Then that was taken away. Then the university overall because you're always competing for a portion of a pie so they can either reduce the pie</p>

<p>(increasing)</p> <p>Changes & responses [?] - cross-subsidies (internal)</p>	<p>Cross-subsidies between faculties and between research and teaching – teaching subsidising research.</p>	<p>once it hits you or you don't perform as well as everyone else and so your portion of the pie reduces so we keep getting hit both ways. Whilst a bit of that is within our remit to improve if the other faculties don't perform then the university's overall portion goes down.</p> <p>... So it's a battle all the time and that's why Rob the exec dean will always say we might - say oh why aren't The Professions doing more in the research space. <u>But we're very conscious that they support us through their teaching and we're conscious that we need to help them improve their research and vice versa.</u> So it's - you can't - a faculty is not alone in this scenario of funding. You need the whole university to be doing well in order to improve.</p> <p>So the funding is a problem.</p>
<p>Drivers and responses: - increase student revenue</p>	<p>Depending on the area/discipline, increasing student numbers and revenue could result in decreased surplus, margins, or even deficits. This is due to more than a proportionate increase in costs – e.g. where there are additional capital expenses (such as laboratories), or teaching does not scale-up and requires small classes.</p>	<p>...one of the issues I can see looming is that with the finances you either - well hopefully you do both. <u>You increase your revenue and you reduce your costs.</u> Increasing revenue more students eventually <u>it's like a step change can hit your expenditure.</u> So the obvious example, if you've got a tutorial class of 20 at the moment and you've only got 18 in that class you add two more at no extra cost, all revenue. If you add 10 you've got to put on another tutorial - bang. Does the extra revenue you get cover your costs and that's more for us in the terms of chemistry has got a thousand first year students now.</p> <p>Now if we grow the student body in Sciences a fair whack of those kids go into chemistry. You can't dictate that they can't do chemistry because it's a fundamental of course, what happens if we get to the stage where we've got to <u>build new first year labs, a massive expense.</u> So it's that fine line of ensuring you don't blow - that's why the growth agenda was always going to end up killing us under the previous vice chancellor. Because look at all the new buildings we have had to build now, hundreds of millions of dollars that we are</p>

		now paying off.
SA: [University of Adelaide]	<p>Research agenda – research intensive – reputation. High cost.</p> <p>This has flow-on effects – increases student demand in other areas – overall reputation of the university.</p> <p>[This also raises the broader issue of rankings – how universities take them into account – whether planning or in other ways, and how does this affect the market and overall reputation of a university – see journal provided by]</p>	<p>The research agenda at this university makes it - gives it its reputation. We're not renowned for producing lawyers and accountants we're renowned for being a <u>research intensive university</u>. That really costs but at the same time if we didn't have <u>that reputation would be getting the international students into our business programs and the like</u>. We're part of the Go8. Why are we part of the GO8? Because when you look at performance in ERA and the like there we are up with the rest. We scrounge along at the - in the raw dollar terms and the student terms and all the rest of it. We are just always number eight, but there are some aspects that really highlight us.</p>
<p>Drivers and responses:</p> <ul style="list-style-type: none"> - performance - KPIs – metrics - tension between KPIs 	<p>For example, KPI to achieve certain research income targets. What about the cost of that research? – another measure might be to balance the budget.</p>	<p>But I can also say that talking along those lines part of our problem here is that you get people with KPIs and if you have a KPI that says you need to get in so much research income to meet your portfolio KPIs then do you stop and worry about what that research income costs to the local area? So you sign off on agreements for this, agreements for that.</p>
<p>Responses & change:</p> <ul style="list-style-type: none"> - growth 'agenda' – students and research - 'scale & focus' [research] [This is noted as a characteristic of the current (2020) UniSA research strategies.] 	<p>Driven to grow student numbers and research. How does this affect quality? Respond to this challenge in relation to research with 'scale and focus'. Meaning?</p>	<p>... we're talking about the <u>growth agenda in students</u> has to be carefully watched. Because if - in the end it can end up being a cycle of - you end up going under. But it's the <u>same with research</u>. When you have quality research you don't always need the latest whizz bang. We talk about scale and focus in research but we've really got to do that and maybe that's the future, you can't be all things for all people.</p>

<p>Change:</p> <ul style="list-style-type: none"> - student growth – quality - graduate outcomes - ‘mass’ education - “work ready” - balance: students work ready & future researchers 	<p>[The market may have changed in terms of student expectations – growing focus on being work ready, finding employment outside a university, versus university being preparation for becoming a researcher.]</p> <p>[There is the issue that comes with student growth, mass education and how this might affect quality.</p> <p>There is lots of balancing.]</p>	<p>...</p> <p>... If you're talking about the <u>students, okay no enrolment caps. Go for growth but at the same time we've got to have quality students.</u> I come from the era where maybe two percent of most of students went to university and we still have some academic staff who believe that that's - if they don't come with maths 1, maths 2, physics, chem and English then they shouldn't be in a science degree. That has slowly changed, I've seen that change over the last 10 years, but that certainly is a big tension.</p> <p>Having your <u>graduate outcomes</u>, having your quality producing the students who are going to become the next generation of research students and researchers and all the rest of it. But at the same time recognising that it's more of a <u>mass education</u> now and a lot of those students really want to be <u>work ready</u>. They don't want a research career. So that's always a big balancing act.</p> <p>...</p>
<p>SA:</p>	<p>Challenge for SA is distance from decision-makers in Canberra and the east of Australia. [This view has varied amongst interviewees – some see the issue for universities being one of operating in a global environment. We often can't access global research funds, whereas universities can assess international students – Australian research funding still seems to be very much focussed on Australian sources. Competitive grants versus</p>	<p>... being in South Australia you said is there a difference about being in South Australia? Oh yes there is, we're too far away from Canberra. Too far away from the eastern seaboard where all the big decisions are made. So when it comes to the divvying out of funding and so forth we'll often miss out.</p>

	contract research, which has a different purpose. This is discussed elsewhere.]	
<p>Drivers:</p> <ul style="list-style-type: none"> - research – national priorities - outcomes – applications - ‘practical outcomes’ 	<p>At different levels these can be drivers and responses to them: national priorities (such as at the time, food and manufacturing), with the responses being applied research and specific outcomes.</p> <p>[This also aligns with the later research policies concerning research impact under RQF and then ERA.]</p>	<p>Yes well they want outcomes. I mean there are - I mean I look through the research grants' applications and there are still some fairly esoteric ones coming through. But in the main - the latest one they're handing out is a research training scheme. I think of the 12 in Australia we won one of them and it involves I don't know a couple of post-docs and 12 PhD scholarships and all the rest of it and it was in wine. Because it's about I think food and manufacturing are the two areas that they're funding at the moment. So it's the national priority stuff.</p> <p>So although the theoretical stuff is still there and underpins it you have to say well here is all the theory we're working on because that's the <u>outcome</u>, that's the <u>practical application</u> that we will have, yes.</p>
<p>Change:</p> <ul style="list-style-type: none"> - organisation - academic units - disciplines - centralisation - academic identity/alignment 	<p>Restructuring. There is an ongoing tension between management functions such as finance and HR and academic functions and identity. The former often sitting in faculties, and the latter in schools, or similar structures – disciplines and where schools reflect them are where academics (and to some extent the external community) relate and connect with. [This aligns with comments about disciplines.]</p>	<p>So straightaway we've got people saying, why, why? Because for school administration even a faculty doesn't mean anything, it's where work happens, it's where <u>finances are managed or whatever</u>. <u>What we're going to try and do is get the academic areas - give them back their old name, which they desperately want which is department.</u> So the academics can identify that they're in a department of chemistry, department of physics, department of geology, department of whatever they want. Right so that's the academic and if they want to put that on their business cards we don't care. They will belong to a school where all the HR and the finance and whatever is managed and then they'll belong to a faculty where the overarching.</p> <p>...</p>

	<p>External view is important to academics, rather than university administrative names for structures/units.</p> <p>→ Example:</p>	<p>Because they're <u>administrative structures, internal organisation structures</u> whereas for the outside world the fact that they are a <u>chemist in a department of chemistry at the University of Adelaide</u> is all that people want to know. ...</p> <p>... Because around the world, because our guys are very much <u>focused externally around the world</u>. They said everywhere else in the world they understand the department and what it means.</p>
<p>Drivers: = government – policy - e.g. low SES students, participation rates, Indigenous students</p>	<p>Drivers connected to Government funding; conditions of funding: low SES students, participation rates, indigenous student participation for example.</p>	<p>I mean <u>one of the drivers</u> if we're looking at <u>government funding now</u> is all with students about how you are addressing the needs of lower SES students. Participation rates, Indigenous students and that's part of our review, we're looking at improving what we do in those regards. So going to the esoteric is not the way. Adelaide's reputation amongst those to which - that campaign would appeal is already established. We're not going to lose that.</p>
<p>Changes (and drivers): - types of student; student demographic</p> <p>Responses: - reduced university prerequisite subjects</p>	<p>Funding and: - types of students with less science subjects - lower SES - Aboriginal</p> <p>In response to decreasing numbers of students with science subjects.</p> <p>Further response: advanced</p>	<p>So I guess that the big changes in the funding, the nature of the students coming here. The broader range, the emphasis to get into the lower SES, Indigenous look at people for science of course with no science background.</p> <p>So we <u>got rid of the pre-reqs</u> and it hasn't been a disaster. That was a major, major problem for many of our academic staff. If you scratch the surface it's still there. What was great was that we were able to bring in the <u>BSc (Advanced)</u> to show that we can still get the</p>

	degree offered to balance need for student quality.	quality students in and so that's shut that argument up. It's always about like we were saying before, a balancing act. You have to make sure that in easing something up you can still deliver, in this case, quality students. So that's been another major change for us.
<p>Changes:</p> <ul style="list-style-type: none"> - risk management - compliance - regulation 	Increased risk management and compliance	<p>... one of the drivers behind the professional staff team changes and what we continue to improve on is all <u>risk audit committee</u>.</p> <p>... Compliance yes oh - the risk audit is the committee of Council but it's... Compliance has just gone - it's dramatic. So that has been a real driver in - and whilst the academic staff might moan and groan they also accept that that is - there are so many times where I say the [unclear] quibbles or whatever they'll be screaming about which we're about to address but we're just going to get there somehow. We're going to reorganise our team so that we do those because they're just getting out of hand.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - research – idea of research - staff – staff engaged in research <p>And responses:</p> <ul style="list-style-type: none"> - evolution (of the university model) – evolution of the organisation 	<p>Common thread running through all universities is the 'idea of research'. But the model of the university organisation is evolving (with respect to the 21st century).</p> <p>How is this thread represented? E.g. the majority of academic staff are engaged in research.</p>	<p>It's an <u>organisational type</u> and universities - I'm sure you know - <u>stretch back to about 1200</u>. So coming from that line is the initial thing - you talk about the foundational. That's the foundational philosophy of what a university is.</p> <p>I think what you're getting at in your own work is does that 12th century model - or one that kind of [burst] to <u>enlightenment in the 16, 17, 1800s</u> - is that the model we should be using in the twenty-first century? Universities are responding in different ways to the modern world, but that's what makes it different. What makes anything different, whether you talk about the school that I'm in or the university that I'm in, is the evolution of that within whatever organisation it is. ...</p> <p>... and I think <u>that's the thread that's still continuous in most of the models, is the idea of research.</u></p> <p>... <u>What is researched and how you do it and all that, probably has</u></p>

		<p>changed. But to me, that's one of the big differentiators between a <u>teaching institution and a university</u>. I'm not making a comment about which is better or more useful to society, because it's a - that's a different question. So you have TAFEs - tertiary institutions - giving degrees and very clearly not embracing research for their staff. They're giving accredited tertiary degrees. <u>So what makes a university different is that a majority of the academic staff - certainly not all of them - are engaged in some sort of research.</u></p>
<p>Differences (from other organisations) and Foundations: - university = teaching + research + breadth</p>	<p>[Compares TAFE, institute, only business school.]</p> <p>Breadth means more than one discipline area. The contrasting example that is provided is the standalone business school in Europe. [Perhaps, INSEAD might be an example.]</p> <p>Example of breadth of a university [SA]: business, medicine/health, engineering.</p>	<p>... it's - that's the mirror image of the TAFE that <u>has teaching with no research</u>. You have research with no - and I say teaching in the traditional sense of degree-based teaching. So there are some institutes that certainly conduct seminars and they even provide input into courses. There probably are some that have - I don't know. I can't off the top of my head, but there probably are some that have some accreditation for PhDs or whatever, possibly. But to me, <u>the university brings those two streams together in one institution.</u></p> <p><u>I think that's part of what the pressure is in the twenty-first century, is that - is a specialist taking one of those two, a better model than a generalist, which is a university? Because I think the other piece of the university is its breadth.</u> So you can have - we deal - in here in the business school, in our EQUIS accreditation, we deal with EQUIS accredited business schools in Europe. For the most part, they're standalone entities. They're not a university. They're a business school.</p> <p><u>Whereas a university - we're sitting in one now, or you're up the road at Adelaide, where you are, it doesn't just have a business school. It has medicine or health. It has engineering. It has a range.</u> Where the institutes you're talking about are quite specific. It's an institute for X. The Centre for Cancer Biology that's building a building here, that's a very specific institute. Yes, they have PhD</p>

<p>- teaching + research - staff: teaching/research, [not necessarily in the same fields]</p>	<p>Universities can include institutes – single discipline, or sub-set. E.g.</p>	<p>students. Or the Wine Research Institute, they supervise PhD students. But they don't have - that's their - they're very narrowly focussed. So it's the breadth of the university as well as that teaching and research, I think, that helps define it.</p> <p>The fact is, is that <u>many universities encompass institutes because that narrow model</u> - we're sitting here in the school of marketing. We are The Ehrenberg-Bass Institute for Marketing Science. So we have quite a narrow focus.</p> <p>In fact one of the - an interesting issue is that the research you do in <u>Ehrenberg-Bass</u> is prized by companies. They pay us for it and all that. But it <u>doesn't encompass the breadth of marketing</u>. So we have to teach courses that - we add areas that we don't do research in, because our institute is quite narrow, even though it's marketing science. But the discipline of marketing - we don't do, in the institute, research on sales. That's one of the biggest areas of marketing, is selling business to business, how companies get their products into the supply chain. We don't do much research on strategy. A tiny bit, because that's - we're marketing sciences. We're narrowly focused, but we have to teach strategy. We have to teach sales. We have to teach these broader areas.</p> <p>... but the fact is, is that people teaching in a university are often doing research. We encourage them and that's kind of one of the things, but not everybody does. <u>It doesn't mean that what you'll teach will be in your narrow research area, certainly at the undergraduate.</u></p>
<p>Foundations:</p>	<p>Query of applied/'basic' research.</p>	<p>My personal opinion is - and this is one of the issues that I think universities are running into now, especially newer universities that don't have a long history with lots of funding. So if you're Cambridge or Oxford or Harvard or whatever that have long histories, that have</p>

	<p>And Drivers: - age of institution, funding</p> <p>Drivers and responses:</p> <p>Change:</p>	<p>Older institutions with larger funding (such as endowments) can do research that has “long-term horizons”, which might be referred to as ‘basic’ research.</p> <p>[This issue of ‘age’ and therefore funding could be considered to affect one of the foundations, that is, not only the matter of performing research but whether that research includes ‘basic’ research.] [The age of intuition has been raised by a number of interviewees, including]</p> <p>An ‘engaged university’, that is, engaged with industry could be an indicator or an applied research emphasis – industry research tends to require shorter term outcomes. [Is this driven by the overall ‘funding’ driver?]</p> <p>[Does the above driver indicate a new university model? – a model that has industry engagement at its core? To what extent does this go to some of the ‘foundation’ questions? – inter-dependent?]</p>	<p>big endowments - even Adelaide, to some degree. But certainly Sydney and Melbourne, <u>with very large endowments, can afford to do research that has long term - you may call it basic. Let's just say it has long-term horizons, as compared to universities that don't that extra funding, so they really have to look at shorter-term horizons.</u></p> <p>... the University of South Australia and - has been and is probably being even more focussed by our new vice-chancellor to look - to be more of an <u>engaged university</u>. So if you can - you want [a subset] <u>engagement for applied</u>, it's not a direct substitution. Because, as I say, with our <u>own research being engaged with industry</u>, maybe that they contract us to do work that is too long term [for them]. The companies we work with have plenty of PhDs. It's not that they don't have people doing research, but <u>shorter-term research</u>.</p>
--	--	---	--

<p>[Research and teaching:]</p> <ul style="list-style-type: none"> - inquiry - teaching – critical thinkers - teaching and discovery 	<p>The amount of one’s own research that can be taught or inform teaching may be quite limited. Perhaps more likely to take the form of critical thinking in the classroom.</p> <p>E.g.</p> <p>[I note stated that research informed teaching is important but your teaching does not need to be informed by your own research and may be informed by the research of others.]</p>	<p>... Whereas if people's research is quite narrow, there's only a limited application of that specific research in the classroom.</p> <p>However, I think we have to take it a step further and say that people, who are good at research and have that enquiring mind, and - we say - especially in social science and business.</p> <p>... So bringing that into the classroom is - for us is more - is (1) the discoveries we make, so bringing those discoveries in. But it's also - I think it is teaching students to be critical thinkers. I'm not saying someone, who doesn't do research, can't teach someone to be a critical thinker. But if you are a critical thinker in your research, that translates - ...</p> <p>So that you want to strengthen a muscle, they can actually put a sensor on that. Say look, the beep goes when you're actually strengthening that muscle. The person then learns what muscle to strengthen. Taking that in as a teaching thing and - to teach students but it's also becomes part of a - empirical knowledge where they're diagnosing something is an empirical question, isn't it? It's not a theory. It's [empirical] - so I do think that there's something good about an active researcher teaching students. Notwithstanding the fact that you have good and bad teachers, and good and bad researchers. Right? Across any group of people.</p> <p>... that statement is leading towards is that an active researcher is also - to be active, you're also a reader of the literature. So your breadth and depth is increased because you're an active researcher.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - exchange of ideas, environment 	<p>Is this a foundation or an 'enabler' (or something else, some other feature or</p>	<p>... if you have what a university should be, which is <u>exchange of ideas amongst staff</u> - not just between staff and students, but between staff, then I'm the recipient.</p>

