Digital Dialogue?

Australian Politicians' use of the Social Network Tool Twitter

Will J Grant,[1] Brenda Moon[2] and Janie Busby Grant[3]

The recent emergence of online social media has had a significant effect on the contemporary political landscape, yet our understanding of this remains less than complete. This article adds to current understanding of the online engagement between politicians and the public by presenting the first quantitative analysis of the utilisation of the social network tool Twitter by Australian politicians. The analysis suggests that politicians are attempting to use Twitter for political engagement, though some are more successful in this than others. Politicians are noisier than Australians in general on Twitter, though this is due more to broadcasting than conversing. Those who use Twitter to converse appear to gain more political benefit from the platform than others. Though politicians cluster by party, a relatively 'small world' network is evident in the Australian political discussion on Twitter.

Much has been made of the impact of social media on the modern political landscape. For enthusiasts, social networking tools such as Twitter, Facebook, MySpace and blogging and video platforms offer powerful new ways to connect, influence and engage fellow citizens – perhaps ushering in a radical transformation in the way citizens connect with and influence their government and politicians connect with the public. Within this, politicians throughout the democratic world have begun to embrace such tools as a new way to connect with their constituents, shortcutting the heavily mediated connections offered by traditional media (Keane 2009a; Posetti 2010; Westling 2007). As Queensland Premier Anna Bligh recently observed,

> Engaging with the community online is a great way for me, as Premier, to get feedback on the decisions and actions of my government… Twitter in particular is a frank and spontaneous way for people to share their views and thoughts – it's not filtered or tempered by second thoughts, it's raw and immediate, and it's 24/7 (Bligh, cited in Canning 2009).

Yet as former senator Andrew Bartlett has argued, despite such fanfare there is still only

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[1] Australian National Centre for the Public Awareness of Science, ANU; will.grant@anu.edu.au
[2] Australian National Centre for the Public Awareness of Science, ANU
[3] Centre for Applied Psychology, University of Canberra

fairly limited genuine personal online interaction between politicians and the public. There is some – mostly lightweight – engagement from politicians through Twitter (which is none the less a desirable thing), but still not much genuine two way interaction (Barlett 2009).

This article seeks to add to our understanding of the current state of online engagement between politicians and the public by presenting quantitative analysis of the current utilisation of the social network tool Twitter by Australian politicians. In doing so we hope to gain a better understanding of whether modern social media does indeed offer the revolutionary possibilities its enthusiasts trumpet, or whether we sit in danger of an ever more fragmented public sphere; whether, as citizens, we can collectively reshape our world through social media dialogue, or whether this new landscape represents a dangerous and disempowering distraction.

Background

The social network tool Twitter is one of the more successful social media platforms of recent years. Alongside competitors Facebook, MySpace, Foursquare, Friendster and others, Twitter bills itself as an inherently conversational medium (its 'Sign up now' button was, at the time of writing, tagged with 'Join the conversation'), designed to allow people to 'Share and discover what's happening right now' (Twitter.com 2010). Users of the platform share their take on 'what's happening right now' through 140 character 'tweets': small passages long enough to include a website link and / or a sentence or two of commentary, but little else. Users can 'discover what's happening right now' by following the tweets of other users – meaning that as someone tweets, the other users who follow them will see that tweet in their personal Twitter feed, listed in reverse chronological order.

At the heart of Twitter is a modelling of human relationships that some have argued sets it apart from other successful social networks (Porter 2009), and perhaps makes it a space more open to possibilities for political interaction. In this, the default position of the service (and a setting the majority of users maintain – 79% of our random Australian sample described below) is for user tweets to be 'public': visible to all others (both users and non-users of the service) without any special privileges. In contrast, the default position of Facebook (for example) has been for user information (status updates, links or pictures) to remain private; visible only to those who have been granted access by that user. This has been labelled an 'asymmetric' modelling of human relationships (Porter 2009). That is, the default position of Facebook has long been that users can only see each others' profiles if each agrees to this – the two must be in a symmetrical relationship.

For Twitter users, there is no requirement for this symmetry, allowing a variety of different ways of using the tool. One user could, for example, follow the tweets of 50 other users, whilst be followed by (that is, have their tweets read by) 1 million others; another user could be the opposite, following 1 million people for 50 following them.

Aside from the commercial and user uptake impact of this difference, this asymmetrical setting suggests a radically different placing of the tool compared with more privacy focused social networks. Where Facebook is very much based on privacy (modelling in some senses the private, safe space of the lounge room), Twitter is very much based on being public: modelling the public spaces of the square and the bazaar (here we echo the metaphors of Raymond 1999).[4] As has been suggested, this makes Twitter a 'comparatively adult kind of interaction' compared with the more youth oriented Facebook (Miller 2009). It is this modelling that suggests very strongly its importance as a political tool.

Within this, a growing body of research has begun to emerge on the political impact of both social media more broadly, and Twitter in particular. Whilst enthusiasts have done much to trumpet the revolutionary nature of social media (see, for example, the barely bridled enthusiasm of the Us Now film project, at www.usnowfilm.com; discussion in Farrell 2009), others have found society to be changing much more slowly, and dangers in the changes that are occurring. Jim Macnamara, for example, has found politicians quite resistant to conversational social media: comments in their blogs are often turned off, and only 20 percent of politicians in his sample allowed direct e-mail contact (Macnamara 2008, 7). Showing this resistance further, in late 2007 the great bulk (81.9%) of Australian federal politicians' websites 'were completely one-way information dissemination with no opportunity for comment or input by members of the public' (Macnamara 2008, 8). Similarly, Rachel Gibson, Wainer Lusoli and Stephen Ward reported low levels of interaction on e-representation platforms in 2008 (2008, 128), while Ian Ward and James Cahill reported an overwhelming dereliction of social media – and blogging in particular – within the Australian political landscape in 2007 (2007, 11). Perhaps more worryingly, commentators and researchers have also pointed to the possibility of online engagement facilitating offline social disengagement (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay and Scherlis 1998), enhanced groupthink and possible 'cyberpolarisation' in online social networks (Sunstein 2007, 60;

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[4] It must at this stage be recognised that Twitter is not, of course, purely public – it is a space maintained and organised by private interests. However, it is not facetious to also point out that the spaces we suggest it mimics (the square and the bazaar) have always been at least partially maintained, organised or permitted by authorities. Just like the truly private, the truly public is somewhat of a myth.

