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Keeping it 'inside the fence': an examination of responses to a farm-animal welfare issue on Twitter

Animal Production Science, 2017; 58(3):435-444

Journal compilation © CSIRO 2018

Originally Published at: <http://dx.doi.org/10.1071/AN16634>

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20 June 2018

<http://hdl.handle.net/2440/112467>

1 **Title**

2

3 Keeping it “inside the fence”: An examination of responses to a farm animal welfare issue on
4 Twitter

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22 **Abstract.**

23

24 Social media sites have become common sources of information about current affairs, and
25 animal activist organisations, such as People for the Ethical Treatment of Animals (PETA),
26 use these networks as campaign tools to raise awareness against animal agriculture. The aim
27 of this study was to understand how an animal welfare issue was discussed Twitter, in
28 Australia. Twitter Application Programming Interface (API) data featuring key words and
29 hashtags were initially collected between April and May 2014 to examine tweets on animal
30 welfare issues in the absence of a triggering event. In July 2014, PETA released footage
31 portraying ill-treatment of sheep in Australian shearing sheds, generating 9,610 tweets in 7
32 days including themes such as disgust, condemnation of the cruelty, and calls to boycott the
33 wool industry. PETA's social media campaign began 24 hours before comment in
34 conventional news media online, highlighting the role of social media in leading
35 conventional media campaigning. Associated Twitter activity from the wool industry was
36 limited. It is concluded that Twitter is not currently an effective medium for conversations
37 between producers and the community about farm animal welfare, despite encouragement
38 from industry. While there are positives for producers and industry to be on Twitter,
39 including the promotion of their business and communication within their micro-publics,
40 Twitter as a platform may not ideal for generating dialogue between producers and the
41 community. Further research into how people engage with the content, not just through the
42 study of retweets and amount of traffic, is required to understand whether social media has
43 potential to change attitudes towards animal production.

44 **Introduction**

45

46 Farm animal welfare is a contentious issue in livestock production. Population growth,
47 urbanisation, growing disposable incomes and rising global meat consumption are increasing
48 demand for animal protein, raising considerable environmental, public health and ethical concerns
49 about animal production (Verbeke and Viaene 2000; Rawles 2010; Gunderson 2013).

50 Consumers are now actively encouraged to eat local, seasonal, wild, organic, fair trade or
51 sustainable (Ankeny 2012) and consider whether food has been produced in humane ways.

52 Consumers in the US (Olynk *et al.* 2009; McKendree *et al.* 2014) have extended concerns
53 about food from nutritional attributes (i.e. protein or fat content), to production methods to
54 limit impacts on the environment and animal welfare. Further studies have also demonstrated
55 that consumers view high animal welfare standards during production as an indication that
56 their meat is safe, healthy, better tasting, and of high quality (Verbeke *et al.* 2010, Bray and
57 Ankeny 2017). Taylor and Signal (2009) and Bray and Ankeny (2017) both highlight that
58 Australian consumers are also considering the welfare of animals when purchasing food,
59 however neither study examined actual purchasing behavior. Although the influence of
60 concern for farm animal welfare on purchasing behavior is an important topic for further
61 research in Australia, concern for farm animal welfare can also be linked with boycotting
62 animal products (Rothgerber 2015) and community behaviors (Coleman *et al.* 2016) that also
63 have the potential to affect the livestock production sector.

64

65 Consumers receive information about food production through the media (Hoban and Kendall
66 1994; Tonsor and Olynk 2011) and the role of social media in the distribution of topical
67 information is of increasing interest, such as communication during and after natural disasters
68 (Mark and Semaan 2008; Sutton *et al.* 2008) and online campaigning or protest (Bonilla and
69 Rosa 2015). Australia's National Farmers Federation (2013) has reported that it "seems clear
70 that the well-resourced and coordinated campaigns waged by animal rights/liberation groups
71 are having an influence on both consumers and retailers seeking a marketing edge", although the
72 impact of these campaigns on consumer purchasing behavior is yet to be examined empirically.

73 The 2011 ban on live-export of Australian cattle following a television exposé and subsequent
74 social media campaign is an example of the impact of the media on livestock production (Munro
75 2014, Schoenmaker and Alexander 2012, Tiplady *et al.* 2013). Concern about the impact of
76 increased social media activity by animal welfare activist groups has led Australian livestock
77 organisations to encourage producers to use social media, in particular Twitter, to "help
78 consumers get to the real story, and to have real conversation – one that is genuine and free from

79 spin” (Meat and Livestock Australia 2014). The use of Twitter during the live export issue
80 (Rikken 2013) and ongoing use by activist organisations and their supporters, the early
81 adoption by some members of the agricultural community to have weekly discussions on
82 Twitter using the #agchatoz hashtag (Burgess *et al.* 2015; White 2011), as well as its
83 emerging role as an important social media site contributed to the encouragement by industry
84 organisations for producers to use Twitter (Phelps 2011). Hence, the aim of the research
85 described in this paper was to explore the nature of communication about Australian farm
86 animal welfare issues on Twitter by examining Twitter posts, known as ‘tweets’. In addition,
87 this research aimed to explore the relationship between tweets and news media reporting
88 about farm animal welfare issues.