<p>of - research into teaching</p>	<p>characteristic of the university)?</p> <p>E.g. an institute where exchange of ideas and sharing occurs.</p>	<p>... So I think that is exactly what you're saying, but it needs an <u>environment of exchange</u>. Some universities - and I am not speaking about anything specific - or certainly some people, and even some departments, are more insular than others. Where people sit in their office, door shut and they do they work. There's not a lot of exchange going on. Publish some articles, go to conferences, but they're not interacting. In other ones - to get that research into your teaching, you need to be that sponge for ideas. None of us can read all the literature.</p> <p>... <u>One of the great things about being in our institute is, people do share</u>. People find a really interesting article - every day I probably get at least one, sometimes two links that someone sends around saying, isn't this cool? This is a new idea. Look at this new way of measuring shopper behaviour or whatever it is. That wouldn't happen - probably if you were working in business, you wouldn't have time for that.</p>
<p>Foundation [and differences]: - (university) teaching</p> <p>Changes: - teaching – performance – metrics - 'satisfaction'</p>	<p>[Query by interviewer. Context: What are the other things that - <u>is teaching in universities distinguished in other ways?</u> Either in the [what] or the way we do it? Or the - so clearly the - being informed by research seems to be a hallmark?]</p> <p><u>Metrics and performance</u>.</p> <p>This suggests a <u>market and students as customers</u>. It at least implies this.</p>	<p>It's an interesting question, because universities I think, in general, have struggled with that question. When I went, and probably when you went, 30 whatever, 40 years ago - 40 years for me anyway - the guy got up and gave a lecture. That was the means of communicating. As far as I know, there was little pressure to learn to be an educator. We did - I don't remember my first undergraduate, but by the time I - by the time 1991, when I had my first job, they were measuring student satisfaction. But I'm sure for hundreds of years, there was no student satisfaction measures. Some people were good at it and some people weren't good at it and there was no expectation.</p> <p>... But I think what I'm saying is, is there was recently - maybe in the last 20 years more - well there's a measurement now of teaching whatever that - whether good or bad, there's measurement of teaching prowess. Like there had been for research, but now there is</p>

<p>- learning and teaching units – ‘educators’</p> <p>-online teaching</p> <p>Responses and drivers:</p> <p>Drivers:</p> <p>- information technology [IT]</p> <p>- systems</p>	<p>Learning and teaching units, academics as ‘educators’.</p> <p>[Other interviewees note the role of technology, and blended learning – [.....].]</p> <p>Which way around is this? The way of learning and teaching drives the infrastructure, or is the infrastructure shaping teaching delivery? {I note the new, emerging plans for teaching delivery at – apparently no new large lecture theatres – who or what is driving this, evidence? No new creative performance spaces, a model that contracts this out to third parties – is this model infrastructure driven?}</p> <p>Who leads this, how is it led? [This is a PVC here.]</p>	<p>for teaching. There is the understanding that just because you're a good researcher or a bad researcher, doesn't mean you're a good or bad teacher.</p> <p>...</p> <p>So we have schools of education. Now our university, and I think Adelaide and others, have these teaching and learning units, where they have educators, who are then helping us be better teachers. But I don't think the worth of that particular model has been shown yet.</p> <p>...</p> <p>I think universities now are at that cusp - every university is - with the <u>online and the MOOCs</u> and all this kind of things. Is what is the best way for a student to learn that lecture method? We all know it's [past] and yet we have buildings full of lecture theatres, right? So the infrastructure - and I think that happens in a lot of organisations, not just universities. Where <u>infrastructure - or that infrastructure is the IT infrastructure or the physical infrastructure, the design of space dictates activity, rather than the other way around.</u></p> <p>...</p> <p>We have systems - whether they're <u>IT systems or lecture theatres - that are based on a model, which is maybe not the right model for today. So changing is - because that's my job, is trying to - not lead</u></p>
--	---	---

			<p>change, but coordinate the change. It's easy to write projects. It's easy to write things, but doing them and deciding what it is that actually needs to be changed to have an effect...</p>
<p>Drivers & changes:</p> <ul style="list-style-type: none"> - information technology [a global trend] - global marketplace – market - reputation – student demand (global) - growing, intense competition - emerging role of <u>global rankings</u> - Australia: local competition – 	<p>The global market place and the growth of information technology. [Perhaps interpret this as IT is a means of projecting into that global market place, or it is even part of creating that global market place, a digital, online market.]</p> <p>The global brand too.</p> <p>- This further leverages for the 'big name' universities their ability to attract the 'top' students.</p> <p>[See the journal article from M Liebelt on rankings, influence on university strategy, student preferences.]</p>	<p>We take - the big trends of course globally are the information technology, right? The fact that you can - now if you're a top university with that - I take a marketing tact. If you're a top university with a brand name like Harvard or Stanford or Cambridge or Oxford and you package whatever it is - let's not get too specific. Whether it's an online course or whether it's a TED talk or whatever, putting your brand on there is going to get more awareness and more clicks or more people, than if we're the University of South Australia going out to the <u>global market place</u>.</p> <p>...</p> <p>So that's one of the things now, is that big names are able to leverage that even more than the - those universities, we'd all love to have the problem that those universities have with a hundred people applying for each place in the university. So we can choose the best of the best. It's the same in China. It doesn't matter if it's [Tsinghua] or whatever, you've got these universities that can choose the <u>top one per cent of students</u>. Whereas the rest of us, <u>because of our lower reputation or lack of reputation</u>. ...</p> <p>...</p> <p>So what I think we're talking about is, <u>from the university sector itself, more intense competition</u>. The advent of global rankings - and there's always been kind of rankings, but now they're <u>measured</u>. Whether you like the way they're measured or not, there's lists. So if somebody wants to say well who is the best in X? They can look at rankings and they get that - that makes the competition much more globalised.</p> <p>In Australia, I think what we have is we still <u>have localised</u></p>	

<p>student mobility (lack of for undergraduate)</p> <p>- competition for learning – non-university</p>	<p>Other forms of learning, other than university.</p>	<p><u>competition for undergraduate</u>. At least in Australia, because students don't tend to travel between states. ...</p> <p>But - and then of course, you take the globalised thing and say well now the competition is universities are doing that, because they're getting competition from new entities that are involved in education in that broader sense. Whether it's degree granting - somewhere like University of Phoenix is a virtual university. So it is a university in the sense that it gives degrees and things. But you can also go on and listen to TED talks. You can get educated in all different kinds of ways.</p> <p>So the <u>range of competition for learning</u> - let's forget the degrees at the moment - is even stronger obviously. So that's a huge thing.</p>
<p>Drivers:</p> <p>- funding (students and research)</p> <p>- Australian HE system – government funding [DRIVER]</p> <p>- other, non-government teaching income [RESPONSE]</p> <p>- competition</p>	<p>Context question: funding</p> <p>E.g.US</p> <p>Australia:</p> <p>Dependent on government funding, with universities less prepared for competition – interviewee likens this to government welfare. Did later diversify sources of income.</p> <p>Usually, research is a cost – not</p>	<p>Absolutely, and that's - that is the fact of being here and the fact that - so take, for example, where I did my undergraduate and postgraduate in the US. Already those institutions were subject to variable funding. So most of the - I went to a state university. So most of its money came from the State; some of it came from the Federal Government and a lot of it came from student fees. So you already have an entity that is built on the fact of multiple income sources from students. Let's - <u>we're forgetting research now. Just talk about the students.</u></p> <p>In Australia, you've got these whole - <u>these universities that have built their systems based on government funding for teaching. So we don't - we'd never have thought about, until the recent international student push, of other sources of teaching income.</u> So we - I think in that sense, <u>universities were less prepared for the competition in Australia</u> because of their reliance - it's almost like welfare. You rely on welfare; you don't get any job skills. <u>You rely on government funding; you don't learn how to get other sources of income that allow you to do the things.</u></p>

<p>Drivers: - funding (government) – subsidy [government subsidy]</p>	<p>surplus or profit generating. Universities can subsidise with teaching revenue – this is not possible in the case of an Institute. (Institutes may fund themselves from industry – e.g. memberships, commercialisation. But then they are directly affected by the economic fortunes of the particular industry. E.g. →)</p> <p>Interviewee reinforces the impact of the Government funding driver – funding policy frequently changes, with high impact.</p>	<p>Because - just going back real quickly. It's clear from a university point of view that it's really <u>rare</u> that any research entity <u>pays its own way</u>. That without the - <u>that teaching - and that's one thing a university can do that institutes can't do</u>. They can <u>subsidise research with extra revenue</u>. Whereas an institute, like - I'll take for example, because I know it pretty well, the Wine Research Institute, started by the wine industry. <u>Funded by contributions from growers and wineries, et cetera</u>.</p> <p><u>When those things start falling away, as they are now - because Australia is not as profitable [in the wine], wine industry, [unclear] fallen away</u>. That institute has no - they've got to become more commercialised - they offer commercial services. But they have no other way to subsidise, so they're shrinking, because they can't afford to keep the people, because the revenue stream from their own industry has reduced. ...</p> <p>Institutes are more subject to that, where universities have this buffer of student income. But in Australia I think, as you've alluded to, is that we're on - we've been on - so <u>used to the government subsidy</u>. <u>When they change their rules, as they do relatively often and it's almost always for the negative, it leaves us higher and drier</u>.</p>
<p>Foundations: - learn to learn, lifelong learning - to enrich (students)</p>	<p>This equates to a form of statement about educating being a foundational element, dimension – lifelong learning and 'enrichment' of the self.</p>	<p>... we initially talked about what the origins of a <u>university, foundations, were</u>. Even when I went - and that wasn't that [<u>long ago</u>] - I started in 1970, and that was still very modern - you went to <u>university to learn, and to learn how to learn</u>. It wasn't a trade school. As much as my parents and many parents said oh you should be a doctor or a lawyer. That's what [you're at] university [to become]. Those professions that came out of universities - and I didn't. I studied literature and language, as I did a liberal - American liberal arts degree. <u>People went to universities to enrich themselves, to learn how to learn</u>.</p>

<p>- critical thinking [,making sense of the world?]</p> <p>Drivers, change, or both:</p> <ul style="list-style-type: none"> - KPIs – performance - graduate employment (and quickly) 	<p>Also, critical thinking (as a foundation) – is this also integral to ‘educating’?</p> <p>Is the graduate employment and its KPI a driver in itself, or a response to the driver of funding? That is, degrees that are associated quick employment outcomes are more likely to attract students and make money for universities.</p>	<p>...</p> <p>I - my personal opinion is, is that that education that I got, which was a liberal arts education - I had to do sciences as well. But a liberal arts education has really stood me well in the - what I just talked about. Critical thinking, writing and communicating, reading complex things and making sense out of them. I think now the trend is that universities are trade schools and we measure - what percent of your <u>graduates are in jobs</u> within three months or six months of graduating? That becomes a <u>KPI</u>, which forces us to make sure our students get jobs, which make sure that we teach them to do things that companies want them to do when they walk out the door.</p>
<p>Changes:</p> <ul style="list-style-type: none"> - degrees – competency - conflicts with foundations (to pursue knowledge) 	<p>Context question: University degrees are becoming ‘competency’ focussed, or even competency-based? [Is this connected to achieving quick graduate employment?]</p> <p>Yes – see statement of interviewee.</p> <p>[Implication that the competency focus conflicts with the foundational pursuit of knowledge.]</p>	<p>I don't think there's any doubt. I think you're absolutely right. Our government - again talk about <u>government</u>, with TEQSA and all that. They are - they've set frameworks, and it's a competency. It's a glorified TAFE framework that takes it to level 7, 8 and 9, which are the Bachelors, Honours, Masters, PhD kind of level. So it takes it up a step above TAFE, in the Honours, Masters, PhD, but it's still a competency. Yes, they claim in the Masters - if you look at the words that are written, that you should be able to do more complex marketing thinking than an undergraduate or whatever. But it's not - we're not pursuing knowledge for the sake of knowledge, and maybe in this modern age, we can't afford to.</p> <p>But I just think probably - and this is just top of my head - that a measurement or an outcome-based system has a hard time measuring those what we call intangibles.</p> <p>...</p>

<p>Driver or response [?] - impact (through competencies)</p> <p>Response? - US/European university models – achieves general and specific knowledge (in education)</p>	<p>Example of actual competency-based courses.</p> <p>Example of exploring the range of competency-based skills across programs, across a range of disciplines, fields.</p> <p>Critical thinking and creativity as a competency?</p> <p>The interviewee is a proponent of the US and European model comprising programs of general knowledge, then the specific.</p> <p>Example:</p>	<p>At the same time, we at this university - another university [we're] talking about - that we should be teaching creativity and entrepreneurship. We haven't come across what - exactly how we're going to do that, but we're starting to talk about should that be a core competency across every discipline?</p> <p>... I think they are thinking about well if we're going to measure impact and we're going to do things that are useful, what are things that we can do, beyond just training a physiotherapist to recognise what the problem is and giving treatment for that? Should that person also - and from a very basic point of view, shouldn't they be trained as well in a bit of business skills and whatever? Because they're going to go off and operate a business. Should they be trained in entrepreneurship and creative thinking? All that stuff.</p> <p>...</p> <p>I'm very much in favour, even though it's more expensive, of American four-year program because it allows that general knowledge as well as specific. So in the US for a business degree, for example - and it's somewhat similar in Europe, but not as broad - you don't even go into the business degree at university until your third year. So you have two years of arts and sciences. That's where you take your economics and your maths and all of that stuff.</p>
<p>Responses (to wide-ranging challenges: funding, market, competency-based degrees, etc.):</p>	<p>Linkages-dependencies: Funding/assets/income sources ↔ success</p>	<p>Well - yeah, again I think money goes a long way - it can go the wrong way, but it goes a long way in allowing you to respond to those things. I see very clearly in Australia - it was just clear from the latest AHRC - ARC and NHMRC announcements. That the wealthiest universities are getting by far the largest share of those dollars, which means to my mind, they have two things. They have the time - they have the money to buy in the talent and to pay them more than other universities can afford. But they also have the money to invest in nurturing, helping, supporting that talent. That - <u>there's nothing wrong with that, because from a societal point of view,</u></p>

	<p>Response: - adapting; being adaptive</p>	<p>It is essential to adapt.</p> <p>Poor investments, or failure to adapt to a changing environment E.g. decreased performance of endowment investments – especially when used for operational, recurrent items. Or, for example, failure to adapt in the form of models such as offshore, franchised operations.</p> <p>E.g. particular offshore model with agents was fine at the time but model was financially vulnerable. Did exit this arrangement and programs/degrees.</p> <p>A range of factors: fluctuating</p>	<p><u>they're utilising their assets.</u></p> <p>... what you were asking me is how hard is it for universities to adapt, and are we adapting to that? The answer is it is - <u>we already are seeing it's almost adapt and - or die.</u> Because we're seeing universities that are really struggling financially because they haven't adapted. Or they've - like any company, they've invested in maybe the wrong kinds of things. More facilities, regional facilities, offshore facilities. There's a whole range of things that you can invest in.</p> <p>I'm just saying bigger university - and Melbourne suffered a huge shock in the financial crisis, because they have huge endowments. They're using the income from those endowments to pay staff. When the value of those endowments and the monies that they were receiving as dividends and whatever went down, they actually had to reduce staff. But it still doesn't - they still have billions of dollars in investments, which we don't. So they have a - well they have the ability to be quicker.</p> <p>[E.g.:] Well one of the things we did - and it's hurting us today, and it wasn't wrong at the time - is we invested in a network of degrees overseas with agents, where we - almost like a franchising model. Where we - we went over there for - as you know - for two times during a semester. But the rest of the time was taught by hired people, using our materials overseas.</p> <p>... Because of our reputation and, in a sense, our naivety in that original [original], a lot of those arrangements <u>were not very good financially.</u> We did get EQUIS accredited, so we were able to - I think - personally I think we maintain the quality pretty darn well. Where some [other] universities have been caught with very differential quality, let's say, between offshore and onshore programs. I think we - UniSA managed that better than many. ...</p>
--	---	--	--

	exchange rates, salary costs.	[Exited from franchise model and withdrew programs:] That really - that has been one of the things that has affected us along with all the stuff. You know, <u>exchange rates</u> and blah, blah, blah. But that has caused our total student numbers - especially international numbers - to be down. After having built a system, which is mainly people, to teach those numbers and now those numbers aren't there. Now you have <u>salary costs that are too high</u> for the number of students you have.
<p>Response:</p> <ul style="list-style-type: none"> - agile, agility (to make changes) - (therefore) cut 'red tape' [?] <p>SA: (differences):</p> <ul style="list-style-type: none"> - agility – little difference between UniSA and UA <p>Response:</p> <ul style="list-style-type: none"> - simplify - business models – separate academic and financial decisions 	<p>Response to what driver(s)?</p> <p>In terms of agility and ability to change quickly, there is little difference between the SA universities. To be more agile, at this time VC UniSA proposes 'cutting red tape' as part of his so-called Crossing the Horizon strategy. But what does that mean? [Following the end of this CTH strategy there still seems to be a lot of red tape – perhaps just changing one type of red tape for another – new layers get added over time.] What's the evidence of improved agility or less red tape?</p> <p>Example: (offshore arrangements)</p> <ul style="list-style-type: none"> - quicker to consider academic and financial decisions separately. Why? 	<p>... from my very short term at thinking and looking at that - and I don't know <u>how different we are at University of South Australia from Adelaide or whatever</u>. But <u>my guess is not that much in the broadest sense - is that we're not agile</u>. We're actually - one of the things this vice-chancellor is putting forward is - one of the Crossing the Horizon initiatives <u>cutting red tape</u>. Well that's great. Let's cut red tape. It is good, but where do you start? What is red tape? Define it. Tell me what red tape is. We've actually started to come up with a definition of that, so we now know at least what to look for.</p> <p>... in fact we just made a very simple decision - which is surprising, because of all our <u>offshore agreements</u> and things. A simple decision to <u>separate the financial arrangements with an offshore partner from the academic arrangements</u>, which allows us to get a commitment both here and overseas to move forward. So we don't -</p>