Adamic and Glance 2005; Mayer-Schönberger 2009; Keane 2009b; Daniel, Flew and Spurgeon 2009; Flew 2008) and significant correlation between offline connections and exclusions (such as along socioeconomic or cultural lines) and their online counterparts (Hargittai 2007, boyd forthcoming).

Yet as worrisome as such cautions are, we should resist the reactionary voices of those who see only danger and dislocation in the online world. Indeed, these patterns are far from settled consensus. The Pew Internet and American Life Project's Social Isolation and New Technology Report (Pew 2009) has recently countered such worries with the suggestion that internet use in fact enhances the diversity and depth of local engagement. Gibson and McAllister have shown a significant relationship between online campaigning and candidate support (2006, 254), while Macnamara has argued that evidence of 'significant online political engagement' can be found in the 2008 US presidential election (2010, 228; Rainie & Smith 2008). What must be recognised is that social media – within the wider banner of so-called Web 2.0 technologies – does offer significant potential for the reform of the way we govern our societies. The moniker of Gov2.0 adopted by the Australian Government's 'Government 2.0 Taskforce' (see http://gov2.net.au) is perhaps more idealistic than realistic, but some real – and potentially dramatic – changes in representation, engagement, consultation and decision making have been flagged in this movement.[5] What this suggests most pressingly (echoing the call of Macnamara 2008; 2010) is that more research is urgently needed in order to describe and understand this space. Within this, we present here the first quantitative analysis of the current utilisation of the social network tool Twitter by Australian politicians.

Method

In conducting our analysis of the utilisation of Twitter by Australian politicians, we have sought to address three gaps in existing knowledge. Firstly, we have sought to address the fact that, at present, we simply do not know – in a systematic sense – what Australian politicians are doing on Twitter. We do not know who is tweeting, how often they tweet, and what they are tweeting. Secondly, we have sought to address the fact that we do not have a clear understanding of the benefit that politicians are gaining from the platform. It is clear that politicians are using the platform, and – as Anna Bligh's comment noted above suggests – are gaining some benefit. Yet it

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[5] Dunleavy, Margetts, Bastow and Tinkler's discussion of the wider issue of e-Government provides useful context to this movement (2008).

is not clear what these benefits are, if they accrue to all politicians equally, or if certain politicians – due to their tweeting behaviour, party, position or personality – get more out of tweeting than others. Accordingly, we have sought to clarify and quantify what these benefits are, to whom they accrue, and why. Finally, we have sought some address to the deeper question: what the uptake of social media – and Twitter in particular – means for Australian politics. Here we seek to answer the question that we suggest lies at the heart of all discussions of the political potential of new communication technologies: does this technology broaden – or restrict – the space available for political dialogue? Does Twitter offer us better ways to collectively shape our world, or is it instead a fragmentary, dangerous and disempowering distraction?

To address these issues, we first gathered a list of Australian politicians on Twitter. For the purposes of this study, our definition of Australian politician was more expansive than has been seen elsewhere (such as the lists of tweeting politicians maintained at tweetmp.org): including politicians from federal, state and local politics, either sitting in or declared to be candidates[6] for seats in upper or lower houses of parliament or councils. Politicians were included regardless of whether their tweet stream was updated by themselves or by staff working on their behalf, so long as it was recognised to be representative of that politician as an individual.[7]

To gather this list we followed a variety of methods: gathering Twitter links from known politicians' websites (kevinpm.com.au includes a link to Kevin Rudd's Twitter page); conducting 'advanced' Google searches for known politicians (such as 'Kate Lundy site:twitter.com'); and trawling for known politicians (or those identifying themselves as such) through the follower / following lists of politically engaged tweeters. As examples, Senator Kate Lundy (@KateLundy) is following Member of Hasluck Sharryn Jackson (@sharrynjackson); *Crikey*'s Bernard Keane (@BernardKeane) is following Member for Mitchell Alex Hawke (@AlexHawkeMP); ACT Young Labor Left (@younglaborleft) is following Member for Leichhardt Jim Turnour

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[6] Candidates were included if they flagged themselves on Twitter (or were flagged elsewhere) as such. Though this meant the inclusion of a number of unsuccessful candidates whose future political engagement remains uncertain (such as Marlee Bruinsma (@MarleeBruinsma), Greens candidate for Albert in the Queensland Election of March 2009), their explicit engagement with the political process and utilisation of Twitter is worthy of analysis. Some candidates (such as Kelly O'Dwyer (@KellyODwyer) and Paul Fletcher (@paulwfletcher)) were elected to parliament during our data collection period (both O'Dwyer and Fletcher were elected in by-elections on the 5th of December 2009), but this occurred after our cut-off date of 30th November 2009, and so were included in our list as candidates.

[7] A number of politicians (including Kevin Rudd, Bob Brown and Malcolm Turnbull) explicitly mark who is tweeting, either signing tweets when updated by themselves (Kevin Rudd signs as 'KRudd') or their staff ('#KevinPM Team').

(@JimTurnourMP). Obvious fakes (for example the fake Senator Stephen Conroy, @stephenconroy) were removed, while clarification was sought from those with possibly real but low information profiles (for example Member for Cairns Desley Boyle, (@DesleyBoyle)). This collection progressed to saturation point. Though extensive, this list (full details are provided in Appendix I[8]) cannot be treated as an exhaustive account of Australian politicians on Twitter when completed (30th November 2009). Collection was limited by the fact that it relied on the identifying characteristics of politicians (deliberately identifying themselves in Twitter biographies, showing 'standard politician images' in their photographs, providing links elsewhere to their Twitter profile) and human search techniques.