89

90 **Background**

91

92 News media interest in livestock production is often generated after animal-rights groups
93 initiate a campaign against an animal industry or practice or by some adverse event that
94 compromises animal welfare (Coleman 2010; Schoenmaker and Alexander 2012; Tiplady *et*
95 *al.* 2013; Munro 2014). While animal activism still utilises traditional campaigning methods
96 such as billboards and protests, technologies such as smart phones and the generation of
97 social networking sites such as Facebook and Twitter has transformed the means and
98 opportunities for activists to communicate, collaborate and demonstrate globally (Monaghan
99 2014). However, social media does not work independently of news media channels. In 2011,
100 the Australian Broadcasting Commission’s current affairs program ‘Four Corners’ aired ‘A
101 Bloody Business’ which showed the mistreatment of Australian cattle in Indonesian abattoirs
102 (Four Corners 2011). After this broadcast, animal rights organisation Animals Australia created
103 a website titled ‘Ban Live Export’ which was immediately joined by the social networking site
104 GetUp! who launched its fastest-ever petition campaign, receiving 35,000 signatures in just
105 five hours (Schoenmaker and Alexander 2012). The RSPCA and Animals Australia websites
106 crashed after receiving 2000 visits per minute. This social media onslaught was supported by
107 traditional media and radio and the overwhelming response from the public is claimed to be the
108 reasoning behind the suspension of live cattle trade to Indonesia (Munro 2014). This example
109 highlights the importance of the relationship between social media and traditional media
110 channels to drive significant social and political change.

111

112 Ahmed and Jaidka (2013) stated that social networks have created a “critical force in
113 generating and disseminating information ... especially in situations such as protests, where

114 public activism and media coverage form a key symbiotic relationship”. Monaghan (2014)
115 suggests reasons for the use of social media include the low cost of online communication,
116 enabling a powerless resistance to organise against a resource-rich and powerful opposition;
117 the promotion of a joint identity across a dispersed population which can be mobilised by
118 activists in pursuit of interests perceived as core to that identity; and the creation of
119 communities that adopt issue-based communication to strengthen the participants
120 identification with the movement. Bruns (2017) highlights that the main driver for users to
121 connect on Twitter is shared interests, thus generating communities around an issue or
122 interest. The building of communities on Twitter is clearly evident by the #agchatoz
123 community which has been created because of a mutual interest in agriculture (Burgess *et al*
124 2015). More recently, these communities have been theorised in the research literature as
125 *micro-publics* (Barbour *et al.* 2014; Moore *et al.* 2017). Unlike in traditional broadcast
126 media, within social networks the individual is no longer part of a collective, but rather an
127 individual connected to multiple publics. The generation of the micro-public is centered
128 around the performative self, i.e. how the user decides to generate and portray their online
129 identity (Moore *et al.* 2017). For example, someone who follows a particular football team is
130 more likely to share content about football than someone who is an active follower of tennis
131 and basketball. In each public, the individual is a node but they are simultaneously orbiting
132 nodes in other networks. Although these networks overlap, they can still be thought of as
133 having a central point which is the user’s identity, hence networking activity amongst friends
134 and followers across these networks can be described as a micro-public (Barbour *et al.*
135 2014). Creation of the micro-public takes into account the practices of social media such as
136 tagging, sharing, and mediated expression in forms of personal images, memes, and likes and
137 dislikes. This idea of the micro-public brings into question how far information shared within
138 these communities extends, for example whether information related to an animal welfare
139 issues is being seen by those outside of the existing communities that already share a specific
140 interest.

141

142 Twitter is a microblogging service which enables users to publish 140 character bursts of
143 information termed “tweets”, enabling social interaction, focusing on sharing of opinion and
144 information to followers (Kwak *et al.* 2010). Twitter also allows users to remain anonymous
145 if they prefer. Users do not need to post information about themselves to ‘follow’ a user or be
146 ‘followed’, which enables the site to focus less on who the person is and more about what they
147 have to say. Twitter is used by 2.8 million Australians (12% of Australia’s population)
148 (Bochenski 2014), and 338 million users worldwide (Statista, 2017). While there are fewer

149 Australians on Twitter than there are on other social media platforms such as Facebook, the
150 active encouragement from the agricultural industry for producers to use Twitter (as
151 described previously) makes this platform an important site for social research.

152

153 Twitter has the ability for users to search for information of interest with the use of hashtags
154 (keywords prefixed with the hash symbol ‘#’, creating searchable text) (Bruns and Liang 2012).
155 These hashtags provide a mechanism for conversation between users, even if the users are not
156 following one another, and can also be followed by visitors to the Twitter website who do not
157 have their own Twitter profile (Bruns and Burgess 2011, 2012). Bruns and Steiglitz (2012)
158 distinguish three types of hashtags; *ad hoc* ones which transpire in response to breaking news
159 or other events; *recurring* ones which users use to contribute repeatedly to a certain topic
160 (such as #AgChatOz discussions); and *praeter hoc* ones which organisations encourage users
161 to adopt when tweeting about events such as TV shows or a conference. However, Bruns and
162 Moe (2013) further differentiate hashtags as *topical* or *non-topical*. They suggest that *topical*
163 hashtags are used to contribute to discussions about a particular topic while non-topical
164 hashtags (such as #beef or #fail) are emotive markers and can be applied to any tweet.

165

166 **Methods**

167 A social constructivist framework (Creswell 2013a) was used to guide the development of
168 the research design and analysis. The use of social media in research is increasing and has
169 advanced from several disciplinary and methodological bases. Novel mixed-method,
170 interdisciplinary approaches for the qualitative and quantitative study of ‘big data’ datasets
171 collected from social media platforms (Boyd and Crawford 2012) have tended to use custom-
172 made research tools which are generally unavailable to other researchers (Bruns and Liang
173 2012).