	<p>[Is this approach systematic or a one-off? How have these been separated, as academic/structure of programs and financial are typically linked?]</p>	<p><u>bundling them together takes a long time.</u></p> <p>At the end of that time, sometimes it doesn't work and you've both put in a lot of energy. We have put a lot of [energy in] - say developing new courses or new degrees for this partner, fitting into them. Then at the end of it oh, the <u>business model</u> is not very good.</p> <p>But that was our thing. That contract, if you want to call it that, had to be approved by academic board. So now we've separated. Here's the financial model, let's approve that. Once we approve that and sign an agreement - which of course, nothing is fully bindable. Once we sign that, then - or along with that, we started the academic, but it's two separate trains.</p>
<p>Foundations: - models and foundation - idea of academic freedom</p>	<p>[Yes, there is a tension between the business models and academic freedom.]</p>	<p>... when you talk about the <u>foundation and the models</u> - and we're talking about this in our business school now. The idea of academic freedom seems to imply that you're free to do what you want.</p> <p>[Facilitator: Is that another tension? In terms of having to adapt?] Well that's what I'm saying ...</p> <p>[Is there a tension, in terms of having to adapt?] ... that's what I'm saying...</p>
<p>[Focus research; research themes; freedom]</p>	<p>'Freedom' E.g. PhD student and choice of research topic, discipline, versus areas of research within the university area. Tension with a university trying to focus its research, and provide freedom, flexibility – 'an approach is '<u>research themes</u>' (with research topics in a theme).</p>	<p>... if you come as a - let's take it as a - you come as PhD student and you apply in some health or science related field or an engineering science related field. You go into X, Y, Z's laboratory - physics or whatever. This guy says I'm into optics and lasers. <u>These are the areas we're doing research in.</u> [REDACTED], if you're going to - you're coming for a PhD. Here is the area we're working on, and here's some potential research questions. But they've got to go this way, because that's my research.</p> <p>In business schools and in many other schools, when a student comes in and says I'm interested in country branding, for example. I'm interested - I'm from Indonesia. I want to look about branding</p>

<p>→ tension; conflict [research] – freedom</p>	<p>Tension: focus (through research themes) but affects ‘freedom’.</p> <p>[This relates to <u>independence</u> too.]</p>	<p>tourism to Indonesia or whatever. The professor or academic might say oh that's an interesting one. Yeah, let's look at that, and we do. But does that allow us to focus our efforts?</p> <p>That's the tension I think within a university. We've decided in our institute to have bigger research teams. To have - we have four <u>themes</u>, which we're just getting off the ground. Everybody can be a member of all or a minimum one, but at least one theme. Or you can be a member of all themes. Those theme groups will meet - once they get - we get up and running and all that, those theme groups will decide what are the research topics within their theme.</p> <p>... So you get <u>more people working in the same direction</u>. But that is, <u>by its very nature, limiting to the freedom</u> of someone to come in and say well I don't really want to work any of your themes.</p> <p>That is a - that's a tension I manage as a head of school here. I think at the university level, we're moving to the same kind of thing. We're moving to a research themes approach, which other - we're not the only university doing that.</p>
<p>Responses (& change):</p> <ul style="list-style-type: none"> - engagement - [commercialisation?] 	<p>Strategy with an ‘engagement’ focus – new buildings, centres and clinics.</p> <p>E.g.</p> <p>[Some of this has a ‘commercial’ end; applied and practice focus.</p> <p>UniSA Museum of Discovery (e.g.) community and education focus – age targeted, late teens+ ?]</p>	<p>Then you're talking about beyond that, harnessing those academics to deliver something, whatever that is. We're [talking about our own] university - our vice-chancellor's word is engagement. So we're going to have a new building directly across the street from this office. That is initially going to be - being built - because of the <u>Centre</u> for Cancer Biology that was part of SA Health, that's going to become part of UniSA. But that is going to have <u>clinics</u> for - medical clinics, like our physiotherapy and all that - because of that. But it's also going to have a science education unit, where we're actually going to try to bring science to the community. Where high school groups can come.</p> <p>So we're trying to come up with ways to engage. We're - one of our Crossing the Horizon themes, which is a - really one of the five-year</p>

<p>SA: (differences) AND Responses:</p>	<p>[Interviewee notes current VC has reversed decision to close Magill campus, create and Education precinct. This too has been reversed – will effectively be closed as is, to consolidate on Mawson Lakes and City West campuses.]</p> <p>Community and regional.</p> <p>Tensions: community engagement and financial balance.</p>	<p>themes is - okay, we have because of - really almost because of <u>practice needs</u>, we have a physiotherapy clinic and all this stuff. We now have an architecture clinic. We have a legal clinic. Should we have a business - we're - should we have a business clinic, where companies can come in and say two hours pro bono work on a marketing plan. You want more, well you pay for more.</p> <p>So we're thinking about how we can engage the different areas that this university has into the <u>community</u>.</p> <p>We're a big, local university. So how can we engage in South Australia? We have a - one of our tough knots to get across, and we're just starting on it, is we have two regional campuses. Whyalla and Mount Gambier and some other kind <u>of semi-regional entities</u>. So how do we reach out to the whole rest of the state? How do we do that without losing money? How do we do that and actually maybe help other <u>communities</u> and at least break even in the process?</p>
<p>SA: - competition - regional economy AND responses: - aligning capabilities, research - with, local, regional economy</p>	<p>Competition: universities and TAFEs – undergraduate students in particular.</p> <p>SA is a regional economy so needs regional strategies. Interviewee gives examples of US</p>	<p><u>We all fight - three universities and the TAFEs and the international competitors - over the same number of undergraduate students</u>. We all fight - in fact, I think it's really a bit sad that the State Government has got rid of the Education Adelaide, because I think we all benefited from that.</p> <p>... are we at a disadvantage because we're from South Australia, and trying to engage with South Australia? I look - let's look backward. Let's look at the US. You have states like Ohio, where I'm from. Quite</p>

		<p>states that are regional economies.</p> <p>E.g. US regional economies and university strategies. Aligning the development of capabilities with regional economy strategies.</p> <p>[Currently in SA a renewed focus on the defence industry, and university graduates and research for that sector.]</p>	<p>populist, relatively wealthy. You have states like Mississippi and Arkansas and all that. Each of them have the exact same issue. They draw both nationally and internationally, but <u>their main playground for everything they do is locally</u>. The State of Arkansas I'm sure is wealthier than South Australia, but not by much. It's more populist. But it's a - it's pretty backward. Mississippi, it's pretty - in the scheme of things, compared to New York State or Ohio or...</p> <p>... So South Australia is a regional economy. But I can see - and I can see just going - again going back to Ohio. Ohio, when I grew up, was a manufacturing economy. The town I come from has literally miles or kilometres of empty steel mills from the '30s, '40s, '50s, and were closed in the '60s, '70s. The same time, the universities there - Ohio State University, and lesser-known universities like Kent State and Akron University, have decided to build on their regional economy.</p> <p>... That's where Goodyear, Goodrich, Firestone were all headquartered in Akron. Because Charles Goodyear, who developed the vulcanised rubber which you could make tyres out of, started his company there. Okay?</p> <p>Well they - even in my - when I was young, they were already moving to the southern states in the US, with their non-unionised cheaper manufacturing. Then of course overseas, where it was even cheaper. But for a reasonable amount of time, their headquarters, their R&D people, were still in Akron. So <u>Akron University has built from that [remnants] a very strong chemistry, applied chemistry, new materials kind of expertise.</u></p> <p>The same thing has happened <u>in Cleveland. Again with the demise of all this manufacturing, they've linked in to the R&D sides of those things to help build that regional economy.</u></p> <p>... So I think - again, that's the kind of the thing that universities in places like South Australia have to do. Should - we - UniSA has a very, very good institute or group in advanced manufacturing. Now</p>
--	--	---	--

			<p>is that going to save our Holden factory? It doesn't look good now. But can we still build on those things as - the Ian Wark Institute, a lot of the things they're working on are related to the mining industry.</p> <p>So you can focus your basic research in its application to regional economic issues. We don't do enough in the wine area. Adelaide is big in that area.</p> <p>... [UniSA expertise:] ... But we do - we actually have in wastewater and environmental reclamation and all this stuff, we're one of the top in Australia. So that is being applied immediately. We have a lot of wineries that are supporting that particular thing, because wineries use a huge amount of water. It's quite dirty coming out. It's not contaminated with heavy metals, but it's a lot of things that make plants grow in rivers and stuff that you don't really want.</p> <p>... So I think universities can build into the local economy.</p>
<p>Profile:</p> <ul style="list-style-type: none"> - diverse - liberal arts + sciences <p>Change:</p> <ul style="list-style-type: none"> - Recruitment - 		<p>Liberal arts and science, leading to quantitative design.</p> <p>Changing approach to recruitment – assessing 'fit'.</p>	<p>I think honestly, having studied - I have a weird background, but I think it's - for me, it's worked well, is having <u>the literature and the kind of writing background</u>. Then having a <u>Masters of Science in pomology and viticulture, which is really horticulture, plant physiology, whatever</u>.</p> <p>So that <u>real scientific learning, experimental design and measurement and all that, kind of really prepared me to end up here in marketing</u>. Where <u>measurement is often taken very lightly or</u> - a lot of us - assumptions like the one to seven scale is a true measure. That the difference between one and two is the same as between six and seven. That's assumed in every published article that uses that...</p> <p>... at this university one of the things what we're really looking at, and we've done it already in the school, is hiring people. It's more</p>

	<p>- (beyond e.g. publications) – ‘fit’</p>		<p>than just how many publications or whatever. You want to hire someone who fits. Universities haven't really done that as well as business, ... So if you're in a science lab, you may want to hire people that have certain skills, that have certain abilities. Maybe even a personality because hey, we're going to be working 12 hours a day here. But it's never been formalised. ... The new process - and we're talking about it. We don't have anything in writing yet. But I know when we hire, you have these documents of characteristics you're looking for, and they're all measureable. How many publications, teaching scores, ability to bring in money and all of that...</p> <p>... in writing - when we write it down, we have to show that they're better on those seven categories. Not because they fit. There's no fit measure, even though we kind of know it. ...</p> <p>our HR group is talking now <u>about how we measure fit and how we build that into the hiring process.</u> So could that be, for example, personality tests? Could it be giving people tasks - and we're talking about - like I got hired as a head of school, right? I had to have an interview and all that. No one ever - and all the things about research and running things and blah, blah, blah. No one ever said can you interpret a budget? No one ever said how well do you do performance management - which is one of my biggest tasks. They didn't give me - here is three performance management reports on three staff members. Tell us how you would respond to that.</p> <p>That's what I do in my job, but we didn't even measure the ability to do those things.</p> <p>[Compare US:] Whereas in the US at universities, you literally bring people in. They spend three days and two nights. So you have a couple of dinners. You have some lunches. You see them at breakfast. You get a bigger picture of [them].</p>
	<p>Foundations (and drivers,</p>	<p>[Overall note differences may</p>	<p>My view is that originally universities were about <u>advancement of</u></p>

<p>responses):</p> <ul style="list-style-type: none"> - advancement of knowledge (has this changed?) - contributing to knowledge AND - advancing knowledge - [enquiry, investigation, exploration; discovery] <p>Drivers and responses:</p> <ul style="list-style-type: none"> - money <p>Response:</p> <p>= tension: money/funding, over quality and knowledge</p>	<p>vary by discipline. E.g. business at Flinders due to accreditation. Teaching skills and capacity influence research – they are connected, particularly in business schools.;]</p> <p>Changes pressures (funding) and government policy → this has led to a response in changes to internal funding models → with a next order response of being entrepreneurial, innovative at least in relation to sources of funds. So, being entrepreneurial or innovative is not an end in itself but rather a means of dealing with funding changes and pressures.</p> <p>[Note the connection between the changes to the foundations (say the advancement of knowledge) and pressures, such as funding.]</p> <p>But interviewee states that foundational elements of contributing to and advancing knowledge are not “mutually exclusive” with making money. This may have gone too far. [In theory this seems to be correct, or in practice is this a matter of the degree to which the money</p>	<p>knowledge. ...</p> <p>... <u>But I think the change has come - and you were saying about what pressures are - obviously they've changed the funding models. That's been the major - so government policy changes to funding have been the major pushes to force universities into thinking differently.</u> In some ways that's bad and in some ways it's good. I've found, having been in universities for 21 years, most of me thinks it's bad. But, on the other hand, it has forced them to be a bit more <u>entrepreneurial and a bit more innovative in how they source funds</u> and what they do with those funds when they get them. ...</p> <p>... [Enquiry; exploration; investigation:] <u>So I think that still universities have that focus that they're about changing how we think about things; and allowing the odd questions to be asked; and the obscure things to be asked that people perhaps coming from a business background, in a business world they don't necessarily always think of because they haven't got all the strange, unusual type of people that you get in universities. ... I would hope that the goal is still about contributing to knowledge and advancing knowledge whereas in business it's about making money, but the two aren't mutually exclusive of course....</u></p> <p>...</p> <p>So that could be just purely that that's what they need to do. But I feel like <u>we're pushed too much towards making money and not enough towards quality and advancing knowledge and discovery</u> and those sorts of things.</p>
--	--	---

		<p>making driver/response becomes a priority or the dominant priority.]</p>	
	<p>Differences: (universities):</p> <ul style="list-style-type: none"> - similar - specialisation in areas - historical, age of institution <p>[Other interviewees suggest this. DL_UNISA et al.]</p> <p style="text-align: center;">↓</p> <ul style="list-style-type: none"> - corporate; business –like [UniSA[<p>[SA:]</p>	<p>Similar – one leads for while then others follow. E.g.</p> <p>Some universities are well-known for specific areas. E.g.</p> <p>Differences are related to history and age – some aspects are changing. E.g. research at UniSA. UniSA transitioning form teaching focus.</p> <p>Also, states the categories of universities in SA:</p>	<p>We're all pretty similar yeah. There's a lot of a talk about differentiation and I think there are sometimes some leaders but then everyone follows. So particularly, for example, in the entrepreneurship space, Flinders and Adelaide I think are both talked about in business schools, are talked about wanting to be more engaged with business; more entrepreneurial; more small business, all those sorts of areas. One does it and then they all do it.</p> <p>We did it with international business. [REDACTED]</p> <p>[REDACTED]</p> <p>...</p> <p>Yeah absolutely. There are some institutions that are well-known for certain things I think but it tends to be mainly in the sciences again. So there will be certain institutions that are well-known for their cancer unit or something like that.</p> <p>[REDACTED]</p>

	'sandstone', etc.	[REDACTED]
<p>Drivers (and differences):</p> <ul style="list-style-type: none"> - accreditation - corporate; business-like 	<p>SA universities similar. In particular areas, accreditation can reinforce this sameness.</p> <p>Foundations: scholars, collegiality.</p> <p>[Interviewee indicates an almost continuum across the three SA universities: most to least business-like/corporate. Could the same be said for collegiality?]</p>	<p>... I think <u>in terms of our offerings we're all very similar and obviously, because I can talk more about business, part of that is because of accreditations</u> that we've all got planning accreditation, [RE] accreditation, finance accreditation, so we have to be fairly similar. I'm not sure how much that affects other schools.</p> <p>... I talked about in the beginning about the purposes of universities, that the <u>collegiality seems stronger at Adelaide and Flinders still.</u> ... We still see ourselves as a university and we're very proud of our history as academics and scholars and those sorts of things. UniSA does seem bit more business-like, a much more corporate model.</p> <p>Again I think there's the extremes that <u>Adelaide is less corporate, UniSA is very corporate and Flinders is in the middle.</u></p> <p>... I've heard that anecdotally from everybody I know at any university that they're all becoming more corporate.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - VCs [?] 	<p>[Is the selection of the Vice-Chancellor a change driver, or is the selection of a particular VC in response to other drivers?]</p> <p>[External versus internal influences? →]</p>	<p>I think the VC can probably have an influence, so who they get as their vice-chancellor. There's been a few well-known VCs that have done things and made a name for their university. ...</p> <p>... It's probably a bit of both. I guess my gut feeling is that it was more internal and it was them and not a response to external but I could be wrong there because not being at that level I don't know what influences them. But I think we know [REDACTED] [REDACTED] I think they're pretty much who they are.</p>
<p>Drivers (and influences): [shaping</p>	<p>Student expectations as clients, customers. [Does this therefore</p>	

<p>universities]:</p> <ul style="list-style-type: none"> - student expectations - students as customers/clients - funding → therefore, wider intake of students 	<p>indicate a 'market'?)</p> <p>[Broader calibre of students now taken – to meet growth as a result of funding imperatives.]</p> <p><u>Context question is funding:</u></p> <ul style="list-style-type: none"> - this had led to an increased intake of students, with broader admission criteria and eligibility. Possibly leading to increased support and resources. [There may be other reasons or drivers for this such as government policy to broaden intakes, such as low SES students.] 	<p>Yeah the <u>tail of students that we're taking</u> ... I think it's true, we do have a <u>bigger tail</u>. I think in some ways we've caused our own problems by catering to that <u>tail by increasing student support</u>. Not that I'm saying we shouldn't support students but a thousand different ways of helping students that it leans towards spoon feeding. <u>Therefore then that comes back to their expectations are lower because they expect to be just given the information</u>. That's a huge generalisation because there are still some fantastic students.</p>
<p>Drivers (and change):</p> <ul style="list-style-type: none"> - increased <u>bureaucracy</u>; increased workload [academics] <p>[Is this the driver, or the response?]</p> <ul style="list-style-type: none"> - quality (teaching) - quality (research) 	<p>Changes to academic (and other workload). Shift in academic focus from research and developing knowledge to say student matters, issues and bureaucracy (e.g. government policy concerning quality, TEQSA).</p> <p>Increased administration. [Impact on academic focus, and university resources?]</p> <p>[Quality(teaching), or driving compliance?]</p>	<p>... <u>increased the burden on academics and that has changed academics attitudes</u> as well. <u>Academics were very much about their research and their developing their own knowledge</u> I guess whereas now they seem to spend a lot <u>more of their time dealing with student complaints and filling out the hundred and one forms</u> you have to fill in; the <u>bureaucracy seems to have increased</u>.</p> <p>Some of that's not the university's fault, it's the <u>government's, you know all these [TEQSA] stuff</u> and all that stuff is creating a huge administrative burden.</p> <p>[Quality?] <u>I think it's been a red herring</u>. I think in some ways it has been detrimental. There's been a huge focus on quality assurance which means that any poor quality, which there's always going to be</p>

	<p>Quality (research)?</p> <p>- did not improve research quality.</p> <p>- negative effects on journals →</p> <p>[Had the effect of undermining emerging journals, which would have been appropriate to publish emerging academics.]</p>	<p>poor quality, is highlighted and that becomes the focus. All the high quality stuff kind of just gets saying okay well that's alright, you're doing a good job but carry on. But it doesn't become the focus.</p> <p>... <u>It does drive us towards compliance.</u> [Rather than actual quality.]</p> <p>That's just all about teaching quality and administrative quality but <u>there's research quality, so the ERA, all that nonsense, caused huge problems I think. I don't think it did anything to improve the quality of research.</u> ...</p> <p><u>It killed off a lot of C-level journals that probably would have become very good journals...</u></p> <p>...</p> <p>They just needed time. So it kills off all the emerging journals because no one will publish them now. So it makes competition for getting in the higher journals stronger so it means it's much harder for emerging scholars. So all of a sudden it's making the bottleneck tighter and I don't think the stuff coming out the top is any better than it ever was. There's always been variable quality, hopefully more good quality than bad.</p>
<p>Drivers (and change):</p> <p>- policy – research impact</p> <p>→ response:</p> <p>- research – into consulting</p>	<p>Definition of 'impact'? How do we measure impact?</p> <p>Need care not to turn research into consulting.</p> <p>[Impact over what timeframe?]</p>	<p>... we would like to think that much of our research has impact but some of our research is not going to have impact for 20 or 50 or 100 years and therefore it's not bad research. ...</p> <p>So if I could do anything I won't get paid for it I would do high level theory which has no practical implication at all at present but eventually it will. So yeah I don't think we should be obsessed about measuring impact but I don't think we should ignore ways which we can measure impact but we have to be broad in our thinking about it. ... So you've got to be sensible about what you mean by impact.</p> <p>... <u>We have to be careful that we don't turn research into consulting</u></p>