Following this, we then gathered a random sample of Australian Twitter users with whom we could compare the politicians. To do this we used the random number generator 'random()' from the program Processing (Processing.org 2010) to pick people at random between the Twitter identification number (a unique number generated by Twitter at signup) of the lowest and highest Twitter identification numbers of politicians, generating a sample of people signing up to Twitter in the same time period as our pool of Australian politicians. We filtered this random sample for those who self-identified in their Twitter biography or location as Australian or somewhere in Australia. It should be noted here that this procedure involved some oversampling, as a small percentage of this sample may have merely listed their location as Australia (or an Australian city or town) whilst in the country only temporarily. Obvious candidates here were removed from the sample. It must also be noted that, like the sample of Australian politicians, our sample was skewed from a truly representative appraisal of Australian behaviour in Twitter, in that it required a level of commitment (listing a biography or location) some degree above the actual norm for Twitter users.

Numerical and descriptive data (self-written Twitter biography, representative avatar, number of friends, number of followers) was collected for each of our examined Twitter users. Further descriptive data (electorate, party and year of birth) was collected for politicians where available. Each user's entire Twitter history was collected and archived with both text and time / date tweeted. In order to analyse a similar series of tweets, this was then edited to a ten month period between 1 May 2009 and 28 February 2010. Echoing the method of Leavitt and colleagues

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[8] A crowd-sourced collection echoing our list (available at http://ozpollietweeters.pbworks.com/) was found after analysis. Though it cannot be assumed that this list is currently (or will remain) definitive, it is likely that a collaborative wiki list like this will present the most useful resource in the long term.

(Leavitt, Burchard, Fisher and Gilbert 2009), we then categorised[9] each of the 118,122 tweets in the ten month sample as one of four basic types: 'broadcast', 'broadcast mention', 'reply' and 'retweet'. Here a 'broadcast' tweet is an isolated statement without reference to any other tweet or Twitter user (for example, Barry O'Farrell's 26 November 2009 tweet: 'In QT listening to Rees try & explain another 000 bungle – six months after the Coroner ordered changes following the death of a student'). A 'broadcast mention' is also an isolated statement, but one which mentions another Twitter user (for example, Kate Ellis' 27 October 2009 tweet mentioning users @miafreedman and @sarahmurdoch: 'Just received report on body image from @miafreedman and @sarahamurdoch and advisory group. It's at www.youth.gov.au - Govt to respond soon'). A 'reply' tweet is a reply to the tweet of another Twitter user, with that user listed at the start of the tweet (for example, Sarah Hanson-Young's 3 November 2009 tweet: '@BernardKeane I think that's a good decision. The whole thing creeps me out to be honest!'). Finally, a 'retweet' is the quoting and re-posting of another user's tweet in order to pass that tweet on, usually in the form 'RT @username text' (for example, Malcolm Turnbull's 13 May 2009 tweet: 'RT @JoeHockey: Check out my response to the Budget: http://tinyurl.com/qt7owa'). These were collectively treated as either 'broadcast' (broadcast + broadcast mention) or 'conversational' (reply + retweet).

Finally, tweets referencing politicians in the wider Twitter community (beyond our Australian sample) were also collected in order to assess the effect of different politicians in the Twitter landscape. These were collected by running searches using the Twitter search Application Programming Interface (API) on the strings '@username' (for example, @betsybookworm's 25 Jan 2010 retweet of Kevin Rudd: 'RT @KevinRuddPM: Where would the nation be if people stopped volunteering? Stuffed is the short answer. KRudd'). Though as wide a pool as possible was sought for this assessment, we were here limited by the capability of Twitter's search API, which during the period of this research only provided a limited ~10 day retrieval period. Accordingly, we downloaded this data repeatedly from 15 November to 28 February 2010, covering the final 115 days (5 November to 28 February 2010) of our sample period.

Results

Who is tweeting, how often they tweet, and what they are tweeting

The examined population comprised 152 Australian politicians and 477 random Australian Twitter users. Of these, 145 politicians and 377 Australian Twitter users had unprotected

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[9] Using a purpose built program in Processing version 1.0.9 (Processing.org 2010).

(public) accounts open to analysis.[10] Politicians were significantly less likely to protect their accounts than those in the random sample; 4.6% of politicians protected their accounts, compared with 21.0% of the random sample.[11] Politicians were also less likely to create an account and never use it (9.7% of politicians with unprotected accounts had never tweeted, compared with 26.0% of the general Australian sample).[12] Table 1 lists this breakdown.

Table 1 *Account usage*

	All	Excluding protected accounts	Protected	Unprotected, never tweeted
Politicians N	152	145	4.6%	9.7%
Australians N	477	377	21.0%	26.0%
Total N	629	522		

For the full 152 politicians, further descriptive data was collected on party, level of government (as either representative or candidate at 30th November 2009) and state of electorate; this data is presented in Table 2.

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[10] All subsequent analysis of tweets looks at unprotected accounts. However, as Twitter returns follower / following information for protected users, these users are included in analyses of follower / following behaviour.

[11] $\chi^2(1, N = 629) = 21.85, p < .001$.

[12] $\chi^2(1, N = 522) = 16.59, p < .001$.

Table 2 *Politicians*

	Variable	%(*N*)
Politician type[T]	Sitting	86.2% (131)
	Candidate	13.8% (21)
Level of Government[T] (representative or candidate for)	Federal	32.2% (49)
	State	50.7% (77)
	Local	17.1% (26)
State from[T]	ACT	5.3% (8)
	NSW	32.2% (49)
	NT	1.3% (2)
	QLD	19.1% (29)
	SA	9.9% (15)
	TAS	8.6% (13)
	VIC	15.1% (23)
	WA	8.6% (13)
Party[T]	ALP	32.9% (50)
	Coalition	42.9% (63)
	Greens	15.8% (24)
	Other	9.9% (15)

[U]   numbers and percentages from the unprotected pool

[T]   numbers and percentages from the total pool

Amongst both politicians and our random sample, Twitter behaviour – in terms of number and type of tweet, and number following and followers – showed a dramatically skewed distribution.[13] In the ten month period of collection for example, South Australian Premier Mike Rann (@PremierMikeRann) tweeted 1620 times (averaging just over five times per day), while a number of other politicians didn't tweet or tweeted only once. This was paralleled in the Australian sample, and in the following / follower counts for both groups. This skew can be seen in the large difference between means and medians in Table 3, and suggests that the median provides a more useful way of understanding the population.