174

175 Although Twitter used by a smaller percentage of Australians than other social media
176 platforms, it has been used by researchers interested in examining social phenomena due to
177 its publicly accessible Application Programming Interface (API) (Chorley and Mottershead
178 2016), and is more easily accessible than other social networking sites such as Facebook. The
179 API is made of two parts; the search or REST API or the streaming API. The REST API
180 allows past tweets to be retrieved through a request from Twitter at a cost, while the
181 streaming API allows current tweets to be collected and archived using specific keywords,
182 hashtags and users. This research utilised the streaming API through the freely accessible
183 Twitter Archiving Google Spreadsheet (TAGS), developed by Hawksey (2013)

184 (<http://mashe.hawksey.info/2013/02/twitter-archive-tagsv5/>) and relied heavily on the use of
185 hashtags and specific key words.

186

187 *Non event-based sampling*

188 A major challenge in doing research on the use of Twitter as a communication tool is to
189 capture a comprehensive and representative sample of tweets which relate to the topic of
190 interest (Bruns and Liang 2012). Data collection began by selecting putative hashtags and
191 search terms (where topics did not have specific hashtags) based on the authors' knowledge
192 of online discussions and recent media articles about animal welfare in livestock production.
193 A manual search of each hashtag and search term ensured they were relevant and useful,
194 however general search terms often were categorised as *nontopical* hashtags thus retrieved
195 unrelated information, e.g. when searching for "beef", the majority of the tweets were images of
196 steak dinners or the user had a disagreement or "beef" with someone. The search terms were
197 broadly categorised as either aligning with animal welfare activists or livestock production
198 industry opinions to ensure a diversity of views were captured. The refined list of *topical* search
199 terms and hashtags is described in Table 1. Each search topic was entered into TAGS and tweets
200 were collected hourly. Tweets were collected initially for 31 days (April 30 – May 30 2014) to
201 explore activity and content because the potential size and content of the data around the
202 topics were unknown. Summary data were monitored frequently to ensure a suitable collection
203 period.

Table 1: Search terms and hashtags used for analysis of Twitter activity

Search term/hashtag	Justification
AgGag	Largely an American debate, ‘ag-gag’ has been topical in Australia due to recent actions by activists i.e. filming inside a Young, New South Wales piggery without permission and posting the footage to YouTube (McAloon 2014). Voiceless hosted a series of lectures during this period, inviting American journalist Will Potter to talk about ‘ag-gag’ laws. Potter was a large contributor to tweets about ‘ag-gag’.
#banliveexport	The live export of cattle and sheep was criticised in 2011, when the Australian Broadcasting Commission (ABC) aired ‘A Bloody Business’ on their program Four Corners (Four Corners 2011). This program contained footage obtained by Animals Australia of the mistreatment of Australian cattle in Indonesian abattoirs. Subsequently, it became a topical issue for mainstream and social media (Munro 2014) which led to the generation of the hashtag.
Battery hens or #batteryhens or battery cage	Consumer questions about animal production practices has resulted in the use of battery cages has becoming controversial, with supermarket and fast food chains stocking or using only cage free eggs.
#factoryfarming or factory farming	In recent years, factory farming practices such as battery cages and sow stalls have been under scrutiny by animal rights activists, leading to increased consumer awareness of welfare issues.
#farmers4animalwelfare	@farmers4animalwelfare and #farmers4animalwelfare was created by a group of social media users and livestock producers to create a voice for those interested in developing a better understanding of on-farm welfare practices. Both were created after Coles supermarket started selling Animals Australia’s ‘Make It Possible’ shopping bags in June 2013 (Lewis and Ockenden 2013)
#hadagutful (<i>sic</i>)	#hadagutful (<i>sic</i>) was generated by people who supported the Australian live export trade as an alternative voice to the activist campaign. #hadagutful was used in the organisation of a pro live export rally held at Port Fremantle, Western Australia, promoted largely through social media channels such as Twitter.
#makeitpossible	#makeitpossible was Animals Australia’s campaign aimed at stopping factory farming practices including the use of sow stalls and battery cages in food production.
#saveliveexport	#saveliveexport was used as an alternative to #banliveexport, as it was used by users who supported the live export trade during the suspension in 2011
Sowstalls or sow stalls	Animals Australia have run a number of campaigns to increase consumer awareness of the welfare issues associated with sow stalls. Coles supermarkets have recently advertised their brand as ‘sow stall free’.

206 Data were exported to an Excel spreadsheet where duplicates, tweets in languages other than
207 English and tweets unrelated to the topics of interest were deleted. Although #AgChatOz is one
208 of the most utilised hashtags by the online agricultural community in Australia, it was omitted as
209 there were no scheduled discussions about livestock production, and no conversations about
210 livestock production were collected. The #makeitpossible hashtag, used by the Australian animal
211 welfare activist group Animals Australia, was adopted by a Korean electronics company and
212 generated hundreds of tweets. After reviewing the tweets, it was discovered that there were
213 no tweets relevant to the research collected in the 31-day period therefore the search term
214 was omitted from the results.