		<p>this might be an interesting circumstance to pose under this PhD – preparedness on the university.]</p>	<p>analysis, it was more about ...</p> <p>... It was, <u>very operational</u>. In fact I took a decision in the end to only become operational because we had a faculty strategic plan; we had a university strategic plan. So I said let's not have a school strategic plan, let's just have an operational plan ...</p>
<p>Change and response:</p> <ul style="list-style-type: none"> - VCs – short-term - technology effect on teaching – approach to teaching - funding – effects what is researched <p>- teaching focussed roles (response?)</p> <p>Change (tension):</p> <ul style="list-style-type: none"> - traditional values – newer universities 		<p>Short-term. Core activity of universities has not changed – research and teaching – the approach might have changed.</p> <p>[Context question:] So do you think these sorts of responses there've been any tension between the very foundational things versus whether it's proxy</p>	<p>... and it's a bit like politicians I guess. VCs have fairly short terms and so they tend to be a little bit short termist in their visions and the new one always wants to change everything. That comes back a bit to the comment about VCs.</p> <p>Having said all that, as I think about it, the truth is that for any individual academic they still come in, they do their teaching, they do their research. Their life has changed around them but their core activity hasn't really changed. <u>What might have changed, what they do in the classroom might have changed and their approach to research might have changed but they still teach and research.</u></p> <p>... It probably has affected what they teach so much as how they teach it. So there's much <u>more technology</u> and trying to fit things in the classroom. It might have <u>affected what they research because of funding, because of what gets funded</u>. There is some change though because now most universities have <u>teaching focussed or we call it educational focussed positions</u> which didn't exist before. We always had research only posts, normally grant-funded posts but now I think probably about - my guess would be about 60 per cent of universities have some sort of teaching only or education only.</p> <p><u>... I think there is tension on it and I think particularly for the newer universities it's a bigger shift away from traditional values. There's no doubt that the traditional role of the university is under threat. I just don't think it's critical yet</u> but - if you talk to any long term academic they'll tell you it's not like the good old days which may</p>

	<p>quality issues or the vagaries of funding changes; significant or material tensions between the foundational values or objects of the university versus how we've had to respond.</p> <p>Shift is most notable with the newer universities – shift from traditional values.</p>	<p>just be age but I think that's probably something in it that it is different. I mean I've noticed the difference in 20 years, a bit of a difference, but I think if you went back 40 years which we have some staff here who've been here 40 years it was a big difference.</p>
<p>Change:</p> <ul style="list-style-type: none"> - balance <p style="text-align: center;">↓</p> <ul style="list-style-type: none"> - tension: teaching, research, admin and professional service, community service 	<p>Role to achieve balance as Dean, in both directions. E.g. not to put research above teaching.</p> <p>Balance across the unit (school). E.g. →</p>	<p>... When I was a dean I <u>spent a lot of time trying not to lose some of the good things</u> about the old academics who've been here a long time because there was a lot of negativity towards them; that they wanted it to be like the old days; that they didn't want to do as much teaching. They always put their research above their students which is seen as bad but they also brought a huge intellectual something to us which I never wanted to lose.</p> <p>it was <u>balanced across the school, not across individuals</u>. So I was never a believer in force, which used to be forcing everyone to do all four areas. We always had <u>teaching, research, admin and professional service, community service</u>. So I think having education-focussed people is a good thing and having some people focus more on research is a good thing, and having others that do everything, as long as you have that balance across the school. You don't want a school full of great researchers and crap teachers or vice versa.</p>
<p>Response:</p> <ul style="list-style-type: none"> - public, society, community contribution 	<p>[Entrepreneurial, innovation:] e.g. technology in the classroom, as innovation – but constrained</p>	<p><u>I think in business and probably in some other disciplines it's about being more exposed to the public and not in your ivory tower</u>. So it's about getting out there and finding out what's going on in the <u>world and making contribution</u> to that which in a business school it's</p>

	<ul style="list-style-type: none"> - technology (in the classroom) - support, resources → Driver: - [constraining] driver of funding 	<p>by funding, resources.</p>	<p>by getting involved in business projects for business. But they don't necessarily just mean that. It can be <u>all sorts of community</u> - I mean part of the university's role and I guess the first question is part of the university's role is to give something to the <u>community or society</u>. One of the things it gives is good graduates but it gives a whole lot of other things as well.</p> <p>I think one the other way they can be innovative though is to try and be <u>smarter about what they do</u>. This comes back to <u>technology in the classroom</u> and those sorts of things that I think there are lots of opportunities out there that a few individuals are good at but as an institution we're not good at supporting. I think that comes back to the <u>funding problem again</u>. <u>To make those sorts of changes we need support; we need resources; we need time; we need to go on a learning curve, those sorts of things which are quite hard.</u></p>
	<p>SA:</p> <ul style="list-style-type: none"> - differentiation – limited - competition – small market – students and staff - limited economy: head offices, industrial base 	<p>3 universities – no differentiation?</p> <p>Negative: competition in a small state, competing for same students, same staff. Head offices, limited industry base.</p>	<p>It's interesting because I've had a number of debates with senior people in the university about whether three universities is too many for a town like South Australia. When you compare it to say Perth, who've got five, there probably isn't too many. But it might be too many with all three of us doing all of the same things. There's absolutely <u>no differentiation at all</u>. ...</p> <p>So that's the downside I guess is that the downside is the competition because it's a small state and because all three universities are similar that we're competing for the same students; and the same research funds; the same staff, all those things that make it quite hard. We're always poaching each other's staff and poaching each other's ideas and students.</p> <p>The good side of it though is that it's small so we don't not - none of the three universities are massive mega universities with millions and millions of students which I think improves quality. In terms of the bit about getting out in the community it does make it hard being in South Australia. There are <u>no head offices here or there are</u></p>

	<p>Profile: and Foundations:</p> <ul style="list-style-type: none"> - first in family to university - working class - freedom and autonomy ... - knowledge (develop) - education is public good - not fee paying - policy – Whitlam <p>Drivers and change:</p> <ul style="list-style-type: none"> - policy – low SES - ‘free’ education – Whitlam government [response: access programs] <p>- students in employment</p>	<p>Students forced into paid</p>	<p><u>very few head offices here in a business field or I suppose in all fields. We don't have a strong manufacturing base.</u></p> <p>Probably my <u>working class background because I come from a very poor background, first person ever in my family to go to university</u> in my extended family who are mostly in England. ... So it's made me really appreciative of the privilege of being able to go to university and to work in a university because as much as a whinge and moan about the <u>workplace it's a fantastic place to work because of the freedom and the autonomy.</u> ... I can have an opinion and I get paid to learn. That's what I always say, I get paid to learn, to increase my own knowledge which is absolutely fantastic. So I think that that belief that I'm living a life of privilege certainly informs my views about - well I certainly believe that universities should be better funded. I believe that education is a public good.</p> <p>... I think education is a public good. I don't think it should be a fee paying. I think it should be accessible to every person regardless of their social status. I would never have been able to come if Whitlam hadn't changed the rules for universities I wouldn't be here. Who knows what I would be doing but I wouldn't have ever gone to university.</p> <p>... {Flinders University:] ... <u>So I like it when I get - Flinders also has quite a good access program. We have a lot of mature age and a lot of low socioeconomic - we already met our quota when the labour government brought in the quota for whatever it was, 40 per cent I think low SES. Flinders was already there.</u> So I've met a lot of students who are similar to what I was and I really like talking to them and saying you can be a professor if you really want to.</p> <p>... I think that's one of the things that's changed. We were talking about the student and the tail, that's the other pressure on students</p>
--	--	----------------------------------	---

	employment [?] - risk	<p>is that they now feel like they have to work in order to come to university; or perhaps they choose to, I don't know.</p> <p>But between going to work, coming to university, having their social, their Facebook and all those other things that they do, there's not much time left for - I used to love, I mean I was never into student politics but when I did my first degree which was in the education, I spent a lot of time on campus at rallies and seeing whatever march was going on and listening to others talk about their views. You just don't see that as much.</p>
<p>Foundations:</p> <ul style="list-style-type: none"> - knowledge (existing and new) - discovery - education - enquiry of mind: for own sake AND for application [to graduates] - promoting through community <p>Foundation and <u>differences (organisation)</u>:</p> <ul style="list-style-type: none"> - societal benefit - objectivity - knowledge for its own sake - independence 	<p>Cumulative definition of elements. Elements comprising knowledge/discovery/enquiry; application of new/existing knowledge; education; enquiry importantly "for its own sake" and application – all for 'societal benefit' [Does this equate to public good, as described elsewhere?]</p> <p>Societal benefit and objectivity are differences from other organisations.</p> <p>Other key organisational differences: knowledge for its own sake (which is also a foundation), and independence, WITH the use for society.</p>	<p>... it's really about <u>knowledge, discovery</u>. <u>Application of existing and new knowledge to the betterment of the community</u> we're in and more widely - particularly globally. That consists of certainly in <u>education</u> and the educational role. But <u>promoting the enquiry of the mind</u> and - for its own sake, but also its application by graduates. But clearly also a major research role in order <u>to discover</u>. But then ensuring that that is <u>applied or made available to be applied, and certainly promoting that throughout the community</u>.</p> <p>... I guess why is that different to perhaps other organisations is clearly - I think <u>it's primarily about societal benefit</u>. I think we'd all have the view that there's supposed to be some <u>objectivity</u> about it.</p> <p>... Or rather that <u>it's knowledge for its own sake</u>, despite what I've said about application and so on. That there aren't major other agendas, which a whole range of other organisations may have or have to have, including industry but also government and so on. So there's <u>an independence which relates, I think, to the pursuit of knowledge and its use for society</u>.</p>

<p>Differences (other organisations):</p> <ul style="list-style-type: none"> - government research organisations: government priorities - society's problems (as determined by government) - universities still influenced by government and other external agendas <p>←→ DRIVERS:</p> <ul style="list-style-type: none"> - government policy – research priorities 	<p>Compare government research organisation: government strategic priorities/'agenda', guided by <u>political</u> concerns. Society's problems as perceived by governments.</p> <p>[Other external agendas would include industries and sectors of various types. E.g. at present Defence; Health, Covid vaccines.]</p> <p style="text-align: center;">↓</p> <p>Universities are still influenced by government and other external agendas – national strategic priorities in research.</p> <p>[Note:] There are linkages between these priorities and funding, resources. So, indirectly this is a form of policy, funding driver.</p> <p>Government and industry agendas shape and direct research.</p>	<p>I think with <u>a government research organisation</u>, it's - there's - I think there always has been to some extent, but certainly perhaps increasingly, the need to address <u>strategic priorities or other priorities of particular governments</u>. So there is more of an agenda, which I don't have a problem with. But that could, for example, mean addressing major problems that our society faces and the government of the day has put particular - its own particular imprint on that. What it wants those priorities to be, which may or may not be guided by advice from universities and others.</p> <p>But - so there's more of an agenda that's guided by political concerns perhaps and other concerns perhaps.</p> <p>... I think universities' agendas, or that of their academics - and certainly where senior management perhaps directly or indirectly encourages them or influences them to go - is influenced by government and some of the same external agendas. I think - for example, for many years, we've now had stated national strategic priorities in research. Or stated national priorities in terms of what are the big problems ...</p> <p><u>Those priorities also feed into resourcing. So if you were conducting a research - discovery research or applied research, you have to obtain those funds. There's certainly a view that addressing those strategic priorities might increase your chances of funding.</u> In practice, it's probably more the case that it's addressing the priorities as seen by your peers in research, is more likely to get you funding because they're still making the decisions. After the event, an analysis is provided to government as to how the funding was</p>
---	---	--

		<p>allocated according to the national strategic priorities.</p> <p>... all the <u>major funding schemes tend to have some funding put aside for strategic priorities</u>. So we are influenced by external agendas driven by government or government bodies - controlled bodies, I guess. Similarly, if you're looking at funding for applied research, you have to have industry partners or at least industry priorities.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - research – outputs - research funding - publications - fields and disciplines <p>[Publications linked to funding.]</p>	<p>Research outputs and funding:</p> <p>The linkages between all fields and disciplines with respect to research and research funding, are affected by the requirement to achieve research outputs. All output metrics now connect to funding – even publications affect research funding.</p>	<p>... Some - and by that I mean that even though they don't bring in substantial external direct research funding dollars - through ERA, for example, and the SRE funding line. That's no longer the case. <u>They now actually have to - through at least highly cited publications, but I think even to some extent with dollars - direct research funding. They now have to perform to more like the other discipline areas, such as in health sciences and sciences.</u></p>
<p>Differences (universities):</p> <ul style="list-style-type: none"> - culture? - <u>research intensiveness</u>/research active (academics) 	<p>This also includes the expectations of academics about be research active and being successful.</p> <p>[Again, could this be represented as a continuum of research intensiveness, as one of the dimensions of a university. Possibly, the other could be business-like propensity.]</p> <p>[Are the differences still significant when normalised for age? See DL_UniSA and others.]</p>	<p>I think <u>there are very great differences</u>, yeah. So the GO8 and a number of the other universities I think have a different culture. That is created by their <u>research intensivity</u>. The way academics see themselves and perceive their roles and how they should - and what they perceive as success. I think in those - in the GO8s and universities like them, the <u>majority of academics would expect to be research active to some extent, and research successful.</u></p>

<p>Differences (universities):</p> <ul style="list-style-type: none"> - research intensiveness (cont.) - teaching and training focus - role of research and discovery – associated culture 	<p>Newer universities tend to be teaching and training focussed – high teaching loads.</p> <p>Is there a 'spectrum', ranging from research intensive to teaching intensive, and presumably balanced in between? [Is the same as the sort of 'continuum' that we have already discussed?] [In more recent times there has been discussion about universities with high teaching numbers, particularly international students, being able to subsidise research with student income. Is this a shift away from the view that research intensive universities have better access to funding and resources overall?]</p>	<p>... in terms of being in the top 10, 20 per cent <u>research successful, as they still expect to aspire to that, or have some of those same attributes at some stages of their career. Versus universities, which have very low research activity, which are primarily about education - or educational learning and teaching and training.</u> I think the newer universities inevitably tend to be like that.</p> <p>If you look at <u>South Australia, I think Flinders and University of Adelaide tend to be at one end of the spectrum.</u> University of South Australia which, coming from a training college kind of background historically, has - until recently has struggled.</p> <p>... Now they've brought people in and they have had a few very good people. ...</p> <p>But teaching loads are incredibly high. There's a different attitude, I think, to training and so on. ... I think the key difference is the role of research and discovery within that. I know they value it, because they're seen to have a prestige value and they've brought in a lot of researchers, particularly recently. But I think the culture is quite different when you talk to people.</p>
<p>DRIVERS (and influences):</p> <ul style="list-style-type: none"> - ↓ resources (staff and funding/research) 	<p>Reduction in resources, staffing and research funding – includes salaries and direct research funding. That is, reductions in real terms.</p>	<p>The big drivers? I think <u>contraction of resources, so there's been a huge contraction in the level of resourcing.</u> That's because of the failure to increment [EB] - a related increases in salary. The failure to similarly do that for <u>direct research funding in - certainly in the health sciences area.</u></p>
<p>Responses:</p> <ul style="list-style-type: none"> - efficiency with resources - business-like (investments) 		<p>... But universities - and they vary I'm sure to a great extent across the country. Certainly this university could have been far more <u>efficient in how to use its resources.</u> It could have been much more rational, <u>business-like in its approach to what it should prioritise and what it should invest in.</u></p>

	<p>Changes:</p> <ul style="list-style-type: none"> - expectations: government, industry/community - → type of graduates (lifelong learning) <p>Drivers:</p> <ul style="list-style-type: none"> - competition – rankings - policy – access; low SES students - (change) socioeconomic factors <p>- accountability; prudential management – government policy (connected with these additional elements)</p>	<p>Expectations by stakeholders in terms of the type of graduates (or the type of product) – someone with lifelong learning capabilities. This is in contrast to product with immediate payback e.g. professional degrees.</p> <p>[Dawkins; Vanstone – ‘market:] resulting in increased competition, with rankings becoming more important.</p> <p>Other policies to increase access to universities e.g. low SES students, other disadvantaged students.</p> <p>Government impositions leading</p>	<p>... Other big changes? Clearly <u>government and apparent industry/community expectations</u>. Particularly the <u>type of - the graduates that are produced and their fitness for purpose</u>, as it were. So it's almost an ideological thing I guess, that you're <u>producing someone who's capable of long life learning</u>. As opposed to an immediate effective product, if you take the professions or <u>professional degrees</u>. ... So I think at least there may have been changing expectations on the part of government industry, as to what graduates should be. Whether they're just made more explicit and whether they're concerns are valid of course, is another - a whole other issue.</p> <p>There have been other different special government driven pressures, I suppose. <u>International rankings, competitiveness</u>. Why do we need Australian universities, if we can just buy it in? Because ours don't rank that well. That was just - should of - some of the views that have been put forward by government. With the previous government wanting universities to be <u>more accessible, allow greater access by disadvantaged groups...</u></p> <p>... <u>low socioeconomic class students</u>. So those are some of the things in the last 10 to 20 years I guess.</p> <p>There's also been a bit around <u>accountability in a prudential sense or government sense</u>. You've seen it with particular universities, things have blown up. Councils and chancellors wanting to be very - and it's even at this university. <u>Run a university as though they were a managing director</u>.</p> <p>... [Government influence:] I think they've been influential in - yes, in two ways. ... <u>requiring additional - a lot of additional resources</u></p>
--	---	---	---