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[13] This echoes findings in other discussions of politics in the Web 2.0 world. See discussion Farrell and Drezner (2007).

Table 3 *Twitter variables*

	Politicians		Australians	
	M	*Md*	*M*	*Md*
Following[T]	1543.27	51	94.23	16
Followers[T]	6633.63	137.5	82.77	8
Total tweets[U]	188.06	70	240.90	4
Broadcast tweets[U]	122.97	59	59.56	4
Broadcast mention tweets[U]	6.64	1	10.60	0
Broadcast total tweets[U]	129.61	66	70.16	4
Reply tweets[U]	33.21	2	33.62	0
Retweets[U]	4.54	0	4.05	0
Conversation total[U]	37.75	4	37.67	0

[U]   numbers and percentages from the unprotected pool

[T]   numbers and percentages from the total pool

The present data shows that Australian politicians are clearly engaging with Twitter, producing significantly more tweets than Australians in general.[14] Broken into component categories, they produce significantly more broadcast tweets,[15] as well as more conversational tweets (replies and retweets).[16] However, the difference between politicians and Australians more generally is mostly due to politicians producing more broadcast tweets: when tweets are grouped together as either broadcast or conversational (lumping the two broadcast categories as broadcast and reply and retweet as conversational), the difference between politicians and Australians can be clearly seen (see figure 1). Though politicians are noisier on Twitter in general, this noise is due more to broadcasting than engaging in dialogue.[17]

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[14] $t(304) = -7.32$, $p < .001$ (adj. *df* from 502)
[15] $t(283) = -8.46$, $p < .001$ (adj. *df* from 502)
[16] $t(520) = -2.24$, $p = .026$.
[17] Interaction between tweet type (broadcast vs. conversation) and participant category (politician vs non-politician) significant ($F(1, 520) = 96.75$, $p < .001$).
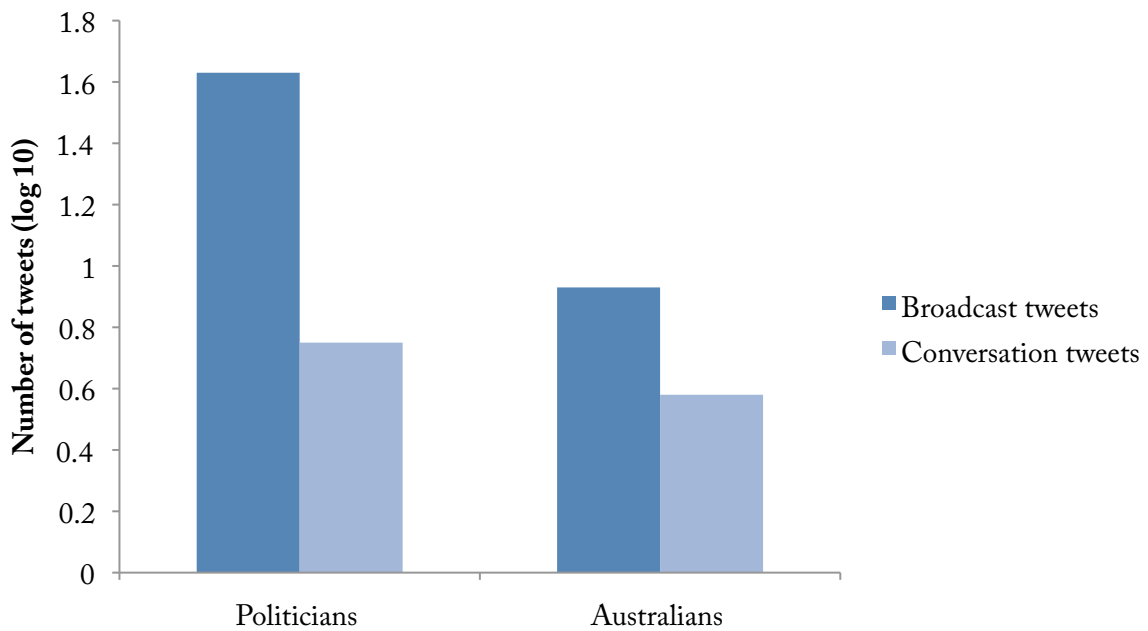
Figure 1 *Number of broadcast and conversation tweets made by Australian politicians and non-politicians.*

In a similar way (and as one might intuitively expect), politicians have more followers and follow more people than Australians in general.[18] Interestingly however, the pattern of following to follower numbers is reversed: Australians in general follow more than follow them; politicians have more people following them than they follow (see figure 2).[19] This suggests at least a partial difference in use between politicians and non-politicians: that non-politicians are more likely to use Twitter to listen to others, while politicians are more likely to use Twitter to send messages outwards.

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[18] $t(215) = -7.13$, $p < .001$ (adj. *df* from 627); $t(627) = -16.63$, $p < .001$ respectively.