215

216 To further understand the nature of communication on Twitter, the number of original tweets, re-
217 tweets and web-generated tweets were counted. Original tweets were those that a particular user
218 has written and published themselves. A retweet is the rebroadcast of content onto a user's feed
219 that was originally published by another user. Web-generated tweets were those which were
220 generated by 'clicking' on a 'button' on an organisation's web page to send an automatically
221 generated message. Web-generated tweets are often used by animal activist organisations,
222 offering users an option to tweet the content they just saw on a web page, for example after
223 watching an embedded video or reading information into their Twitter feed to share it with
224 their network.

225

226 *Event-based monitoring*

227 On July 9, 2014, a video titled "Sheep Punched, Stomped on, Cut for Wool" was released via
228 YouTube by People for the Ethical Treatment of Animals (PETA 2014) and was shared on
229 Twitter bringing the issue of mistreatment of sheep in Australian shearing sheds to the attention
230 of an Australian and global audience. Purposeful sampling of data related to this issue was
231 initiated to represent a key social media event related to livestock production. The data collected
232 from this event were collected using TAGS for seven days, using the keywords PETA and/or
233 wool. To further understand the relationship between social and conventional news media, the
234 number of news stories about the controversial footage published in conventional news media
235 channels were counted using Google News and URLs included within tweets.

236 All data collected were quantified and analysed thematically (Braun and Clarke 2006; Creswell
237 2013b) with each tweet being treated in its entirety as a single piece of text. Coding was limited to
238 the generation of initial, broad codes which describe the content of the tweets, and themes were
239 identified from the codes. Tweets have been reproduced verbatim, including all abbreviations,
240 spelling and grammatical errors.

241 **Results**

242 A total number of 14,642 tweets were collected during the non-event and event-based
 243 sampling periods using the specified hashtags and keywords shown in Tables 2 and 3.

244

245 **Table 2** Number and type of tweets per topic. Differences in collection period were due to
 246 technical issues with the collection program.

Topic	Collection period (days)	Users	Original tweets	Web generated tweets	Retweets	Total tweets
Ban live export	30	157	285	160	956	1,401
Had-a-gutful (sic)	30	10	20	0	93	113
Save live export	34	16	23	0	3	26
Ag gag	30	246	1,414	0	1,038	2,452
Farmers for animal welfare	30	1	18	0	11	29
Sow stalls	34	28	38	1	26	65
Factory farming	30	350	41	3	337	381
Battery Cage	26	399	54	349	162	565
Total		1,207	1,893	513	2,626	5,032

247
 248
 249
 250
 251
 252

253 **Table 3** Number and type of tweets from the first 24 hours and seven days of the PETA wool
 254 campaign

Topic	Collection Period	Users	Original tweets	Web generated tweets	Retweets	Total tweets
PETA wool campaign	24 hours	2,134	1,211	1,206	2,014	4,431
PETA wool campaign	7 days	6,861	2,465	3,335	3,810	9,610

255

256 *Non event-based sampling*

257 During the 31-day sampling period (30 April to 31 May 2014), using hashtags and keywords,
 258 5032 tweets were collected from 1,207 (Table 2), and the description of the tweets for each of
 259 the hashtags and keywords is provided below.

260

261 Ban live export: With the absence of a news event related to live export during the collection
 262 period, the tweets collected using #banliveexport had little originality in content, as reflected
 263 by the high proportion of retweets (68%). There were also large amounts of web-generated
 264 tweets originating from Animals Australia rather than independent users. Many of the tweets
 265 contained a URL directing users to other sources of information.

266

267 Had a gutful (as in had a gut-full/to be sick of a topic): There was very little activity generated from
 268 #HadAGutful (113 tweets). Although originally associated with a save live export protest, close
 269 inspection of the tweets showed Twitter users adopted the hashtag to state why they have ‘had a
 270 gut-ful’ of live export i.e. opposing the trade. Thus, it has become a common hashtag used by
 271 users both for and against live export.

272

273 Save live export: #saveliveexport was used very little, with a total of three tweets during the 30-
 274 day collection period. One user used the hashtag, along with the ban live export hashtag in the
 275 following tweet, suggesting the content was designed for a broader audience.

276 “Cattle export hits the million mark, up 54%. #AusAg #Beef #LiveExport #BanLiveExport
 277 #SaveLiveExport <http://t.co/78LoYcIIGO>”

278 Ag-gag: ‘Ag-gag’ comprised many tweets from international users, mainly from the United
279 States of America. Unlike ban live export, there were few web generated tweets. However, most
280 retweets could be traced to a single user (323 retweets in total). Many tweets included a URL to
281 further information.

282

283 Farmers for animal welfare: There was little use of #Farmers4AnimalWelfare (29 tweets). Most
284 tweets were about everyday farm work and many were linked to a Facebook page. An example
285 is “Crawling under the shearing shed to rescue a 2 week old puppy #farmers4animalwelfare”

286

287 Sow stalls: Few tweets about sow stalls originated from Australia (17 tweets). However, there
288 were some international tweets related to Woolworths in South Africa who have recently
289 pledged to phase out sow stalls. A common theme was that sow stalls are cruel and users were
290 advocating for phase out and ban.

291

292 Factory farming: In the factory farming data, there were few original tweets, and many retweets
293 (88%). Many of the URLs featured in the tweets were links to blogs from organisations such as
294 the American Society for the Prevention of Cruelty to Animals (ASPCA). Key themes included
295 that factory farming is destroying landscapes and that farming animals is cruel which can be seen
296 in the example below.