<p>- 'quality' agenda (government)</p>	<p>to the use of more university resources. Government quality agenda, which has also diverted resources without necessarily resulting in improved quality.</p>	<p><u>internally</u>. Without - so they haven't been resourced. They've been <u>quality agendas</u>. Government hasn't provided the dollars to support these at all, which has resulted in diversion of resources, often for ticking boxes, not really addressing the quality agenda.</p>
<p>Responses (to drivers):</p> <ul style="list-style-type: none"> - transparency (, lack of) → - resource allocation & performance - centre and periphery - (accountability) 	<p>Lack of transparency of resource allocation and performance – lack of clarity of central resources.</p> <p>Centralisation – not transparent.</p> <p>Example: poor allocation of space resources.</p> <ul style="list-style-type: none"> - poor accountability 	<p>[Accountability, expectations:] I think - if you talk about this university, I think we're only maybe just starting to deal with it constructively. I think before then, there's been a <u>complete lack of transparency</u>, I think, in terms of resource allocation and <u>performance</u> - and you could talk about <u>centrally versus at the periphery</u>. There's no transparency about what the centre does with its resources. Its clever ways of snakes and mirrors. <u>Having a lot of consultants so it can say its staff numbers</u> haven't gone up, which they have anyway.</p> <p>But for example, in health sciences - so it's really only the last two years that the university had any kind of organised approach to reviewing space needs and so on. That they've spent hundreds of millions on buildings, based on business cases or no business case or business cases that were utterly flawed, as has been shown since. Eighteen months ago, they discovered that the Faculty of Health Sciences had the greatest space needs. ... So that's the kind of thing, I think - that's an <u>example I think of the poor performance and lack of accountability centrally</u>.</p>
<p>Responses and changes:</p> <ul style="list-style-type: none"> - corporatisation - systems - efficiency 	<p>Corporatisation can be driven by the perception that academics are uncontrollable.</p> <p>Drive to be more efficient often poorly enabled with poor system implementation.</p>	<p>There is an attitude that academics are essentially a criminal class of wastrels. That really - when you see how - if you see corporatisation in different areas and so on under way or taking place, it always starts from that assumption largely. ...</p> <p>In terms of becoming efficient - this university must have been the last in the country to become electronic, I guess, in a sense. So at least they got on with it, but they made the most appalling decisions</p>

	<p>improving <u>performance and accountability.</u>]</p> <p>- efficiency (centre) - processes</p>	<p>- restructuring (organisation) [Example: no evidence/arguments that it works.]</p> <p>Restructuring for improve efficiency – mixed results.</p> <p>Inefficiency and lack of transparency – suggests reduce centre by one third, improve processes. Lot of process and poorly designed. Complex.</p> <p>Responses: Response reflects university management is disconnected</p>	<p><u>The restructures we've gone through - forming schools, for example. Also no signs that that really improved some of the difficult areas, in terms of performance and accountability.</u> We're now looking at doing more of that. But - so Sciences is looking at contracting, reducing its number of schools without retrenchments, in order to maintain services and so on. But I've never seen the detailed arguments as to how they're actually going to achieve that.</p> <p>...</p> <p>So there are limitations, in some but not all areas, in how restructuring further could help. In some places, perhaps restructuring did enable efficiencies to be developed. In others, it just hasn't happened.</p> <p>How else has the university responded? I think - to me, it - there are huge areas <u>of inefficiency and lack of accountability</u>, as I've talked about, in the university. Some are in academic units, but I think huge amount of it is centrally. If we were ruthless, if we had senior management that would address that, you could get tremendous savings. I believe you could <u>cut a third out of the centre</u> and we wouldn't see any difference at the periphery. Probably see an improvement. It would force <u>streamlining of processes</u>. We've got a lot of processes, which are just - I think they're very poorly designed. ... <u>unnecessarily complex</u>. Don't make sense. They fail to understand how they don't make sense, centrally. It sort of permeates HR, finance, certainly T&E right through. Whether it comes to - whether - it ranges from delegations, if you're away, through to escalation of approvals, that type of thing. ...</p> <p>I think what it is, is that they actually have <u>little or no grasp of the academic enterprise</u>. More than that, they think they're the</p>
--	---	--	---

	<p>from and has little understanding of the 'academic enterprise'. No strategic approach or systems. E.g. UA</p> <p>Same experience at other universities: →</p>	<p>university and we're a problem. We're an irritant - an irritating problem that costs a lot of money. ... So it's a lack of understanding. the university's had <u>no strategic and no system for managing space effectively and flexibly and dynamically</u>. While we've done it within our school, we couldn't even do it within our faculty. So I think it is a necessary thing. ...</p> <p>Their argument is that unless you charge for it, you won't change behaviour. I have some sympathy for that. The concept is that all these space costs currently that are carried centrally, the income that pays for that will be distributed out to schools. So it should in fact be neutral cost wise. I won't believe that. I don't believe that.</p> <p>... [But the experience at other universities is that they didn't necessarily - haven't done necessarily a good job. Robert Saint, who's coming as the PVC Research from Melbourne - University of Melbourne - said just don't do it. But essentially, UNSW brought it in for a year and then abandoned it, because of the damage it was doing. The University of Melbourne lost research groups. Some faculties had to absorb costs at the faculty level in order to protect researchers. At Monash, they've built a lot of new buildings, great infrastructure and so on. But for a long time, they've stood half-empty because no one wanted to pay...]</p>
<p>Responses: [UA]</p> <ul style="list-style-type: none"> - strategic input - academic input 	<p>UA VC seeks academic input on delivery of strategic initiatives. E.g.</p>	<p>I think - the one thing I would say is what I've found quite interesting is with the new VC, what I'm seeing is - well certainly he's been everywhere. He's very accessible. Does seem to listen. But interestingly enough, <u>he's directly asking faculty, executive deans, heads of school, ...</u> . <u>Through executive deans, he's asking schools to report back on specifically what they're doing in relation to various Beacon initiatives</u>. Having to put forward very specific things. What are you doing? What are the new things you're going to be doing? What are you going to stop doing? We're having to be very specific</p>

		<p>- ↑accountability</p>	<p>about what actions we're taking to deal with the current financial exigencies. ...</p> <p><u>You can see the dots being joined up</u>, and in a way that I've not seen before. To me, in a way, that's making us all take a bit more notice and being a bit <u>more accountable</u>. So it will be interesting to see how that pans out. That's been quite interesting.</p>
<p>Foundations and responses: - tension?</p>		<p>Tension: foundations and responses [/drives]:</p> <p>E.g. pressure to graduate HDRs but are they capable of high quality independent research? – that's questionable – real enquiry?</p> <p>Basic research is losing to immediate translation.</p> <p>Pressure relates to dollars and funding.</p>	<p>I think - yeah, it's a good question. I certainly think, in terms of HDRs and postgraduate training - PhD, [higher] degree by research, not coursework - we've been under the longstanding pressure to get the numbers in. When they are dealing with very different cohort of people to what we had previously. There you - once you've got them enrolled, you then have to get them completed. You ended up writing, to be frank a lot of PhD theses.</p> <p>So I think, in terms of what were universities supposed to be for, these people are still doing research. <u>They're still being trained. But are they capable of independent research of quality, a real enquiry at the end of it? I'm not convinced. I guess that might have undermined things a bit.</u></p> <p>In terms of research, it's a good question. If you - I think most researchers are able to ask the fundamental questions. Get enough resources, one way or another, to at least do some novel inquiry research, which isn't necessarily what you can get immediately funded by government. But you can get around it I guess to some extent. I would say, however, that's changing in my view with NHMRC. <u>I think basic science, fundamental research is - has been losing out for a number of years now. Unless there's an obvious clinical imperative or more immediate translation, you're going to struggle.</u> Unless you're at the very, very top.</p> <p>I guess we're starting to see pressure there. <u>I think the pressure to bring in the dollars is huge, as it always was.</u></p>

		<p>Pressure on research time, growing amount of time spent writing research h applications, which is taking time from actual research – this is disproportionate.</p>	<p>...</p> <p>But we spend <u>so much time preparing grant applications that don't get funded and so on</u>. It's a huge percentage of people's time. That's been well canvassed out there. Is it detracting from the fundamental mission? I think - perhaps the <u>emphasis is more to the application and less to the discovery</u>. That probably goes in cycles, but I think that is happening.</p> <p>I think the - there's been a huge change in the amount of time we have to devote to the actual - to actually undertaking research, research training, ... learning and teaching. Because <u>in a research active faculty or discipline areas, we just spend so much time just writing applications</u>. Now that's a creative process and so on. But it's disproportionate.</p>
<p>SA:</p> <ul style="list-style-type: none"> - size (institution size) - proximity - research concentration of capacity - resources (,access to) 	<p>SA:</p> <p>Lack of scale affects viability. Distance from East coast is a limitation. Limited access to resources including technologies is a disadvantage.</p> <p>Lack of concentration and capability (research) is a disadvantage.</p> <p>Constrained resources – competing for national centres.</p>	<p>Oh I think we're disadvantaged by the size of our institutions. I think we should have probably one university, because there's viability, robustness, comes with that. So it's more size, not so much location. I thing geographically, being away from the East Coast and really away from a greater concentration - I'm thinking here in terms of research. A greater concentration of research capacity and special - the special capacities and so on.</p> <p>Again, it's probably - I can speak more from our sort of discipline, sciences and health sciences. We're desperately trying to just find ways to provide the basics of the new, hot technologies and disciplines, [Bar informatics], genomics, all of that kind of thing in the state. We just don't have access to it, like they do in Melbourne, Brisbane...</p> <p>... my main concern probably remains in an era of <u>constrained resources, there are always people pushing to have a few national centres to concentrate funding nationally</u>. That inevitably means the big three states, and that is Victoria, New South Wales and</p>	

	Limited SA Government investment (even when State economy is performing reasonably.)	Queensland. We're constantly getting undercurrents of that. ... We've always had little investment. Even when the economy was going reasonably here, <u>State Government investment</u> has been minimal.
Profile:	<ul style="list-style-type: none"> - research focus - first in family to graduate from university - not an academic sense of entitlement 	... my view of academia has not been a traditional one in a sense, I guess. <u>Very research oriented, research training oriented</u> , that's where my own interests lay. Interested in good quality teaching - learning and teaching, but never been a primary thing. I've not - coming from University of Queensland, the <u>first person in my family to go to university</u> - then all the rest followed, including my parents. But it was a new - a very different thing, so <u>not a traditional view of academia or a sense of entitlement</u> , I suppose.
Responses: <ul style="list-style-type: none"> - corporatisation - university mission - cross-subsidisation	<p>Corporatisation of universities is acceptable if it means "being <u>systematic, organised, accountable and efficient</u> to deliver on the <u>fundamental mission of universities.</u>"</p> <p>[So, corporatisation may be good as a means to an end provided that that end is the mission of universities.]</p> <p>Cross-subsidisation is acceptable BUT must be explicit, and every effort is made to for each activity to fund itself.</p>	<p>... . I don't have a problem with <u>corporatisation of universities</u>, if they were just good at doing it and in using it. I just see it as being <u>systematic, organised, accountable and efficient to deliver on the fundamental mission of universities</u>. Got no problem with that. It's when they just do it really badly and run round talking about learnings and a whole lot of other hideous corporate speak, with no meaning behind it and no actions.</p> <p>Well I think the - I've got no problem with cross subsidisation. I just like it to be very explicit and for those who are being cross-subsidised to know it and be making every effort. Be supported in making every effort to make enough money to support their activity.</p>
Foundations:	Describes a tension between the	... it's the <u>combination of enquiry but also ownership of - a series of</u>

		<p>'Principles' = enquiry, knowledge; standing in discipline, understanding of.</p>	<p>...knowledge and standing in the discipline. Familiarity and standing. Understanding of the discipline.</p>
	<p>Differences (other organisations):</p> <ul style="list-style-type: none"> - university research: not for income object, not business - public good driven by enquiry - other: tends to be more applied, translation - teaching (uni): depth, capability to respond to <u>new problems</u> 	<p>Research and other organisations:</p> <p>University research – not necessary for payment, income; not business – for public good (via curiosity)</p> <p>Other organisations, such as CSIRO, closer to the applied, translation end of research.</p> <p>Teaching: ability to respond to new problems, not limited to the application of exiting knowledge to familiar circumstances.</p> <p>- it is a different sort of capability.</p> <p>Not the same as competencies:</p>	<p>... there are other people who could do the same thing and there are - but I think what distinguishes it is the brief to be - to <u>not do research for the sake of earning income or generating a living from it or running it as a business</u>. So it's not just research which is driven by people's willingness to pay for it. It is <u>research which is driven by curiosity or a perception of what the public good is</u>. That has to be tested of course and it's tested in a whole bunch of ways like what is - over time what is the quality of the work, what's its impact, that sort of thing.</p> <p>So even <u>CSIRO</u> has some of these characteristics but fundamentally they have to - it seems to me they're <u>much closer to the applied or translation end</u>.</p> <p>... [teaching:] that it's different because it's <u>not simply transfer of existing body of knowledge which you can use in circumstances with which you are familiar</u>. It's <u>developing your ability to handle new situations essentially, so it's giving you a level of depth to be able to respond to new problems or think about new things</u>. ... Well the real test I think is can you resolve a new situation. Oh no - okay, both. Can you think completely differently about an existing situation that nobody's thought about it before and see it in a new way and solve a problem in a better way? Or when something new comes along how do you react to that and do you have a framework for responding to that? But I think they're two sides of the same capability.</p> <p>... the way I think about a VET system is it <u>delivers competencies to a very high degree and it's a joy to watch</u>.</p>

<p>Differences (universities):</p> <ul style="list-style-type: none"> - teaching: programs; employment pathways - research (can be discipline dependent) - research differentiation via institutes (e.g. in business schools) – see reasoning: 	<p>Career orientation, strategies, specific programs, employment pathways are points of difference.</p> <p>Research: where teaching requires common skills and expertise, that can shape the breadth of research, or limit it. In such units, differentiation may be achieved through institutes.</p>	<p>... I think there are material differences in the way that people - let's talk about teaching first. I think the <u>different philosophies and strategies, what people are offering to deliver, the degree of career orientation for instance. Specificity of programs for instance, pathways to employment for instance.</u></p> <p>Well we all tend to try and differentiate ourselves in what we're famous for. So the guy who's running <u>the business school at the moment says in business programs 85 per cent of what we do has got to be the same because they're the fundamental things</u> that you have to have in a business program. That means we have to have people who can teach in those areas and that means their research is in those areas. <u>So if you look across the schools there's not a lot of difference.</u> They have marketing groups and they have accounting groups and they have management groups and so on. ... [Research differentiation in 'business' schools:] the university does at that level around the <u>institutes for instance. So I'd definitely say they're not homogenous and real</u> - there being real differences in what's offered.</p>
<p>Drivers:</p> <ul style="list-style-type: none"> - [1] internationalisation (students) of 'community' - internationalisation (research) – slower - technology - [2] policy and regulation: e.g. quality (AQF; TEQSA) 	<p><u>[Is internationalisation of students a driver, or a response to the driver of insufficient funding? And this is a form of diversification of revenue, as a response.]</u></p> <p>Being entrepreneurial is perhaps a means to achieving internationalisation, or is internationalisation the result of</p>	<p>In this university the <u>internationalisation of the community has been a huge driver of change</u> - a positive one I think. So over the last decade <u>the massive growth of international students on campus and the delivery of programs for them.</u> Much more slowly, the internationalisation of research as well. ... So we had international strategy just basically driven by teaching.</p> <p>...</p> <p>Well I think there were some individuals who saw - entrepreneurial people who saw an opportunity to generate some more resources in a way which was consistent with the mission.</p>

	<p>- [3] technology</p> <p>Responses:</p> <p>- internationalisation → late action to build relationships/collaborations</p>	<p>entrepreneurial thinking?</p> <p>Quality policy and regulation has been allowed to drive strategy – seen as negative. Technology impact in terms of delivering teaching.</p> <p>Caution concerning pursuing actual strategies to improve quality, rather than mere compliance.</p> <p>Technology changing the way that teaching content is being delivered – regards this as an importance defensive driver. Important to respond to this well.</p> <p>Internationalisation is a very competitive market – more than just pursuit of students – requires relationships/collaboration.</p>	<p>I suppose other <u>big drivers have been in technology and in regulation</u>. So in regulation there seems to be an increasing amount of things to respond to. AQF and TEQSA for instance and it really concerns me that we let our strategy be driven by that, rather than following a strategy and then having out of that fallout capability to respond to the regulatory structures. ... that's been a huge cultural challenge for us, so there's a real risk that we - as I said we let ourselves be <u>driven by compliance rather than by good strategy</u>. We can talk about this further if you want to, ...</p> <p>... but the third big driver change I think has been the technology and the way of delivering content. So it's been a challenge to us to realise that our strength is not simply in content, but the delivery of the content and the manner of its allocation. But if we don't respond to that we'll be dead meat. ... I think on technology it's defensive. I think on research - international research, I think it's defensive as well.</p> <p>... [Internationalisation:] We were too slow to realise that internationalisation involved more than just having students come here. That we had to - that eventually that market would become much more <u>competitive and our future international position would depend on a whole bunch of relationships we had</u>, not just our ability to bring students into Australia. I think there wasn't enough strategy on that early, early enough on. We're catching up now. There's a race to <u>lock in collaboration</u>. But again we should be doing it in areas where it complements or builds the capacity we've got, not just for the sake of having 50 bilateral partners or something.</p>
--	---	---	---

	<p>DRIVERS:</p> <p>- international market</p> <p>- government policy</p> <p>- funding/government policy (connected)</p>	<p>In response to regulated domestic student market pursuing international market – very exposed to the international market.</p> <p>Context query – is government policy driver or response? Cause or effect?</p> <p>Internationalisation and government policy are inter-dependent. Policy responding to the international market – e.g. national reputation protection.</p> <p>International students’ revenue permits a cross-subsidy business model to fund other things such as research. Research grants in Australia do not include infrastructure funding, unlike the US model. <u>Can it be concluded that the Government’s funding model has itself been a driver, a key driver for this chain of functional responses: internationalisation, pursuit of international student market, and cross-subsidy business model</u></p>	<p>Just let me check, what are the drivers. So we talked about the international market and now we're also responding - <u>that market - so what happened was we were operating a regulated domestic environment. Yes we had international students but then they surged so now we're much more exposed to the market.</u> Now the market's changing on us again because the home countries are more competitive, third countries are more competitive. So now we're responding again by trying to figure out new ways of doing things.</p> <p>... [Government policy:] Actually that's good, that's an interesting observation. So government policy might well be a response to that internationalisation of the market. So you could argue that yes those regulations are in place but they're not independent of what else you just described. Because they were the result of the government having a view that it should be maintaining a national reputation in the field and responding to fly by night operations, which is the response in many countries. That's true.</p> <p><u>That's always seemed to me to have been a key parameter in what was driving our international strategy. So essentially we get funded - we get a lump of funding associated with students and out of that we have to do everything. So it's always been a cross subsidy sort of business model. Then international students gave us the opportunity to get more resources to do new things. But we still don't get - apparently we still don't get sufficient funding for research.</u></p> <p>So the other way of doing it would be - and this would be a major change - would be to split the funding of teaching and research. Which is more like the US model as I understand it. So if you get a research grant it comes with a big lump of infrastructure funding.</p>
--	---	--	---