[19] Interaction between relationship type (number following vs. number followers) and participant category (politician vs non-politician) significant ($F(1, 627) = 170.34$, $p < .001$).
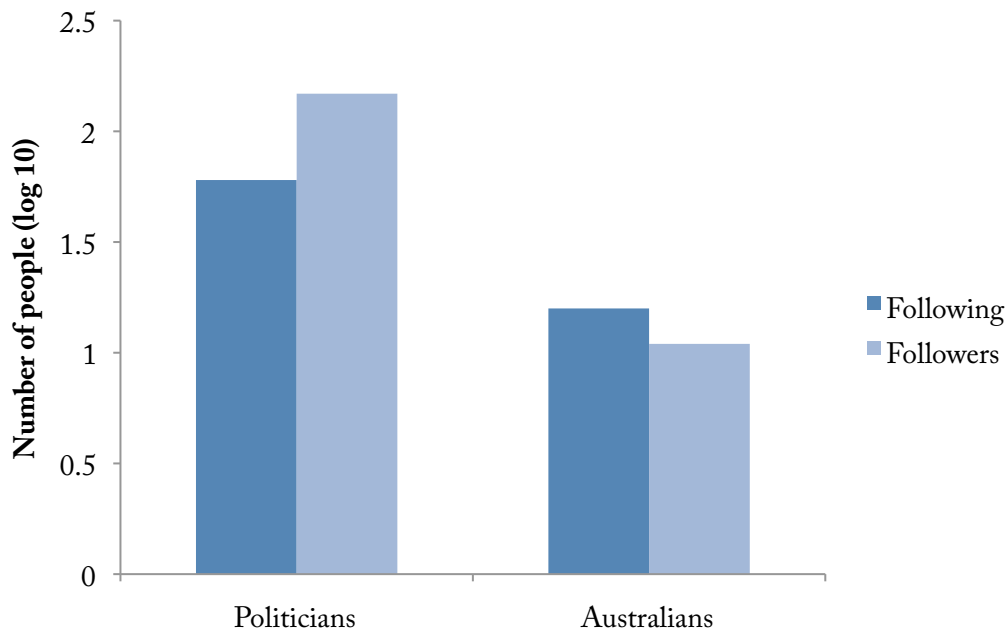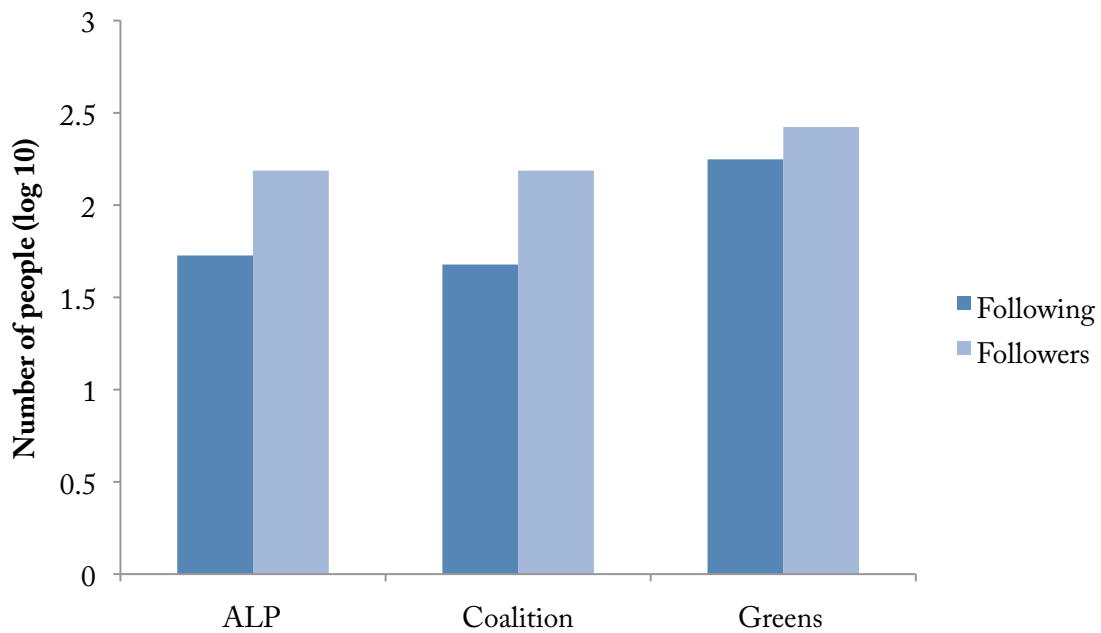
Figure 2 *Number of people following and followed by Australian politicians and Australians in general.*

 Some small differences were found across party lines. ALP and Coalition tweeters were largely indistinguishable in behaviour, yet Greens politicians were more likely produce retweets than the others.[20] However, many of these retweets appear to be of other Greens politicians (24.8% of their retweets, compared to 9.6% for the ALP and 13.3% for the Liberals), suggesting (at least partly) an effort to magnify their impact on Twitter rather than any clear difference in willingness to engage with non-politicians on Twitter. More significantly, Greens politicians follow more people than their ALP or Coalition counterparts.[21] Here Greens politicians follow a median of 224 people, compared with 23.5 for the ALP and 40.5 for the Coalition. The difference between following and follower numbers was smaller for Greens politicians than for either the ALP or the Coalition (see figure 3).[22] This may suggest an enhanced willingness to use the tool for dialogue, though it could also be merely a strategy for collecting more followers. It is also conceivable that Greens politicians represent a less professional cohort of politicians, somewhere between the politicians and non-politicians of figure 2.

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[20] Comparing Greens, ALP and Coalition ($F(2, 131)$ = 9.52, $p < .001$).
[21] Comparing Greens, ALP and Coalition ($F(2, 136)$ = 3.55, $p = .031$).
[22] Interaction between relationship type (number following vs. number followers) and political party (Greens vs. ALP vs. Coalition) significant ($F(2, 134)$ = 3.85, $p = .024$). Follow-up analyses: difference between number of followers and number following small for Greens than for ALP and Coalition.