297 “#Factoryfarming in the top two #climatechange enhancers, don't see anyone cutting down on
298 meat or dairy & it's not in the news #tytlive”

299

300 Battery cage: The data collected using ‘battery cage’ as a search term was made of large
301 amounts of web generated tweets (349) and retweets (162) with little originality. The main topic
302 was about lobbying the Greek government to ban battery cages, which was a current campaign
303 from ‘Compassion in World Farming’ (<http://www.ciwf.org.uk>)

304

305 *Event-based twitter activity*

306 The PETA wool campaign triggered a total number of 9,610 tweets over seven days, with over
307 4,000 tweets in the first 24 hours (Table 3), which is in stark contrast to the Twitter activity
308 recorded above

309

310

311

312

313 Key themes which emerged from the PETA wool campaign are described in more detail in Table
 314 4. Example tweets in these tables have been reproduced verbatim, including abbreviations,
 315 spelling and grammatical errors. Cruelty featured prominently in the PETAwool campaign
 316 tweets. Capital letters and online expletives and acronyms (i.e. WTF) were often used to
 317 emphasise the acts which occurred against the sheep. The descriptions of sheep were emotive
 318 and the industry was portrayed as cruel. Disgust was also a theme, with people expressing shock
 319 at the way sheep were treated in the video used in the campaign. A number of tweets came
 320 from people who felt disgusted that this treatment of sheep occurred in Australia. Several users
 321 suggested boycotting the use of wool as a way to stop animal cruelty. Users urged others to swap
 322 wool for alternatives, suggesting they would rather not use wool. Sheep farmers were perceived
 323 by users as untrustworthy to produce wool and maintain welfare standards, suggesting
 324 producers require supervision during shearing. A major theme which emerged was the
 325 reference to Australia. The wool industry is seen as a patriotic, iconic industry and the nation has
 326 been previously described as being “built off the sheep’s back”. Key messages included that
 327 cruelty to sheep is a national disgrace and Australia should be ashamed. Interestingly, there were
 328 no conversations between representatives of industry and activists or the broader public in the
 329 collected tweets. While there were some tweets collected from news organisations such as ABC
 330 Rural, the tweets collected were dominated by those opposing the wool industry.

331

332 **Table 4** Examples of tweets from the PETA wool campaign categorised under each theme

Tweet
<i>Cruelty</i>
“Check out CRUEL: Sheep STOMPED on, PUNCHED for wool https://t.co/C6mrYlqY46 ”
“I love wool, I believed it to be a perfect product, sustainable, ethical, cruelty free. It could be but WTF! http://t.co/PTEIxZp0PD ”
“People often ask me why it is cruel to buy wool. This post explains just how badly poor gentle sheep are treated. http://t.co/Mvyzj7jQtO ”
“#sheep cruelty claims; http://t.co/n1dauStMm6 @farmonline @WoolProducers #wool #agchatoz”
“Time to rethink wearing wool. Serious cruelty. http://t.co/ndKr1QNXHV @peta”

Disgust

“DISGUSTED with Australias treatment of sheep in the wool industry. Thank You PETA for the exposure #PETA #RSPCA #AnimalWelfare”

“I can’t bring myself to watch this, but I read the full nots and am so angry that ppl can get away with it. <http://t.co/QEBAcFETQb> @peta”

Boycotting wool

“DON’T WEAR WOOL! <http://t.co/5qfQo2Ffvb>”

“Swap wool 4 acrylic or other man made material that’s cruelty free.
<http://t.co/tfvCAAi6Xh>”

“Here’s why you absolutely need to give up #wool <http://t.co/7nzxNTdhRt>
#AnimalCruelty #animalabuse #sheep”

“I’ll never #knit with #wool #yarn. Period. <http://t.co/LFW5R5EKhH> #sheep #knitting
#woolfree... <http://t.co/uYaQmjYNGv>”

“If it says wool, leave it on the shelf. <http://t.co/pAyTACpOmx>”

“I would rather not have wool at all... <http://t.co/Lxlb5DqdKR>”

“If we continue to be the consumer, the production continues... HELP NOW: Sheep Punched,Stomped on,Cut for Wool <http://t.co/0hpDuzlfdX> via @peta”

“I hope these devastating videos from PETA inspire you to forever say no to buying anything made from wool. <http://t.co/bboz3XdjrA>”

“People don’t realise how terrible the wool industry is! I certainty will never purchase items made from wool! @PETAUK @peta2 @peta”

“The best thing that you can do for sheep is refuse to buy wool! It’s easy to check the lable when you’re... <http://t.co/klCAednFrL>”

Farmers/producers can’t be trusted

“Such #animalcruelty Again... Farmers cant b trusted with #AnimalWelfare”

“Woolgrowers need more supervision in their sheds. Latest PETA outcry on shearers is not what we need”

Australia

“Investigators in Australia and the U.S. found that shearers killed, beat, kicked, and throw terrified sheep. <http://t.co/yEGUGwdHph> via @PETA”

“They’re back. PETA launches a fresh attack on the Australian wool industry alleging new abuse across 3 states <http://t.co...>”

“Animal activist group @peta takes aim at the Aus #wool industry with shocking footage from shearing sheds #agchatoz <http://...>”

“PETA campaign targets Australian woolgrowers – Agriculture – Sheep – General News – Farmonline National <http://t.co/VxKf7...>”

“Welfare group targets abuse in Australian shearing sheds. Wool industry says it’s isolated. <http://t.co/LUq6m1tF6n> @abcrural...”