	(particular to the current extent, which is significant?)	
Foundations: [AND RESPONSE] - basic research and applied – cross-subsidy	Cross-subsidy between basic and applied research. Applied research subsidising basic research. Can be difficult to compete with universities that have little or no commitment to basic research. [Or, is this another form of 'tension'? – foundational-functional?]	Essentially what we do is earn income on the things that people are already immediately willing to pay for and <u>we use the income we earn to invest in more fundamental activities. So essentially we fund the - we get money for applications and we use the income from that to fund the basic research.</u> So it's always - despite my concerns about it, it's always going to be a cross subsidy environment. The problem for us is that we get picked off there. So as the international market becomes more global, <u>service providers who don't have that same commitment to doing the same extent of research, they'll usually say they've got a commitment to research.</u> I mean Torrens for example apparently says that. But if it's more of a specialist teaching provider than we are, then it's going to be hard for us to compete in that environment. So the way we've responded is to try and ramp up the understanding about what value we add.
Difference or driver? -stakeholders – value - engagement	[Drivers: stakeholders?] There are many dimensions to the matter of stakeholders and engagement with them – how a stakeholder might assess the value of the university, how the relationship changes over time (starting with being a student).	Tremendous loyalty, regard, appreciation for the university. Something that I don't think any other - I'd be surprised if other organisations had the same degree of intensity. ... But also it's - I took it as a very positive signal about the value of the university and an opportunity to make a contribution to it again. if we were another organisation, BHP or the post office, would someone who was previously associated with us come back with that same sense of connection, linkage, loyalty, willingness to contribute? I don't think so. ... I guess another angle on that is how your relationship with the university continues but changes. So you're a prospective student

		and you're talking to your folks about will I go to university or will I not? They're more likely to say what? Yes you will. They may not but - and then you're a student and then you're in an alumni. Then you're an employer of graduates so it just never goes away.
SA:	[Being in South Australia:]	I don't think it matters too much. There are some funny places in the US which support terrific universities but it depends on your ability to get that mass together, to be able to attract visitors and interact with the rest of the world. ... No, you've just got to - it's not necessarily a plus or minus but you've got to adapt to - you have to think about how that influences your strategy and what your options are.
Profile:	An economics point of view. For example: [Compare this with, humanist and, political scientist, social scientist., researcher.]	I always <u>look at things from a sort of economics point of view</u> - usually. Probably my colleagues in economics would say not enough or you've forgotten things or that's just rubbish. ... <u>Ways of organising things, allocation of responsibilities, use of incentives, strategies on pricing, differentiating products or services, those sorts of things. Contracting out, managing partnerships, designing those things. Evaluation of performance - financial performance in particular, what - thinking about how the university budget works.</u> What incentives it creates, how it might be redesigned to do things in a different way. Asking questions like why are we financing long lived built assets out of current operations rather than debt? So, yeah, all sorts of things I think.
Response: - [more] entrepreneurial	[Entrepreneurial?:] - approach to new programs, managing change, research areas, etc.	If I look across the current mob of deans, they're very - I'd say they're generally very entrepreneurial ... inherently. ... Trying to figure out what sensible new programs there are to offer. If you look at a program and its enrolments are declining, how are we going to respond to that? I'd call that an entrepreneurial approach to things. Like I said earlier, defining areas of research in

			<p>which we might concentrate. So managing change basically - willingness to manage change.</p>
	<p>Foundations [and entrepreneurial]:</p> <p>- is there a tension or conflict [issue raised by interviewee]</p>	<p>Yes, can operate entrepreneurially in a way that still reflects the fundamental proposition, nature of a university.</p> <p>[So, can we say that being entrepreneurial or acting so, is functional, rather than foundational? Yes, in the manner asserted here.]</p> <p>Risk and entrepreneurship:</p> <p>-poor at risk taking</p> <p>- less entrepreneurial at higher levels of the university organisation.</p> <p>[An example of operating</p>	<p>You could probably take your question about entrepreneurial behaviour back to your original point as well. So <u>is that consistent with or contradictory to the fundamental - can a successful university be managed by entrepreneurs?</u></p> <p>... [Yes.] But what I'd be expecting them to do is <u>to operate in a way which reflects the - again the fundamental proposition was that those two things that distinguish a university and the way that the organisation is created to sustain them are really valuable</u>. So what the entrepreneurs are doing is essentially capturing the value of that that structure offers. As circumstances change they have to do that in different ways but it's not changing the fundamental nature of the business. So that would be a terrific lever of an institution who understood the fundamental values but was able to continue to redirect it or reposition it or reorganise it. In a way that succeeded in the environment, which has to keep changing because of all sorts of...</p> <p>... <u>we're not very good at taking risk or making</u> - generally we're not very good. So there might be individuals who are entrepreneurial but as a group we're probably - where the group as a whole is involved we're probably less entrepreneurial than...</p> <p>... As you get to <u>higher levels of aggregation I reckon that drops off</u>. So if you had an entrepreneurial indicator it would be less higher up. Because there's more people involved in the decision making and some of them are distant from the business itself. Yet their responsibilities are regulation or finance or something like that. So they don't want to have - they'll act as a break on the individual - entrepreneurship at the individual level.</p> <p>... if I can <u>quarantine an activity</u> to be totally within the faculty I can</p>

	<p>entrepreneurially at different levels:] quarantine activity levels:</p> <p>FUTURE RESEARCH: - 'dampeners' for entrepreneurial activity in universities.</p> <p>[...whether it's size or some other measure, particularly size, if you want to do something entrepreneurial there are dampening processes.]</p>	<p>run with it. So we can, for example, we've got this institute called international trade, basically I'm responsible for it. It sits within the faculty, I can push really hard there. I can invest in it, I can put more positions into it, I can agree with the director that we're going to reorganise all the staff in it. We're going to have new areas of activity. I don't have to go check with anyone else. But if I want to run a new program I've got to go...</p> <p>Yeah I think they're dampening. So if you can put some time into thinking about what those dampeners are, that would be a really interesting thing to do. Then how you resolve them.</p>
<p>??</p> <p>Response or driver: - accreditation [quality, exclusiveness: 'club', value, benchmark</p>	<p>[Compliance and accreditation:]</p> <p>[We talked about compliance and that sort of stuff and regulation. What about things like - is it AACSB accreditation or whether it's EQUIS at [.....], what's the driver for those sorts of things? Because it's not quite like you know if you're in engineering being accredited with Engineers Australia, because that's sort of the de facto standard to be employed. How does business school accreditations of that sort - you know those business school</p>	<p>Well again it's supposed to an evidence of quality. So it's trying to pick up things that maybe the university systems don't do. Or it's to <u>benchmark you against these global peers</u> so that you are - it gives people a signal of your respect. ...</p> <p>... probably the AACSB as being more relevant to students. I mean I noticed some people who are members of AACSB saying now they'll <u>only have partnerships with other members of AACSB</u>.</p> <p>... However there is another explanation. The economic explanation is that it basically creates this - you try and set up a club with restricted membership. It really does have some value but the value is collected by the people who are managing the club.</p>

	<p>Foundations:</p> <ul style="list-style-type: none"> - knowledge: producing (context of society) - society - developing people capability with respect to knowledge - social contract (but not exclusive to universities) - stakeholders, society – impact - knowledge: creation & dissemination - innovation <p>Change:</p> <ul style="list-style-type: none"> - now can co-produce - collaborate – problems in society - volume and rate of knowledge acquisition and transfer <p>Driver & response:</p> <ul style="list-style-type: none"> - economic benefit – invest in education and skill development - respond through creativity and innovation (and able integrate infrastructure with this, by 	<p>accreditations, ...]</p> <p>The universities that cannot be sustained are the ones that solely focus on intensive education and teaching, with no innovation or knowledge creation.</p> <p>[There are a number of elements here that are consistent with other interviewees.</p> <p>Social contract and social responsibility but this is asserted to not be exclusive to universities. However 'knowledge' is with respect to society. So, in addition to knowledge and difference aspects of it, does this equate to 'public' good/benefit (which is discussed by other interviewees and Collini)?</p>	<p>... the business of university is <u>producing knowledge and producing people who can use that knowledge in society</u>. I think that is the unique contribution that I would see universities as having. The interesting connection between business and universities is the fact that now knowledge is seen as a commodity and a product, and there have been significant sort of academics who have written about this ...</p> <p>... I think that within that social change there's also the notion that traditionally universities were able to <u>generate knowledge</u> by being separate from or isolated from the mainstream of activity. But now I think again both implicitly and explicitly there's a notion that this notion of <u>coproduction or action research</u> or being able to sort of work collaboratively with how you could improve things, and I just think the nature of our <u>problems in society</u> are such that you have to have a lot more people actively involved in problem solving.</p> <p>[Foundation and change; driver:] I think the other thing that's hit universities is the <u>volume and spate of knowledge acquisition and transfer</u> that's <u>speeded up</u>, and also the notion that <u>economies are more successful the more they invest in education and skill development</u>. So I think all of those major drivers have impacted on our traditional concept or construct of what a university is.</p> <p>I think the university sector has not been as quick or some have been very quick to respond, and they're the ones that are in the top 20 of the world. They have been able, in my view, to sort of <u>harness creativity and innovation, and the best of blue sky research and thinking and development with an infrastructure that enables them to develop</u>, and also possibly a sort of a <u>management style and vision of impact that sort of pulls all those things together</u>.</p> <p>I think the more <u>struggling universities</u> are those that don't</p>
--	---	---	--

	<p>management and vision)</p>	<p>Interviewee: all businesses have some form of social responsibility.</p> <p>This integrates a number of key foundational concepts, elements, but also brings in stakeholders, society.</p>	<p><u>articulate their primary goal as anything to do with innovation or co-creation of knowledge, but see themselves as sort of intensive educational establishments that are basically teaching people</u>, and to me that is the problem, that in order to get the biggest impact, you have to keep research and high quality learning and teaching connected.</p> <p>... I think I would argue that all successful businesses have a <u>connection with society and have a social responsibility</u>. I think it is a myth that any institution is independent of society. I think it has to have a <u>social contract</u>. A university is a public body. It is accountable to the community, and I think that's sometimes something we forget. So it is absolutely paramount that universities have that clarity of their social and moral responsibility.</p> <p>... So personally, for me, it is that commitment to innovation and excellence in both knowledge creation and knowledge dissemination, and being able to articulate what the added value of that activity is to key stakeholders. I think that that's again pretty consistent with what I see as successful universities, or universities that are trying to keep their position or move further in impacting on society.</p>
	<p>Differences (organisations) and foundations [?]:</p> <ul style="list-style-type: none"> - ethics - ethical use of resources - contribution to community (“giving back to”) = ‘social entrepreneurship’ - independence - linked to ‘integrity of 	<p>Usually features of universities. These are differences from other organisations usually, and perhaps, also, foundational to universities. This is consistent with a number of other interviewees.</p> <p>‘Integrity around knowledge generation’ is the core driving tenet of a good university, it is suggested. [Tenet is a good</p>	<p>I have to say that I was really impressed with the quality and calibre of these chief execs, because up until that time, most of my experience was within healthcare and the National Health Service leaders, and so that sort of made me think that things like organisational leadership, the <u>ethics around business</u>, the ability to lead teams to be sort of <u>ethically responsible for the use of resources and to give back into communities</u> that whole social entrepreneurship, that was stuff that I just thought, yes, it would be good if we had more <u>business principles sort of permeating through a lot of the other disciplines that are traditionally embedded in universities</u>.</p>

<p>knowledge'</p>	<p>term.] Interviewee also links to the notion of 'independence'.</p> <p>E.g. as applied to companies:</p>	<p>... Again it depends how you define <u>independence</u>. If <u>independence is linked to the ability to sort of have integrity around the knowledge that's produced</u>, rather than having it comprised by business principles, then yes, that integrity around knowledge generation is one of the core driving tenets of what a good university would be like.</p> <p>... So I think again, for university, you have to be able to demonstrate the <u>integrity of the knowledge you create</u>.</p> <p>So if you've got researchers and drug companies working together, and we're saying the researchers should have the integrity of being able to truthfully describe what's happening, equally you should be expecting the drug companies to have the integrity that they want for the motivation of profit alter the results. That is, to me, as important a notion of independence or integrity as the university one.</p>
<p>? 'tension':</p> <ul style="list-style-type: none"> - entrepreneurship, innovation - AND values, philosophies 	<p>Innovation and being entrepreneurial whilst being true to values and philosophies.</p> <p>[Other interviewees have commented similarly – the implication is that perhaps being entrepreneurial is what we might call a 'functional' dimension, while being true to the mission or values of the university, is what we would regard as 'foundational'.]</p>	<p>It's like most points of creativity; that's the point of tension. So I would say that if you're not going into those areas of tension and conflict, then you're probably not moving anything forward. So again, part of entrepreneurship or innovation is being able to hold true to the values and the philosophies, but also know how to move through the tricky, difficult stuff, and know how to do that with integrity.</p>
<p>Drivers (for change):</p>	<p>Environment? Drivers?</p>	<p>... it's just general societal development, <u>greater technology around communication, increasing investment in university sector and the</u></p>

		<p>SA over resourced for universities:</p> <p>SA founded on principles of liberalism and humanitarianism</p> <p>SA goals – research:</p> <ul style="list-style-type: none"> - international renown - adequate investment - competition - lack of scale - challenge: identifying gaps, entrepreneurial 	<p>Australia ever let it get to that level?</p> <p>You don't want universities to sort of separate out that you've only got two or three that are getting all the research money, for example, and you don't have that diversity. But with the population of only 22 million, Australia is relatively small in terms of world stage. When you've got 22 million people who live around Beijing. Those again are the metrics that we're having to pick through.</p> <p>...</p> <p>Yes, that's right. Again, <u>South Australia is probably over resourced in terms of its universities</u>. It's got three competing in a population of 1.5million. Now, I come from Northern Ireland, and we have a population of 1.5 million, and there are two universities there. So the third one would have been a bit of a third child syndrome.</p> <p>...</p> <p>I think what's also nice is to appeal to the <u>South Australian spirit of the pioneers and the people who founded the state in terms of their principles of liberalism and humanitarianism</u>, et cetera, et cetera. I think that is also important in terms of the whole ethos and why people would want to bother doing things.</p> <p>...</p> <p>... to become <u>internationally renowned</u>, it takes at least 20 years of a huge tail of investments and the right groups and teams together. I think the challenges for Adelaide would be having the <u>capital to invest in research and not to lose out on the competitors in the eastern seaboard</u>, and again because of the small size of the state, how do you get economy of scale. I think in health, as you would know, we're in a major transition period with [SAHMRI] and all of that, and the most recent NHMRC outcome results didn't really auger very well in terms of what we're doing and what we're good</p>
--	--	---	--

		<p>at.</p> <p>So again, that does require thinking in terms of our strategic positioning and how we continue the pipeline. I think that the research space is going to get more competitive, and again, being the entrepreneur, I would be sort of saying, okay, <u>let's move into spaces that nobody else is interested in</u> at the minute and start to maintain our alliances.</p>
<p>Drivers: ?</p> <p>- research grant process - resources</p>	<p>In research (competitive grants) success locks in success. Resourcing is a significant issue – teams already dedicated to supporting grants.</p>	<p>... basically they have the monopoly. ... <u>most of the panels have predominately either people who are successful in successful universities, so they've squeezed out all the outliers, and even if there are outliers or smaller representation, their voice is not going to be listened to.</u> Having served on one of the panels a couple of times, I suppose my judgment is that fairness does prevail, but equally you actually see how much work has to go into a grant that is going to be supported, and you have teams fully dedicated to doing that. So that is a resource issue as well.</p>
<p>Responses [?] (barriers to entrepreneurship):</p> <p>-investment</p> <p>- culture (not supportive)</p> <p>- lack of understanding</p> <p>- selection of staff</p>		<p>I think it would be the same things that dampen it anywhere else - <u>(a) not knowing what it is; (b) not having the right investment around it; (c) having a culture that doesn't support it; (d) not selecting out people who can do it and will thrive in it; and (e), when you've got it and not acting on it.</u> So those would be the things that would come immediately to my mind.</p>
<p>Profile:</p>	<p>Academic and leadership roles. Innovator. Seek practical improvement</p>	<p>Well, it's totally informed it, because background always informs every way that you answer questions. But I suppose the caveat is that in every job that I've had I have been setting up something new, so by <u>nature I am an innovator, not trained formally, but by trial and error.</u> So I sort of usually go into places that are in need of a bit of energy, and sort of get to work. ...</p>

			<p>Yes, that's exactly it. I think it's because I've got very high level analytical skills; I can see patterns and analyse problems quickly. Because I like action, I like <u>practical improvement</u>, so as a nurse, the reason I got into innovation was I walked into a system that I thought was so stuck and so uninspiring in terms of its passion, innovation and creativity change, and all I saw was people needing some sort of creativity and different ways of doing stuff.</p> <p>I'm not, I wasn't, but I wouldn't say that I'm a typical academic. I'm more of <u>someone who wants to see results, and I think sometimes academics and researchers are happy not to take responsibility for change</u>. So my history has been <u>moving between academic roles and senior strategic leadership roles</u>, and I continue to do that. Again I think that more of that is required to make the universities relevant to the new challenges.</p>
	<p>Foundations:</p> <ul style="list-style-type: none"> - collective – of sole traders - traders with own: courses, students, research – reputation, field or discipline - university = structure of traders - core is teaching and 'research engagement' 	<p>This comes together and equates to an 'enterprise'.</p> <p>Note, most people work in, rather than for a university – academics.</p> <p>Core activity is teaching and research and engagement, with each interpreting the mission of the university.</p>	<p>A university is a collective of sole traders, in my view, because each of the individuals has their own currency and the currency is typically <u>their students or their courses or their research, their reputation and their standing in the field</u> that they have chosen to go into themselves. <u>The university affords an opportunity to collect sole traders and put them into loose columns with a layer of structure around them</u>, which is then actively subverted by committee structures. It's - I suppose it's - as an enterprise, there are - a lot of people work in a university. <u>Not many people work for a university</u>. Overtly - that's now me taking an overtly biased view of the academic cohort. Lots of professional staff work for the university....</p> <p>... so if the <u>core business of an institution has to be teaching and researching engagement, you've got a lot of people who do what they interpret to be that mission from their own perspective</u> - a holistic institutional perspective.</p>