Figure 3 *Number of people following and followed by politicians by party; (Greens N = 24, ALP N= 50, Coalition N=66).*

With respect to level of government, an expected pattern was found: no significant differences in behaviour (federal, state and local politicians all produce similar numbers of broadcast and conversation tweets, and show roughly similar patterns of both),[23] while federal politicians have more followers than state and local politicians[24] (see figure 4). No significant differences in tweeting behaviours were found between politicians in government or in opposition, though sitting members had more followers than candidates.[25]

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[23] $F_{(2, 144)} = 2.06$, $p = .131$; $F_{(2, 144)} = 2.42$, $p = .092$; $F_{(2, 142)} = 1.08$, $p = .340$.
[24] $F_{(2, 151)} = 10.02$, $p < .001$.
[25] $F_{(1, 143)} = 1.87$, $p = .173$; $t_{(150)} = 2.04$, $p = .044$.
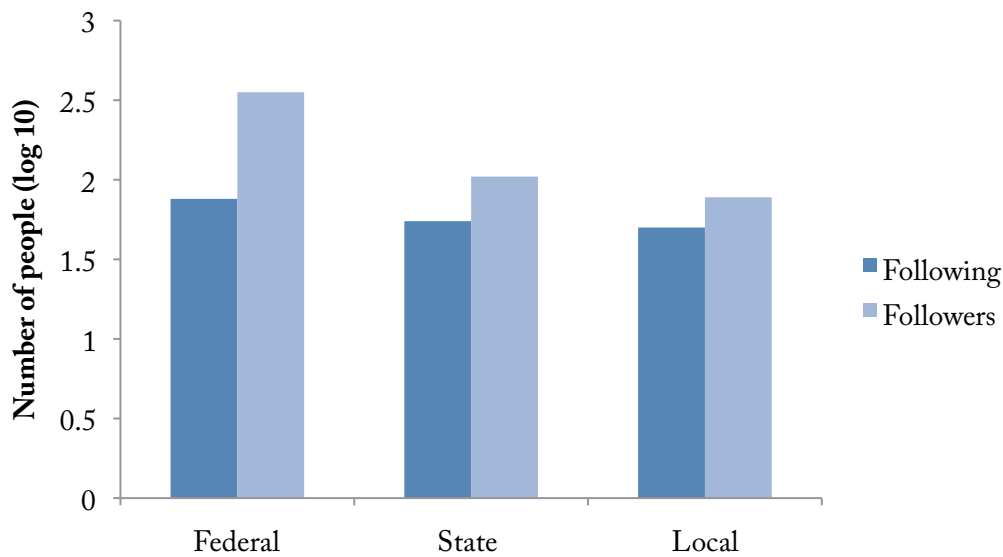
Figure 4 *Number of people following and followed by level of government; (Federal N = 49, State N = 77, Local N = 26)*

Year of birth data was found for 109 politicians, with a range stretching from Cairns Regional Councillor Kirsten Lesina (@KirstenLesina, born 1986) to Member for Throsby Joanna Gash (@JoGash, born 1944). To some extent confirming the arguments noted above (Miller 2009), no significant relationships were found between age and any other variable.[26] Though only a small sample from a very particular population, this partially refutes the common assumption (see for example Howell & Da Silva, 2010) that Twitter (and social media in general) is a young person's game. Similarly, no significant relationships were found between gender of politician and either tweeting behaviour or following / follower numbers.[27]

Before turning to the benefit politicians are gaining from Twitter, it is worth briefly describing the outliers to this population – those politicians and general users who are utilising the service in ways that sit significantly beyond the median. In terms of both followers and following, Kevin Rudd (@KevinRuddPM) sat (at the date of data collection) an order of magnitude removed from other users: followed by 918453 users, following 173825. Then opposition leader Malcolm Turnbull (@TurnbullMalcolm) was second, followed by 18720 users, following 17155; Joe Hockey (@JoeHockey) was third, followed by 8805 users, following 461. A comparison with specific other users in this would not be meaningful, but we can return to the median numbers

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[26] No bivariate correlations significant (statistical values available on request).
[27] No *t*-tests significant (statistical values available on request).

presented above; in our Australian sample, the median number followed was 16, the median number of followers was 8. In terms of number of tweets, Ipswich Councillor Paul Tully (@PaulTully – 2235 tweets), Mike Rann (@PremierMikeRann – 1620 tweets) and NSW Leader of the Opposition Barry O'Farrell (@barryofarrell – 1575 tweets) tweeted most prolifically in the 10 month data collection period. Of the 377 random Australian users for whom we collected data, ten were more prolific than any of these politicians, with the three most prolific producing 12278, 11680 and 6293 tweets respectively.

It is difficult to present a comprehensive and systematic summation of what politicians and Australians are tweeting about (our 10 month sample includes 27301 tweets from politicians and 90821 tweets from our Australian sample). However, a word cloud (a visualisation that gives greater prominence to words that appear more frequently in a source text) can provide an emblematic representation of topics discussed. Figures 5, 6, 7, 8 and 9 present word clouds of all politicians' tweets; all federal politicians'; all those of our Australian sample; and of Kevin Rudd's and Malcolm Turnbull's tweets respectively.[28]

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[28] Word clouds generated using *IBM Word Cloud Generator* Build 32 http://www.alphaworks.ibm.com/tech/wordcloud, stopping the words 'RT' 'via' 'ht' 'hattip' 'KRudd' 'KevinPM' 'Team' 'IPSWICH' 'GOODNA' 'BUNDAMBA' 'time' 'just' 'today' 'Time' 'Just' 'Today' 'REDBANK' 'Tomorrow' 'tomorrow' 'tonight' 'Tonight'.

Figure 5 *Word cloud of all politicians' tweets*

Figure 6 *Word cloud of federal politicians' tweets*

Figure 7 *Word cloud of all Australian sample's tweets*

Figure 8 *Word cloud of Kevin Rudd's tweets*

Figure 9 *Word cloud of Malcolm Turnbull's tweets*

Benefit

It is clear that Australian politicians are using Twitter, and it is also clear – as Anna Bligh's comment noted above attests – that they are gaining some benefit from the platform. However, we do not have a systematic understanding of who benefits, how they benefit, and why. Though we cannot provide an exhaustive account of the various potential and actual benefits that politicians may accrue from the use of Twitter, we now attempt to begin answering these questions by looking at two key aspects: politicians' influence on the community at large, and the benefit politicians gain through the possibilities for listening that Twitter offers.