“PETA US went undercover in the Australian & US wool industries. What it found was worse than anyone cld have imagined <http://t...>”

“@RdioAU @SkyNewsAust <http://t.co/UKqAT2ANCY> fix this #australia”

“DISGUSTED with Australias treatment of sheep in the wool industry. Thank You PETA for the exposure #PETA #RSPCA #AnimalWelfare”

“They’re back. PETA launches a fresh attack on the Australian wool industry alleging new abuse across 3 states”

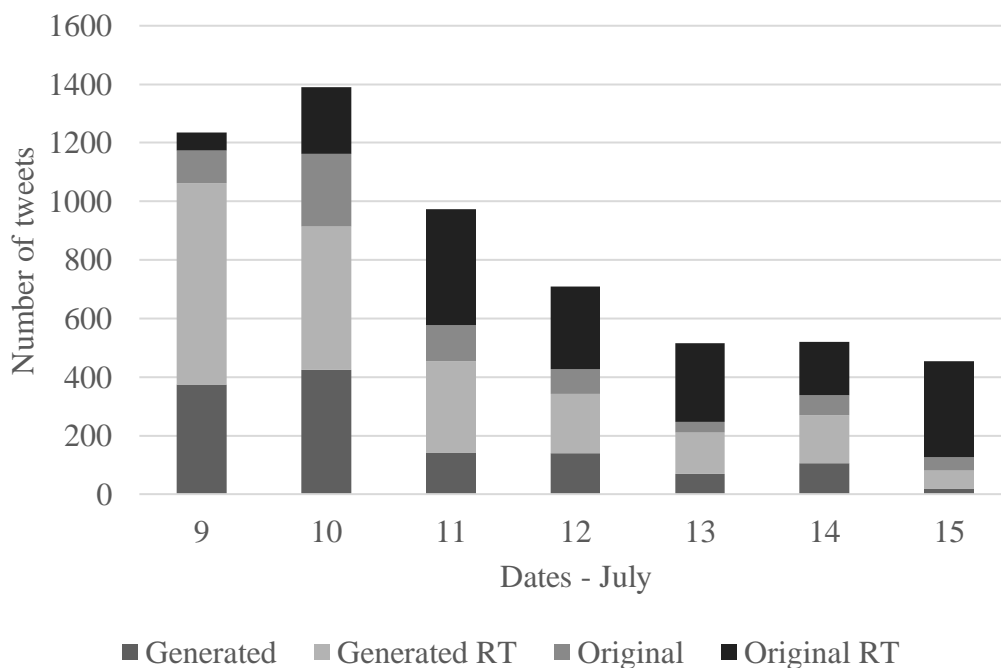
“What a disgrace Australia!! HELP NOW: Sheep Punched, Stomped On, and Cut for Wool: <http://t.co/Z4vUdeXkin> via @peta”

333

334 *Social media versus news media*

335 Tweeting activity associated with the PETA wool campaign provided an opportunity to compare
336 the ‘life cycle’ of a farm animal welfare activist campaign in news media and on Twitter. Tweets
337 from the first seven days of the PETA wool campaign were counted to capture a snapshot of the
338 type of online traffic a breaking news story can create and to describe the activity which occurs

339 on Twitter around an emerging topic. This activity is seen in Figure 1a which illustrates a
 340 'peak' in activity 24-48 hours after the video was released on YouTube and subsequent Twitter
 341 activity by PETA with a decline to stagnant numbers in following days. A similar trend was seen
 342 in news stories published about the shearing video, as highlighted in Figure 1b. However, the wave
 343 of news stories peaked two days after the story had made its debut on Twitter (Fig. 1b). The
 344 relationship between the news media and social media became evident during analysis due to
 345 a large number of tweets containing links to news articles. There was a decline in activity in
 346 social media by day three of PETA's wool campaign, suggesting loss of interest which is
 347 reflected by an overall decline in tweets and the proportion of retweets increasing (Fig. 1a).
 348 Interestingly, There was also shows peak in international media activity more than three
 349 days after the campaign began (Figure 1b), although tweets were seen from PETA's
 350 international organisation shortly after the campaign began, further emphasizing the lag between
 351 Twitter and the news media. International news articles were included in the analysis as tweets
 352 generated from the PETA campaign were not able to be separated based on geographical location,
 353 thus news articles being tweeted were also published in international press.
 354