<p>Drivers? :</p> <ul style="list-style-type: none"> - competition (at individual academic-level) 	<p>Academic competition – driver for individuals.</p>	<p>I think <u>competition spurs on academics, so being - having a competitive edge, which is access to resources or access to peers who leverage other resources will be one way</u>. Then the attraction of standing - to be able to use the position of the institution to further your career if you're on a career trajectory. I think academia is a very selfish pursuit.</p>
<p>Foundations & differences (other organisations):</p> <ul style="list-style-type: none"> - disciplines 		<p>... I think - my experience of it is it holds true. I think people are - if you ask somebody what they do as an academic, they don't say, I'm an academic. They say, I'm a chemist, or, I'm an economist, or - there is an <u>immediate discipline identity</u>, which is why whenever we try and push interdisciplinary or multidisciplinary, it becomes such a big issue. It's also the - again, <u>that's a differentiator of universities to other sectors</u>. Other sectors are typically multidisciplinary in structure, whereas universities preserve disciplinary separation in practice.</p>
<p>Drivers/responses:</p> <ul style="list-style-type: none"> - structure – hierarchy - committees 	<p>Committees equate to lack of responsibility and lack of real change.</p>	<p><u>Universities traditionally are very hierarchical</u>. They love structure. Universities do love structure around - and if you think - if the discipline is the end game, or if the individual is the end game, you've got the discipline, you've got the school, you've got the faculty. You've got potentially a college. You've got that <u>hierarchy of structure with layers of where decision-making sits, core structures and committees</u>. I find the universities default organisational structure is the committee, which wouldn't normally be the way - there's less of an executive function.</p> <p>... I'm speaking in general, right. There's a tendency - so my perspective is I think there's a tendency to form committees <u>because committees means that nobody is actually individually responsible for anything</u>, which is - it is. It's a collective abdication of responsibility. A committee - the committee has decided, it was resolved by the committee. You probably find that in no instance in</p>

<p>→ Differences (from other organisations):</p> <ul style="list-style-type: none"> - 'professional' <p>- culture and structure – relative sameness</p>	<p>'professional' staff, structures endure in a university. Academics more transient.</p> <p>Can be sameness of structure and even culture, in some cases. Much depends on the culture, including the ability to change, such as changing committees.</p>	<p>the vast majority of institutions do committees vote on anything, so it is by consensus and consensus is typically compromised, which means that we don't actually affect much change.</p> <p>... Then you have the - on the professional side, <u>the professional side serves to service the institution</u>. Depending on the nature of the institution, if you take older, Go8 or Trinity colleges of the world, the professional side is the civil service, which will endure - will continue to do what it does because that's what it has done for millennia, and <u>runs the machine</u> while the academics are the more transient component to the operation. People come in, they leave. My chancellors come and leave and my PVCs, DVCs come and go.</p> <p>... because <u>institutions emulate other institutions structurally</u>. It's - if you look at <u>university webpages</u>, there'll all very much the same. They structure it the same way. If you look at institutional structures, everybody says, we have to have an X and a Y and a Z in terms of the managerial structure. So we do tend to do what's already there, which is why some of what I've been doing has been trying to change what's already here and get rid of half of the committees that we have.</p> <p>But it depends on - I suppose it's a cultural beast. <u>It depends on what the culture of the institution is. Is it to be a university or is it to be a university which is different to other universities? There are - the vast majority are at universities which are like other universities.</u></p>
<p>Foundation, mission:</p> <ul style="list-style-type: none"> - academics, culture 	<p>People and institution alignment: culture, mission – research intensive, knowledge- based, etc.</p>	<p>... that goes back to one of your earlier questions, that why do people join the institution? Some <u>people identify very strongly with the culture</u>. I think if you were to survey the entire population here,</p>

	<p>People = attributes + culture \leftrightarrow cultural identity (organisation)</p>	<p>you'd find more people who believe in what does than who have just come to because it's a university. In terms of the way that we've run the organisation, we tend to try and identify people who are more like-minded than not. Then you get into the universities trying to be like other universities dilemma, where you sit down and say, well let's try and be a <u>research-intensive university, or, let's try and be a knowledge-based institution.</u></p> <p>... You start to hire people that have those <u>attributes and try and square that off with your cultural components.</u> You lose some of your cultural identity, I think.</p>
<p>Differences (universities): - 'normalise' for age</p>	<p>If normalise universities for age, then can represent them as different points on a curve. [Does this suggest that universities can be represented as being on a continuum by say, age and other features such as revenue, resources, research-intensiveness for example? – bearing also in mind that’s predecessor organisation was over 100 years old. Is really only to be regarded as 40+ years old?]</p>	<p>... I think if you <u>normalise them for age, very little.</u> I think ones who have been around longer have embedded slightly different cultures to ones who are newer. The ones who have come out of the Bradley reforms and the ones who have come out of the actual - the amalgamation of the technical colleges have got a slightly different flavour or focus. But if you took the age - if you run them out <u>as being enterprises that can endure for hundreds of years, they're just different points of the curve.</u> ... I view this place [.....] as a start-up university. That means that over time, it'll become a middle aged institution and then over time it'll become an established institution.</p>
<p>Drivers (and forces): - funding, policy</p> <p>Responses: - inputs, grow students - no longer not-for-profit</p>	<p>[What do you see as being the forces and influences?]</p> <p>[See the inter-dependencies here between drivers of funding and policy, and the response which is an input model of growing student numbers – this is a very</p>	<p>Primarily funding. Money makes the world go round. That means that the national policy, as it currently stands around <u>participation drives behaviour in a certain way.</u> I think that a <u>participation model is the wrong kind of model.</u> You should be focused on <u>outcomes rather than the inputs.</u> But if the <u>inputs provide the funding,</u> then people are going to drive participation in a certain way <u>to have lots of inputs.</u> So it does become an interesting dilemma. If you want to achieve ambitions and be like all the other institutions</p>

<p>- revenue is a priority</p>	<p>direct dependency. If we connect this to the next interviewee proposition: very little domestic student mobility across states, then than connect with the international student driver for growth.]</p> <p>Small domestic student market:</p> <p>Rather than input model (student numbers growth), preferable to have outputs such as successful student learners.</p> <p>Money over education.</p> <p>Once not-for-profit, not typically the case new – publicly funded so must respond to policy.</p>	<p>and have access to revenue, you will bring in lots of students.</p> <p>... In a <u>market where - what surprises me in the Australian market is how few interstate students there are, that they tend to come from the states that they're in.</u> They don't travel that much, university students. So you're a fish in the pond of a certain size in a given state. Then as you take in your intakes, you have to drive your revenue. If revenue becomes the only decent - institutions embrace the notion of increased dividend or margin on an annual basis, then your behaviour's going to take in a certain way, which will bring in the students that may not be successful learners. That's driven by policy, just to ensure that people participate.</p> <p>... <u>Driven by skills demands,</u> which is - I think it's <u>money first and foremost.</u> It's rather than principle, rather than anything else, rather than even education.</p> <p>... I'd say there <u>are very few institutions having not for profit view of the world. Yet institutions typically would have had that once upon a time.</u> But it's - if you're a <u>publicly funded institution,</u> you have to respond to how the public wants to fund you. That's determined by policy.</p>
<p>Driver: = government – extent of influence?</p>	<p>Government influence:</p> <ul style="list-style-type: none"> - strong - majority funder - diversify revenue: international students/market – no influence over <u>international market</u> - → driven by cost not quality 	<p>... <u>it's pretty strong.</u> Yes, the short answer is yes. The longer answer is that I would think there are - I don't know the stats, to tell you the truth, but I know looking locally, the <u>Commonwealth is the majority funder for the three institutions here.</u> Can we move to <u>international students who bring in fees,</u> and that's fine. That's a way for us to generate our own revenue, but we're <u>absolutely exposed to the standing of the nation, I suppose, in terms of international markets ...,</u> which again is something that the institutions can't influence at all.</p> <p>So it's not the quality of the education, but the cost of the education that draws the students, which means that when those pieces cycle</p>

			<p>- and they do cycle - the Commonwealth piece becomes more important again.</p>
	<p>Drivers: - quality? – response/effect: homogeneity in HE sector - policy Differences (universities): - ? quality</p> <p>Drivers: - business engagement - economic imperative - government expectation (national policy) – return on investment (ROI) from universities - ROI outputs</p>	<p>Government quality framework imposes homogeneity on the HE sector.</p> <p>[Does the quality framework dampen the extent of possible differences between universities in Australia?]</p> <p>An emerging driver: business engagement by universities as an output connecting with the economic imperative – this is delivering a benefit to the taxpayer in return for the investment in universities.</p> <p>ROI outputs: graduates, research, knowledge.</p>	<p><u>There's a quality framework which imposes a structure of homogeneity into the sector because we all have to aspire to having a certain quality framework, which in some ways takes the edges off the institutions. So you get more normalisation.</u></p> <p>... interesting that AQF and TEQSA have such an influence on the institution nationally, ... But non-compliant coursework being identified by an external body and then the institutions told, you cannot award in these areas, I find interesting. It certainly <u>politicises quality control</u>.</p> <p>...</p> <p>... one of the most important emerges now is going to be business and how universities are to <u>engage with business - the economic imperative</u> which is slightly different to the former imperative because of the output piece and the relevance of what institutions do. That goes back to a <u>political policy piece about if there's taxpayers' investment going into an institution, what the benefit on the far side?</u></p> <p>... the expenditure of government and the <u>return on the investment becomes the focus</u>. When you swing around to a return on investment lens to look at universities, you start to ask questions about what you get from research and what do you get in terms of <u>graduates</u>. So then you <u>tweak the levers about the graduates, and that goes back to the funding piece</u>. But if you <u>tweak the levers on research, you get into a very interesting situation where government is no longer funding what universities are supposed to do, which is generation of knowledge</u>.</p>

<p>Drivers:</p> <ul style="list-style-type: none"> - industry via government – research outputs <p>Foundations:</p> <ul style="list-style-type: none"> - basic research through to applied research (market relevant) – a ‘spectrum’ → <p>Foundation and driver – blurring:</p> <ul style="list-style-type: none"> - ROI implies private sector researcher organisation 	<p>Industry-university research ‘coupling’. Queries whether government is funding research that industry should be funding for itself.</p> <p>Blurring of foundational and functional when ROI is introduced to universities.</p> <p>(continued) Contract Research Organisations: differentiated from universities.</p>	<p>...</p> <p>Governments are actually funding active surrogacy for what industry should be investing in themselves. Oftentimes it's the lobby of an <u>industry who want to see closer coupling between university research and industry outputs</u>, which drives research in a way that dries up the pipeline, even with everything in your market and you don't have anything come through. So I believe that research should be a spectrum of - all the way through from conceptual, just knowledge for knowledge's sake, through to absolute application which is very near market, but parts would belong in different sectors.</p> <p>Where you get - when a return on investment piece comes into the university regulation component, you blur the role of the institution and you actually try and bring it over closer to being more like a private sector research provider.</p> <p>... when a return on investment piece comes into the university regulation component, you blur the role of the institution and you actually try and bring it over closer to being more like a private sector research provider.</p> <p>... If you want a <u>contract research organisation</u>, create a contract research organisation. If you want a university, accept the fact that the people who work in the universities work in universities because they're the individual researchers that we talked about earlier on and they don't work in CROs. ... <u>Better to have the institutions go back to points differentiation</u> to decide what kind of staff they're going to employ to fit into these components.</p>
<p>Responses (funding policy e.g.):</p> <ul style="list-style-type: none"> - diversification of income – industry partnerships 	<p>Diversification of income through the path of industry partnerships.</p>	<p>It takes a brave enough institution to say no to some things, particularly when policies are structured around participation and winning ARC grants or winning linkage grants or winning the way in which the national policy piece is set up. That's where the</p>

		<p><u>diversification of your income stream</u> comes in, so you can determine what you're going to do yourself. So the other piece is actually to identify who in <u>industry is not shouting loudest about having a partnership and work with them</u>, people who actually appreciate the different components of the ecosystem and where they fit into it.</p>
<p>Response, differences (..... e.g.):</p> <ul style="list-style-type: none"> - cultural identity = staff qualities - university of enterprise = nimble, business-like, engaging - entrepreneurial (in line with mission) 	<p>University of <u>enterprise</u> comprising clear cultural identity (through alignment of staff qualities) organisation nimble, business-like – reduce hierarchy.</p> <p>[Is this different from any other university set of strategies, or other organisations? Perhaps a university bringing together these elements against a university mission is a point of difference.]</p>	<p>... make sure that we're very clear as to what it is we do as an institution. So there's the cultural identity of Uni SA is one of the pieces that I want to work through quite clearly. We've make quite - we've established that the intention that we want to be a university of enterprise. That means different things to different people. For me, it's an institution that is nimble and responsive and comes up with products which people actually want, and stops doing things that people don't want, and takes a more business-like approach to its offering, but also is easy to do business with.</p> <p>That's a key piece for me. I think that's where one of the gaps is between sectors. It's a sectoral engagement piece. But working through culture takes time and that's why it's part of a five year action, to make sure that we can define the qualities of staff that we want, who are identified with the values of the institution. Entrepreneurial, but also aware of participation and pathways and the mission of, as you said, what makes Uni SA Uni SA. So hiring in staff on that basis, planning in when we're looking at replacements and retirements. About one in eight of my staff will retire over the next five years, just through attrition.</p> <p>So as we replace that cohort of staff, making sure we hire staff in who match to the objectives of the institution. Doing that piece - and actually the one piece I personally believe in is I will try <u>and take down some of the artificial constructs of the hierarchy</u> of the institution. ... trying to empower individuals to understand where their activities can add value to the overall strategy of the institution</p>

		and giving the means to make those decisions.
Responses and change (..... e.g.)	Engagement with industry. International networks – students.	<p>... as I said, what can universities do for Australia? Making sure we <u>engage with our industry partners</u>, of which we have a lot, and asking the questions in terms of how is the relationship from their perspective, not what can we take from the relationship from our perspective, and figuring out where there are opportunities to work together. That's a key piece. It's about conversation.</p> <p>Internationally the - there are a few pieces in terms <u>of international networks from an alignment perspective</u>, which we'd be keen to do, and also to push our students out, whether it's through the New Colombo Plan or more likely through just partnerships with institutions. I think perspective is important in an institution. People need to get out and see how all the places work.</p>
Change & 'barriers' ?:	<p>Systems and process: - improvement, make enabling</p> <p>Industry engagement: - marketing, narrative - analytics, performance</p>	<p>... as an academic manager, right - and you take the corner of management piece - I think I need to make it easy for our good people to be successful. So there's a process based by the institutions, they've got barriers to success. A lot of the internal systems review is to make sure that we are better enable to do better.</p> <p>...</p> <p>... In terms of engagement with industry, ... The migration we have is going to be towards themes and marketing the institution as opposed to marketing individuals. ... But it's about having a good story to tell. I also think that the information that you have on how good you are is really important as well, which means you need to have good <u>analytics on performance</u>.</p> <p>... You can get <u>analytics on performance on academics exceptionally easily</u>. <u>Getting analytics on performance on the professional staff is</u></p>

		of the ways we want to go better.
Responses (UniSA): - governance - thematic approaches - research - matrix structures	Chief Academic Officer?	<p>It would be in support of any research piece. We think - we're moving to themes, okay? As <u>we move to themes, then the individual centres or the individual individuals, or even the institutes, become in some way subordinate to themes.</u> As we make the 100 new professor investments, we're going to invest them against the themes. They'll have a home base. They'll have a school that they identify with and ultimately that still has a disciplinary bias or slant.</p> <p>... I saw one really good example of it. It was in Aalto in Finland. They took three universities, put them all together, probably - it would have been 2000 or something - it was quite new. But they did it - defined the matrix very well. Finance all worked for finance. They'll take - if you're the pro-vice chancellor, you can ask finance anything you want, but you can't change their work plan because they work for finance. That we have - I think the right type of matrix that people who don't know - do they work for the institution or do they work for the division or do they work for the school?</p>
Profile:	First in family to university. Industry internship – research- industry role.	The fact that I'm here is because I went to an institution which was very like this in Ireland, from another graduate perspective. I was the first in the family to go to university. I was pretty - I would say fairly ignorant to the pathways that I could have picked. I've certainly - whatever the SASS equivalent in Ireland is called Leaving Cert. I was clever enough to have been able to do anything I wanted. What I wanted to do was I wanted to be a scientist. After that, I was

			<p>agnostic as where I wanted to study science.</p> <p>I remember my parents - my father said to me, put down Trinity College, it's a very good university. My mother said, no, you'd have to get the bus if you went to Trinity. Put down DCU, you can come home for your lunch. That was the decision. The decision was made on that basis. It became - and that pathway certainly influenced - when I was in DCU, I was probably there about six months when I realised I was in the wrong course, so flexibility in curriculum became an important thing to me. But what was really important for me there was we did - every student had an internship with an industry partner. The first million dollar deal I did as a VP for research was with the company I interned with as an undergraduate.</p>
	<p>Foundations:</p> <ul style="list-style-type: none"> - tend to be not-for-profit - includes basic research, knowledge – repository of knowledge - educational focus, builds capacity 	<p>Paradigm shift arises from basic research, “knowledge for knowledge sake”. Coupled with applied research <u>enables knowledge to transform</u>.</p>	<p>Probably a couple of things. The first thing that springs to <u>mind is not for-profit</u>. I mean there are other not-for-profit organisations but then universities tend to allow - or at least in the past used to allow <u>research for research sake rather than necessarily it having an application</u>. That's wound up in the not-for-profit type thing because there's no need to necessarily capitalise on that research. It's just knowledge for knowledge sake - in the past, I don't think it's the same now.</p> <p>The other thing would be the <u>educational focus</u>. Yes, schools are similar of course but the focus is on <u>trying to build capacity</u> and keep things alive that would otherwise die. I think some knowledge or expertise that could die is kept alive.</p> <p>... universities have to balance that against - knowledge for knowledge sake against being a viable organisation as well. I think those are the two things.</p> <p>... I think it's <u>knowledge for knowledge sake</u> and I think that's been a <u>core - it's like a repository of knowledge</u>. ...</p>