Influence

A simple snapshot of influence on Twitter can be provided by assessing the extent to which politicians' tweets are read. Here we can assume that this is at least partly a function of the politician's follower numbers (remembering that Kevin Rudd was followed by 918453 users and Malcolm Turnbull by 18720 users at the date of data collection) and tweet rate. A multiplication of these two numbers would provide some representation of the 'noisiness' of the politician in the Twitter world at large, whilst a division of followers by tweets would provide some representation of their time effectiveness. On both these measures, Kevin Rudd's enormous follower numbers place him at least an order of magnitude ahead of other Australian politicians and those of our

random sample. However (as has been noted by Leavitt et al. 2009), this is a rather blunt instrument for telling us how politicians are benefiting from their use of Twitter. It certainly tells us of the overwhelming dominance of Kevin Rudd in the Australian political landscape on Twitter, but it doesn't tell us much about people's reaction to his use of Twitter, about how his behaviour on the platform might be contributing to such influence, or about how other politicians might be benefiting in different and more targeted ways.

Accordingly, a more useful measurement can be found in the rate at which politicians and their tweets are responded to throughout the Twitter landscape. To do this we can utilise the search data described above. This data – a collection of retweets of politician's tweets by other Twitter users between 5 November 2009 and 28 February 2010 – provides some confirmation of the fact that (some) politicians' tweets are indeed read, and a deeper understanding of which tweets in particular are striking a chord with the Australian public. In this it can be noted that the retweet also permits one of the key micro-political acts on Twitter: endorsing and passing on the arguments and statements of politicians to other users.[29] A particularly compelling example of this can be found in a tweet of Kevin Rudd's ('Where would the nation be if people stopped volunteering? Stuffed is the short answer. KRudd'), which was retweeted (either without comment or with endorsements ranging from 'True that' and 'Onya Kev!' to 'KRudd can be quite funny') at least 90 times in the days after he wrote it on the 24th of January 2010.

We can paint a simple picture of response by looking at the number of retweets of politicians' tweets. These are displayed in the Retweeted column in table 4. Again, Kevin Rudd sits dominant.

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[29] It should be noted here that this is not always the case – the retweet can be used to pass on views with which one disagrees, usually with some explanation / argumentation. An example can be seen in user @howespaul disendorsing Malcolm Turnbull's 13 November tweet by adding the word 'Nasty': 'Nasty RT @TurnbullMalcolm Restated today our commitment to strong border protection policy to stop the people smugglers http://bit.ly/4jlGKv.'

Table 4 *Most retweeted politicians*

Politician	Followers	Tweets	Mentioned	Retweeted*
Kevin Rudd	918453	140	7155	1713
Malcolm Turnbull	18720	73	1503	506
Mike Rann	8185	457	1303	412
Bob Brown	4413	33	544	394
Joe Hockey	8805	85	1033	374
Sarah Hanson-Young	1437	256	312	246
Kate Lundy	1970	221	509	225
Scott Ludlam	1451	94	360	217
Barry O'Farrell	1939	579	502	191
Lee Rhiannon	1056	128	217	159

* Tweets, Mentioned and Retweeted 5 November 2009 to 28 February 2010

More interestingly however, a regression analysis can help identify factors that make it more likely that a politician is retweeted. Accordingly, a regression analysis was conducted predicting the number of times a politician would be likely to be retweeted using a range of possible predictors, including number following, number of followers, number of broadcast tweets and number of conversational tweets. In this, the more followers a politician has (a factor, as noted above, connected with level of government) the more likely they are to be retweeted, which is logical – Kevin Rudd is clearly benefiting significantly from this. However, the behaviour of politicians also played a role. That is, politicians who themselves were more likely to engage in conversational tweeting were also more likely to be retweeted, whereas simply producing more broadcast tweets was not associated with being retweeted more.[30] If we can define success on Twitter as being retweeted by other users – having one's arguments and announcements passed on to others, perhaps with endorsement – then being more conversational is a key step in achieving this success.

Listening

Anna Bligh was explicit when describing the benefit that Twitter gave her: it was not just about the ability to broadcast messages to the Twitter users amongst her constituents, Twitter very much offered her a way to get 'frank and spontaneous' feedback on the policies and plans of her

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[30] Overall regression significant ($F(4, 144) = 1008.78$, $p < .001$, $R^2 = .76$), number of followers ($ß = .70$, $p < .001$) and number of conversation tweets ($ß = .35$, $p < .001$) significant individual predictors.

government (see Canning 2009). This echoes the argument of Martin Stewart-Weeks, who argued in the Government 2.0 Taskforce's blog that

> the whole point of social networking is not so much to send a message as to get one back. While it's always nice to tell the world what you think, if you do it on a social technology platform, you are inviting others to join the conversation. The whole idea is to listen, to talk, to debate, to agree and disagree, to create communities of influence and practice, to share (Stewart-Weeks 2009).

Though Bligh's statement is useful, it is difficult to exhaustively quantify the extent to which politicians are using Twitter to listen to the community more generally: put simply, one can very successfully listen to the Twitter community without leaving a recognisable trace.[31] Nevertheless, we can point to two proximate forms of data to at least partially assess the extent to which politicians are listening to the wider community; though these remain tentative here, they could be fruitfully pursued in further investigation.

Firstly, given that they imply the reading of other users' tweets, replies and retweets can be considered as a useful proxy for listening. As noted above, politicians are slightly more likely to engage in conversational tweeting than those in our general Australian sample, suggesting that they are indeed reading the tweets of others. This is, of course, a behaviour that varies significantly between politicians; the most conversational individual politicians on Twitter – and hence, perhaps, the politicians most likely to use Twitter to listen – are listed in table 5. Further, we can recall (as noted above) that the Greens were more likely to produce retweets than Twitter users in either the ALP or the Coalition. This suggests, perhaps, an enhanced willingness to listen to the community.

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[31] Though unquantifiable, we can find some evidence outside Twitter: Julia Gillard – who is not a Twitter user – has noted that she has read 2UE journalist Latika Bourke's tweets (see http://twitter.com/latikambourke/status/9604445032), while Kevin Rudd has noted on the floor of parliament reading David Speers' tweets (see http://www.youtube.com/watch?v=YvvIWUlzrHs).