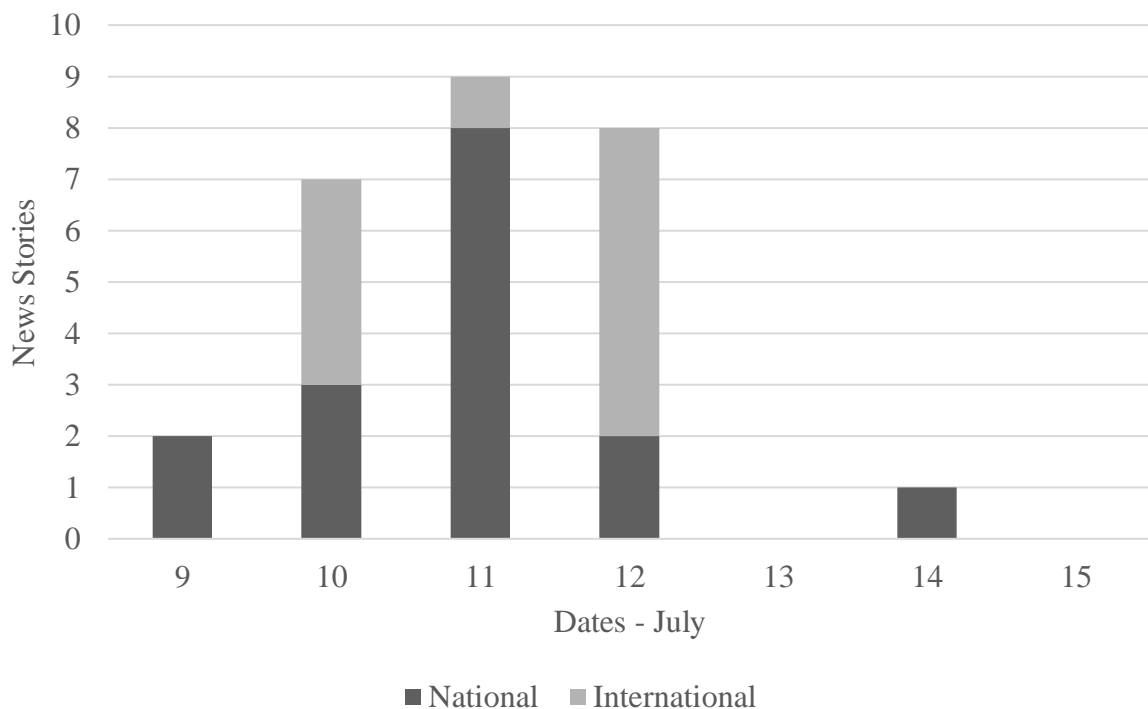


355

356 **Fig. 1a** The total number of tweets, generated tweets, retweets (RT) of generated tweets,
 357 original tweets and retweets of original tweets from the first seven days after the PETA wool
 358 video release.

359

360



361

362 **Fig. 1b** The number of conventional online media news stories published over seven days

363 after the PETA wool campaign release.

364

365 **Discussion**

366 *Campaigns*

367 Campaigns enable organisations to generate large amounts of traffic on social media in a

368 short space of time, and has the potential to generate activity outside of the micro-public. The

369 cessation of the exporting of live Australian cattle to Indonesia and other destinations

370 continues to be an issue for activist organisation such as Animals Australia. Following ‘A

371 Bloody Business’ in 2011, another documentary, titled ‘Another Bloody Business’, aired

372 which highlighted the poor treatment of sheep (Four Corners 2012), which was followed by

373 billboards and other advertising material calling for a ban on live export and which

374 continues to feature in Australian cities (Jooste 2016). On Twitter however, the hashtag

375 #banliveexport, which sparked an “online frenzy” in 2011 (Rikken, 2013), contained only

376 1,401 tweets during the collection period in 2014 (Table 2) albeit by few users with 80% of

377 the tweets being retweets or web-generated tweets. In contrast, the PETA wool campaign

378 generated 9,610 tweets over seven days (74% being retweets or web-generated), with over

379 4,000 tweets in the first 24-hours (72% being retweets or web-generated). The viral nature of

380 this campaign is partly due to PETA’s pre-existing online audience of 522,860 followers

381 (Twitter 2014) who disseminated news about the wool campaign quickly, as well as the

382 nature of the campaign itself. As seen in both these examples, and as highlighted herein
383 (Figures 1a and 1b), the lifespan of a campaign is similar to that of the news cycle, where
384 there is large amounts of traffic generated early which later slows down when the issue is no
385 longer “hot off the press”. The live export example also highlights the ability for an issue to
386 persist online, even years after the beginning of the campaign.

387

388 Activist and social movement campaigns strive to be ‘affectively charged’ (Kuntsman 2012)
389 in attempt to gain recognition and build momentum around issues (Rodan and Mummery
390 2014). As seen in the PETA wool tweets (Table 4), the use of strong, emotive language was
391 used to help push their message across and generate a response from the online community.
392 Words such as cruelty and disgust highlight dislike towards the treatment of sheep seen in
393 the footage. There was also the idea of trust, suggesting farmers cannot be trusted with the
394 welfare of animals which relates to the broader agenda of animal activists opposition to
395 animal agriculture. Emotive language can spark feelings of outrage, resulting in social media
396 user’s feeling like they need to share this information with their network. References to
397 Australia appeal to a sense of patriotism, with farming, and the wool industry in particular,
398 being associated with the growth of the nation. This idea is echoed by associating the poor
399 treatment of sheep with the idea of being ‘un-Australian’. This use of emotive language and
400 the resulting response from the online community can be used to explain why there was not
401 just a proliferation in activity around the campaign, but the subsequent attention the
402 campaign received from the news media as discussed below.

403

404 *Social vs news media*

405 While commonly news media is shared on social media channels, this research clearly
406 indicates that social media has the capacity to lead news media stories within the new model
407 of the news cycle (Onderstall 2012), particularly in association with a campaign. PETA’s
408 wool campaign provided an opportunity to compare activity in both news media and on
409 Twitter about the same issue and the relationship between the news media and social media
410 became evident during analysis. In the case of the PETA campaign, industry responses
411 appeared in the conventional media (Barbour and Farley 2014, Bettles 2014) days after the
412 campaign started, and after the outrage seen online had passed. Social media, particularly
413 Twitter, is relied on heavily by journalists to develop followings and build connections with
414 the public (Moore *et al.* 2017) to not only distribute news but also to follow news as it
415 happens. The evidence of news media lagging behind social media activity in this research
416 highlights the necessity for industry representation online to respond faster if industry want

417 to become part of the conversation and be involved in more traditional news journalism to
418 increase the reach of their story.