	<p>Does this equate to 'translation'? [See]</p>	<p>That's how I think of it. It's like where you go when you - some things - because some things you don't know are going to be a problem until - or an issue or a thing until circumstances or knowledge evolves to a certain point. Then they say oh this is really important. But if you didn't have that <u>repository of knowledge</u> there then it would get missed. Things wouldn't - you wouldn't progress that's it.</p> <p>... <u>Those paradigm shifts that's where it comes from is knowledge for knowledge sake</u>. You don't often get a whole paradigm shift when you're doing applied research, I mean speaking as an applied researcher. I mean I have a great fondness for applied research and sometimes I think the navel-gazing can get a bit too extreme. ...</p> <p>However, it does enable knowledge to transform.</p>
<p>Differences (universities):</p> <ul style="list-style-type: none"> - research - quality - higher benchmarks - outputs (expectations) 	<p>Quality as indicated by research, higher entry rates, higher entry scores.</p> <p>Expectations, outputs, perhaps as measured relative to benchmarks.</p> <p>Private universities – so for-profit?</p>	<p>There's some <u>quality</u> - there are so many there is the Go8 who are meant to be more interested in the <u>research side of things, higher entry rates, or entry scores</u> are needed to get into their courses, I think, it's not my area. But they set a higher benchmark I think in terms of their students and their expectations for outputs. There are other universities that are trying to build that culture.</p> <p>...</p> <p>The Executive Dean at the Australian Catholic University and they're just trying to build that culture now and in an allied health sector. Then there are private universities as well but they are - like Bond University but I think there's a conflict there. Because if they're a private university then they're expecting to have some profit I would have thought.</p>
<p>Foundations [?] & differences:</p>	<p>Profit, surplus? – for-profit,</p>	<p>Well with not-for-profit you should be burying it back into the</p>

<p>- for-profit, not-for-profit</p>	<p>private universities, expectation of dividend to 'shareholders'.</p>	<p>business well as such. It should - any surplus should go back to improve the quality of what the university is providing or to support the university to some extent. <u>Whereas for profit there are shareholders or the people that own the university expecting some dividend from it.</u></p>
<p>Drivers: - 'free' education? – transformation of society - → student demographic shift</p>	<p>[Fee] Free university 'transformed society'</p>	<p>... I don't know whether it transformed the university but it certainly <u>transformed society</u> when we had free university education for a while. The government supported places to universities and that had a huge impact. I went through up until my masters; I had free university education ...</p> <p>... It meant I went to uni because if I had not had that there would have been no way I would have been able to afford it. I think a lot of - I think <u>there was a demographic shift</u> when that occurred. I mean there were prior to that you could get to university with scholarships but those were people that knew about the scholarships.</p> <p>... So I think that's okay but I think it did really open up universities at that time. There were less - they are less elitist than they used to be and whether that's gone through the culture of the university or not, I think so.</p>
<p>Drivers: - financial – sustainability – financial pressure →</p> <p>Responses: - relevance, applied research - aim of self-funding</p>	<p>[Teaching and research differences.] Teaching staff can be more financially secure, than research staff.</p>	<p>Financial pressure about being - the need to be more <u>relevant to the community</u>. So there's an awful lot more <u>applied research</u> than ever happened previously. Expectations that you support your own salary so I think previously there used to be a lot of tenure for academics and they were centrally funded. In my experience at least in recent years that is now the exception rather than the norm. <u>Because all of our activity is self-funded, ...</u></p> <p>Except for the Category 1 funding they will pick up things like on costs and what not but for the vast majority it's through money that's brought in. It does mean that there's an uneven playing field in terms of staff at the university. <u>Teaching staff have more secure</u></p>

		<p>employment and whereas research-only staff they have one to three <u>year contracts</u>. If they don't get that funding they're lost which makes it very hard to be a research dominant university I would have thought.</p>
<p>Drivers (or responses): - translation of research</p>	<p>..... e.g. [Does the imperative to translate research into policy and practice equate to 'impact'?] Need to take opportunities, identify them [- be entrepreneurial?] [Facilitator: Yes does it also mean that we also have to become better at being responsive in this work pursuing it? Because I mean just the little I know about AHTA and DMAC I mean you are both academic but also very businesslike.]</p>	<p>I think if we get back to this relevance the need to translate findings into policy and practice. I mean I might have a skewed view on that because that's what I'm involved in is the translation. But I don't think something like [.....] would have been around 15, 20 years ago. I think too for universities to be more relevant they've tried to say okay well this is - this research has application.</p> <p>... the original contract that was - came - well started AHTA really was a consultancy to do [.....s] or systematic reviews really for government. It just built from there expanded to other contracts to - well it was just a Category 2 grant or a Category 2 tendered research rather than Category 1 grant. But from that applied research we've had two, three Category 1 grants built on top of the applied research.</p> <p>So whether it was a response or whether it just was accidental and- but then it was perceived to be relevant and grew from that. I mean the fact that it's grown from two people when we first started to over 20 means that at least the government - the policymakers are finding that work to be relevant and the university has benefited from that.</p> <p>Oh we're businesses. Well...</p> <p>... <u>I treat it like a business I have to</u>. I have - not ever having run a business beforehand but I treat it like a business how much money is coming in how much money is going out. Predicting for the tenders and the workups and things like that. Picking things that I</p>

	<p>Drivers (or responses) [E.g. AHTA unit]:</p> <ul style="list-style-type: none"> - impact on policy - metrics - duality of organisation - public good, benefit [see Foundations] <p>Balance, tension, conflict:</p> <p>← → drivers and responses:</p> <ul style="list-style-type: none"> - balance: commercial, business with 'academic' - metrics 	<p>Businesses</p> <p>Metrics is about relevant and impact, impact on policy – not just publications. [This connects with the earlier comments about financial pressure and sustainability.</p> <p>["....." means]</p> <p>Operate as a business with academic responsibilities. Two conflicting metrics.</p> <p>Self-funding, running a business. Academic need, to publish.</p> <p>Balancing. E.g. →</p>	<p>know we're going to do well at.</p> <p>Because HTA is about having an impact on policy. You see for me it's not the - what's the point of having a metric about impact that is on publication in a journal when you're actually changing decisions about access for the whole country. So for me this has more relevance and impact than the metrics that are currently being used for the academic side of things. That's why I'm passionate about it and that's why - because I want to make sure that there are good decisions. It's not just good decisions for an abstract, it's good decisions for me because I get access to things like this and my family and I know that it's been tested. I know it works and it's safe.</p> <p>So that's the passionate side of things. <u>But - so we are a business but we have responsibilities to an academic environment.</u> They are very hard to juggle because as I said we've got <u>two metrics</u> going here. Academics prefer how many publications you have, are you on a panel, are you - can you provide time for committee work, can you do all that stuff. At the same time we're self-funded and we're trying to run a business. So none of those activities are actually helpful for the business. ...</p> <p>... We've got to try and pick - so that's actually part of the picking and choosing in the business and what work we do I have in the back of my head, can I publish this. So I'll try - if I've got a <u>choice between something that's a critique of something that will never be publishable and has got commercial because of commercial sensitivities versus doing a report that I can actually get a licence to publish in a peer review journal I will pick that one.</u> Because it meets <u>two things to try and kill two birds with one stone.</u> Sometimes that's to the detriment of the business because I might get more money for doing the other thing. But that's the way it is.</p>
--	---	---	---

			<p>... Yes a big balancing act.</p> <p>What I do is everything we bring in - or when did I start this? Probably 2006 I think so we've been operating for about five years. We've built up enough steady contracts and then I instituted a <u>levy our own levy</u>. I mean we're levied...</p> <p>... Well some of the professional development is also included in the projects but yes it's for some things we can't put those costs into the project because we wouldn't be competitive. So professional development it will be going to the retreat when we go off for a day and try and have team building. It's to pay for release of time so when I give a talk for the uni seminar or if I'm on the school research committee or something like that there's a little bit of money extra in the system to pay for those times. Because otherwise - I mean I work most nights and weekends anyway but the business wouldn't be viable because of these other things.</p> <p>It's like writing a paper that's not to do immediately - even...</p> <p>... Every now and then we have a project which makes a loss and I try to minimise that as much as possible. We've never - AHTA as a whole is quite healthy. Sometimes there are projects that I do where I know there's not going to be a huge financial benefit from or I might make a loss. But there are other factors that might - that impact on the other academic side of things. So from a guideline that we wrote we knew we were going to make a loss on it - oh because there were all keruffles with its. But I persevered, we lost probably 20 or 30 grand but from that I've had one researcher who's been updating the searches and stuff. We've now got three papers with another three in the works.</p> <p>So I'll get six papers out of that particular project which feeds into the university academic side of things but at the detriment of the</p>
	<p>Responses (to business in a university):</p> <p>- finance models – ‘levies’</p>	<p>Implemented internal levies. A levy of X% on all contracts. Covers other operating costs in addition to delivering the contracted projects – cost of running the unit/business – professional development, staff time release for non-commercial activity (e.g. university seminar), participation in research committee, writing ‘papers’, etc.</p>	
<p>→ Responses (to duality of business, academic):</p>		<p>DUALITY: business, commercial and academic.</p> <p>Seeks to balance across the entire organisation, not in relation to each project or contract. [Some loss making, but, for example, will result in X academic papers.]</p> <p>[Balancing or is there a constant ‘tipping point’ that must be managed.]</p>	

		<p>business side of things. Then I'll get another contract like the [PBAC] contract which is all critiquing submissions. None of it is publishable but it's a huge amount of money. It's three or four million, I can't remember, so that pays for that.</p> <p>... It pays for that academic activity. <u>As long as I've got that dual activity going and there's enough ...</u></p>
<p>Foundational and response [?]</p> <ul style="list-style-type: none"> - balance - impartial, independent – business separation <p>Conflict?:</p> <ul style="list-style-type: none"> -independent research v. - funding source <ul style="list-style-type: none"> - independent research – critical to be impartial 	<p>... 'tipping point' ?</p> <p>Balancing: externally funded; impartial – separation from the university (university and centre branding. Business case for the centre.</p> <p>Some contracts through university commercialisation entity – perceived conflict? – still independent? Another form of balancing – as an independent body?</p> <p>Independent researcher but funding in some cases from a for-profit organisation.</p> <p>Balance of external versus internal research funding – internal meaning a 'grant body'. That could shift the perception of being and independent research centre.</p>	<p>I could pick up and move it someplace else and it would function fine. Because we pay for everything that we use and we're <u>externally funded</u>. I keep the university because of - I like the <u>university ethos</u>. It is an <u>impartial, supposedly impartial, independent sector</u>. <u>Having said that I've had to - I got a business case approved by the vice chancellor to have us retain our logo and be kept separate seeing it perceived as separate from the university.</u></p> <p>... Because there is <u>some research going through the university that is company sponsored and what not and it's going through ARI</u> which is where we go through. There could be <u>perceived conflicts of interest then as us being an impartial or independent body if the research that's coming through the university is - so we have a few issues there about whether the university is actually - at least in that case, an independent researcher because the funding is coming from for profit</u>. It's not coming from the university.</p> <p>...</p> <p>So that could be a tipping point. Do you understand what I'm meaning in the future with some - if the research funding becomes more external than internal?</p> <p>... Then it will lose that perception as being an independent research. Independent research is really important at least when it comes to drugs because - it's - I wouldn't say it's better quality it's</p>

	<p>E.g. evidence of independence – willing to publish negative results (and positive results).</p>	<p>more impartial.</p> <p>...</p> <p>Should be obliged to publish that. That's what I'm getting at. If there are some things where - I mean you'd hope that any self-respecting university would have something in their contract with the sponsors to say we will publish - <u>all results will be published irrespective of the findings and that it's out of the control of the company that's providing the money.</u> I don't know whether that's always the case though and it may be the case but the evidence suggests that things get buried when the outcomes aren't...</p> <p>... , <u>there's publication bias and it's a well-known thing.</u> I mean I've got tests for it when I do meta-analysis to work out there's a body of research here shown with the negative results that haven't been published. They've actually got a couple of journals that they've created that specifically to show negative findings. But they haven't really taken up much.</p>
<p>Drivers:</p> <p>- funding sources, shifts in</p> <p>→ responses:</p> <p>- students</p>	<p>Funding, pressure in terms of competition:</p> <p>Quality implications. Opened up to more students – changes to admissions.</p>	<p>...as the funding source has shifted. ...</p> <p>... yes. I think universities haven't - I mean they haven't got much option. They don't - the money is not there. I don't know where it's gone but it's not there as reflected in the whole, as I said, tenure positions and stuff like that. There is not - they are not available. If you don't have that then and the funding is all external for research positions where are you going to get the money from?</p> <p>... They've raised their fees they've <u>opened up the doors to let in anybody into the courses.</u> The problem is the calibre of the students that are coming out is dropping because their entry scores have dropped.</p> <p>... me it seems like the <u>university is trying to get money and that's</u></p>

<p>- university business model</p> <p>- separation – value of independent view</p>	<p>... and industry sponsored research.</p> <p>Universities are not using a business model that uses their strengths.</p> <p>Strengths: independence, impartiality, knowledge for knowledge sake (i.e. basic research).</p> <p>Separation; business model.</p> <p>University: independent view + e.g. separation/independence</p>	<p>either from the open slather trying to get as many students in through as possible. Or through partnerships with industry or getting industry sponsored research under the aegis of the university to be able to keep things rolling along. ...</p> <p>... I don't think necessarily that the university has been doing a good job at running the university on a business model. If - they should actually have thought about what their strengths are which are their independence, impartiality, knowledge for knowledge sake then what I would have done is probably to protect those interests and then having another sector which is all to do with the applied and that can leverage off - keep them a little bit separate. ...</p> <p>But I think there's got to be some - they're risking their core business or their core perception by the way they're getting into bed with other funding agencies or funding models at the moment.</p> <p>... I think from a government perspective given I deal with government all the time that's what they're looking for from a university. Is to try and get that independent view on something. ... AHTA has to be protected because I felt we were being sucked into the university and the university may not be perceived as independent for some things, particularly the drugs' stuff.</p>
<p>Driver:</p> <p>- research funding - fixed</p>	<p>Fixed research funding - competition</p>	<p>... the percentage rates are for Cat 1 grants for success are so small. It's seven per cent or three per cent or something. ARC Linkage you have a better chance which is why you're getting all these linkages with industry and what not. It's not linkage with government that's fine, I think the linkage with industry and if you're looking at something like mechanical engineering or whatever they might have always had that relationship with industry, I don't know.</p> <p>Or you get some core project that comes out of this knowledge for knowledge sake type thing and then gets patented and then that</p>

		gets marketed through other areas rather than being worked up internally.
<p>Responses:</p> <ul style="list-style-type: none"> - courses, teaching – as competencies <p>↔ Foundations:</p> <ul style="list-style-type: none"> - education – independent thinkers 	<p>Competency focus, training.</p> <p>Short-term.</p> <p>[counterpoint: education]</p> <p>The core business is about thinking – skills to think. This should be relevant to ‘society’ but is poorly marketed, communicated.</p> <p>[Thinking and society – equates to providing a public benefit.]</p>	<p>Yes and what you're expecting to see at the end, so what your graduate is supposed to look like which a training course isn't about that. It's all about trying to - it's again short term focus not long term focus.</p> <p>... a decent course is supposed to - or program is supposed to be able to do is provide graduates that actually have enough flexibility and it's about <u>how they think rather than what they think</u>. Do you know what I mean? The teaching them how to process and think for themselves and be independent thinkers so that they can apply that regardless of what's in front of them, which is a bit different from the training thing where you are just given this - a <u>skill</u>.</p> <p>... . But they're not getting that <u>core business which is about thinking, training thinkers and training researchers with skills that are portable</u>. I think if that was marketed better it would help. <u>Society would be -become aware about the relevance of universities</u>. I think a lot of the times they just think universities are - at least coming from the cohort people where I grew up, it was just pie in the sky you could sit around and do nothing. It's just not the case.</p>
SA:	<p>Distance.</p> <p>[Some other interviewees feel that distance is not an issue or less of an issue, others agree.]</p>	<p>I think South Australia - it's materially a distance thing. There are so many things from an academic perspective I would like to attend or see or get some of my people to go for professional development at other universities or training courses or things like that. To be able to build up capacity of the academic thinking and endeavours and what not and they just can't go because they're all on the east coast.</p>

		<p>Distance from student markets:</p> <p>Concentrations of capability (e.g. in):</p> <p>Three (3) universities in this state; divided strengths. One larger university in SA would be more competition (nationally and internationally) especially with respect to IP.</p> <p>E.g.</p> <p>Fragmentation (of capacity):</p>	<p>... in health technology assessment specifically up until last year we had no HTA conference in Australia. We've always got to go overseas. ...</p> <p>We do try and pull people from the eastern states to come here for our HTA course which works. I probably get about - or from other universities, local universities come to the course. There might be about - I don't know five, they might not be universities there's also industry. We probably get about a third of our students from elsewhere coming here. But I would say that that's not usual, it's usually the other way around where you are going somewhere else. So I think that's a problem.</p> <p>... [in relation to,] our biggest groups are in South Australia. We have a large - per capita we have a large concentration of health economists and we have probably two of the biggest HTA groups in the country in South Australia.</p> <p>... I think we having three universities means that instead of capitalising on our strengths we're dividing ourselves too much. ... There's also problems with IP, there's problems with all things whereas if it was one big university we'd be a lot more competitive nationally and internationally but we're not.</p> <p>... Because of that we've got - has - I don't know where they're getting their money from but they seem to have money coming from everywhere and doing very, very well. They are also exceptionally good at marketing. Flinders less so but they've got a good core of health economists there but if we had that all together - I mean I guess SAHMRI is trying to bring all that together. ...</p> <p>I think they're [SAHMRI] important to be a first point of call. They're trying to make it appear as though it's all together, it's all integrated. I don't know how successful that can be because we're not integrated and we've got competing priorities.</p>
--	--	--	--

	SA driver – small population; high local SA university competition.	Small population. Good environment and support for international students. SA universities competing against one another	... So the <u>population is too small</u> I mean we have a lot of foreign students who come in or students from overseas to learn. We could develop that further I think if we weren't <u>competing against each other</u> . Because it's - Adelaide is a nice town for overseas students to come and - because everything is within easy distance. We've got a lot of supporting type systems in place to help them transition and to learn.
	Profile:	First in family to graduate from university. Student then professional staff member, to academic. Knowing about the business.	... my career trajectory I would think. Coming in from <u>a first - a family that had nobody been to university. Coming to university as a student and then doing a professional staff role and then moving into academia</u> . I think I've probably got a - and because of that professional staff thing I know about the <u>business side</u> of stuff, the - I think a lot of academics are in ivory towers. They just don't realise how much work there is that goes on in the background to get them to do what they want. I think perhaps I've got a bit more appreciation of that.