419

420 *Micro-publics*

421 One of the motivations for completing this research was in response to concerns about the
422 anti-livestock production content being shared on social media. While hashtags are an
423 important part of tweets to increase the potential audience reach, content being shared
424 usually goes as far as a user's *micro-public* (Barbour *et al.* 2014). This is important for the
425 current research for two reasons. The first reason is that animal activists are sharing content,
426 and unless it is gaining traction in news media channels, exposure to the content is occurring
427 to those within their micro-public. What is interesting in the case of animal welfare online is
428 that while activists and industry do not share the same values, their micro-publics online
429 interact and overlap as they both hold an interest in what the other is doing. However, it is
430 now understood that large amounts of traffic does not equate to an increased amount of
431 engagement with the content outside of the network. The second reason is that, while it
432 developing a network of producers and people working within the agricultural sector is
433 beneficial for other reasons such as decreased isolation, encouraging people to sign up to
434 Twitter will result in these users creating their own micro-public and thus information they
435 share is only going to go as far as those people within their following, as seen in the activism
436 group.

437

438 *Activism vs slacktivism*

439 The number of web-generated tweets and re-tweets throughout the collection period, being
440 70% of the tweets is a novel finding and may be an indication of "slacktivism" rather than
441 activism or actual concern for animal welfare. Online activism is often criticised as
442 slacktivism as there is no evidence that sharing or liking a post online results in any real life
443 change of behaviour (Glenn 2015). Due to the high number of retweets seen throughout the
444 various search terms of this research, in particular the search terms associated with PETA's
445 wool campaign, this could be considered as an example of slacktivism and highlights the
446 need for further research into relationships between content shared on online profiles and
447 behaviour change offline. Another criticism of online activism could also be centered around
448 the idea of the micro-public. While those participating in online protest may feel like they are
449 making a difference, it raises the question as to whether those not involved in the
450 organisation or those not passionate about the cause are being impacted by or exposed to the
451 activism or whether they continue to scroll past and ignore the content.

452

453 *Industry voices*

454 Australian farmers use Twitter as a platform to engage in conversation, whether it is with the
455 broader community or to talk to other farmers through initiatives such as #AgChatOz. Taking
456 part in conversations online decreases the feeling of isolation commonly felt amongst those
457 living in rural communities (Brumby et al. 2010). Hashtags such as
458 #Tweetsfromthetractorcab and #AusAg have also been used to generate conversation and
459 awareness of agricultural production on Twitter. There is also a belief that those involved in
460 agriculture should ‘sign up’ to Twitter to promote industry and to generate discussions with
461 those outside of agriculture, particularly about animal production methods. However, the
462 inability to identify numbers of tweets supporting industry positions using the search strategy
463 described herein reveals that these discussions are not occurring in the same domain as
464 activist, and arguably in mainstream conversations, about farm animal welfare. It could be
465 said that these conversations are remaining “inside the fence”. Hashtags are fundamental in
466 the search process and not including them in a tweet reduces the chances of tweets
467 disseminated to a wider audience thus limiting the tweets reach. Along with hashtags, the
468 question of exposure outside of the micro-public is raised – whether conversations and
469 information about animal welfare from industry are being seen outside of the Australian
470 agriculture micro-public that has been created.

471

472 **Conclusions and implications**

473

474 This research suggests that in the absence of a triggering event or campaign, concern about farm
475 animal welfare in Australia expressed on Twitter originates from a relatively small number of
476 individuals or groups and consists largely of retweets and web-generated tweets. In the presence
477 of a triggering event or campaign, organisations with large followings and networks are able to
478 mobilise support quickly generating a large amount of activity. However, analysis reveals that
479 much of this activity requires a single click, either pressing a button on a website or retweeting,
480 rather than composing an original message, which may not be a reliable indicator of
481 community concern. Further research into social media campaign activity and level of
482 engagement with an issue, and in particular whether this engagement extends to other domains both
483 on and offline, for example signing petitions, boycotting products, or attending protests would be
484 assist in further understanding the relationship between social media activity and concern. In
485 addition, it would be valuable to understand whether people who do not usually participate in
486 activist campaigns are using social media to actively seek and source information about farm

487 animal welfare, and which sources they trust to increase understanding of how powerful a
488 social media campaign is in shaping perceptions around topical issues.

489

490 This research also reveals that online traffic about farm animal welfare on Twitter is largely
491 dominated by animal activists and their network. However, there are Australian farmers in
492 Twitter and it is likely that discussions about farm animal welfare and the impact of activism are
493 occurring within their own micro-publics. The absence of producer voices in the main
494 discussion, particularly during the PETA campaign, is of concern if there is to be a conversation
495 about farm animal welfare between producers and consumers. The complete absence of a
496 dialogue between producers and consumers in the sample suggest that social media, or more
497 particularly Twitter, is not the medium through which this conversation is likely to occur naturally,
498 despite encouragement by industry for producers to get involved. This is more important if
499 social media activity becomes accepted by industry as a proxy for community sentiment
500 because, demonstrated by this research, it is not a reliable quantitative indicator. Further research
501 into how and why farmers use social media would increase understanding of how farmers can
502 contribute to digital conversations on agricultural issues. Finally, the role of agricultural
503 organisations on social media needs further exploration to further encourage participation by
504 food producers in conversations that affect them.

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