Table 5 *Most conversational politicians*

Politician	Total tweets	Conversational tweets*
Barry O'Farrell	1575	950
Mike Rann	1620	502
Jane Lomax-Smith	1444	394
Greg Barber	750	379
Scott Morrison	955	347
Patrick Kelso	608	303
Nick Tyrrell	548	294
Mathias Cormann	529	228
Penny Sharpe	636	194
Alex Hawke	467	142

* Total tweets and conversational tweets 1 May 2009 to 28 February 2010

As noted above, more conversational politicians on Twitter do gain an advantage over others, being more likely to be retweeted in the wider community. However, further investigation of the benefits that these particular politicians gain – focusing particularly on whether they do indeed gain and appreciate the 'frank and spontaneous feedback' flagged by Bligh – could prove useful.

Secondly, we can also assess explicit markers in tweets that denote listening: tweets asking for feedback and tweets acknowledging assistance, support or advice. Perhaps the clearest example of a request for feedback can be seen in a November 27 2009 tweet of Joe Hockey's: 'Hey team re The ETS. Give me your views please on the policy and political debate. I really want your feedback.' Retweeted at least 66 times, it clearly shows a politician willing to listen to the community and a community appreciating that approach. Similar examples (drawn from search strings 'what do you think', 'your thoughts', 'your view', 'your feedback', 'any ideas') reveal a clear willingness amongst a number of politicians, at all levels of government, to ask the Twitter community for suggestions, perspectives or advice.[32] Interestingly, these appeared to be on an incredibly wide array of policy topics, from the precise ('What do you think of the gap at the Indooroopilly station?', 'What do you think about opening up Richmond RAF base for commercial traffic?') to the broad ('What do you think is the most important issue facing young people today?',

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[32] Given the great variety of ways in which a politician could ask for feedback or suggestions, we cannot attempt here to offer any quantitative summation of who is and who is not asking for such feedback. We can only say that further information on this would be a fruitful course for future investigation.

'What do you think the purpose of the written citizenship test should be?'); from the minute ('So the Mayor of Adelaide wants the city council to ban chewing gum from the city... What do you think?', 'Should smoking be banned in outdoor areas at pubs, clubs and hotels?', 'I want to hear your views on the symbol on the Tassie flag, should the lion stay?') to the profound ('Should we have a public debate about the use of Nuclear Power in Australia?', 'Should Aussie girls be in the SAS and Commandos?').

Similarly, it is possible to tentatively trace replies, retweets or broadcast-mention tweets that acknowledge assistance, support or advice. In this, some politicians appear particularly prone to acknowledge the suggestions or thoughts of their followers; searching for the words 'thanks' and 'thank you' in replies, retweets and broadcast-mention tweets showed Malcolm Turnbull and Mike Rann as perhaps the most gracious of political tweeters.[33] Many of their replies explicitly thanked other users for feedback, perhaps suggesting a willingness to value the suggestions and opinions of the Twitter community at large. Though the political value of this is unclear, further inquiry here – and, indeed, into the range of other benefits to which we have pointed – could prove interesting.

Discussion

With the data presented above we can turn to our final question: what the uptake of social media – and Twitter in particular – means for Australian politics. At the heart of this discussion is the key question that lies at the heart of all discussions of the political potential of new communication technologies: does this technology broaden – or restrict – the space available for political dialogue? Does Twitter offer us better ways to collectively shape our world, or is it instead a fragmentary, dangerous and disempowering distraction?

We cannot, of course, provide complete answers to these questions here. Yet we do hope that with the data presented above we can offer tentative beginnings that, with further research, will allow the construction of a detailed understanding of the changing landscape. There is much that needs examination in this realm; we hope that we can point to some of the questions that need to be answered.

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[33] Numbers are too tentative to report in text; to give a brief picture, the ten most likely to thank others in the community were Malcolm Turnbull (192 times between 1 May 2009 and 28 February 2010), Mike Rann (87), Penny Sharpe (24), Scott Morrison (18), Kathleen Maltzahn (18), Jane Lomax-Smith (16), Kate Ellis (16), Gary Humphries (16), Patrick Kelso (15) and Kate Lundy (15). It must be stressed that these numbers cannot be treated as exhaustive indicators of acknowledgement, only as a guide for further investigation.

We can break the present discussion of the meaning of Twitter for Australian politics into two components, aligned roughly with the effect of Twitter on individual politicians, and the effect of Twitter on the flow of ideas.

Politicians

Various scholars have advanced the argument that parliamentary democracies around the world are witnessing an increasing presidentialisation of parliamentary politics: a centralisation of decision-making authority and popular understanding of that power within the figure of the prime minister (see Mughan 2000; Poguntke 2000; Langer 2007). As part of this discussion, it is important to ask here if the political uptake of Twitter represents a continued centralisation of political discussion around dominant players, or a shift away from this trend to allow more space for other political actors. Do – as Farrell and Drezner (2007) ask of political blogs – the 'rich get richer' in the world of Twitter, or is there space for the 'poor' to 'strike it lucky'?

To address this, we can compare our search data partially discussed above (see table 4) with mentions of federal politicians in the traditional media as reported by Goot (2008, 102).[34] Though we must be tentative with this comparison (our Twitter sample covers a different time period with a different federal government, does not contain all Australian politicians who would be listed in the fifty most prominent in Australia in the period, and is not focused exclusively on federal politicians) two interesting points immediately leap out.

Firstly, there appears some skew towards the Prime Minister in medium dominance: where Goot reported that John Howard accounted for 26.4% to 30.8% of mentions of leading Australian politicians in the press, radio and television in the 2007 election campaign, Kevin Rudd appears to sit more central in Twitter, accounting for 40.7% of the mentions of politicians in our pool. This could, perhaps, suggest that Twitter reinforces – rather than weakens – any trend towards an increasing presidentialisation of Australian politics. However, a second point suggests a rather different trend. For Goot the major parties represented 56.9% to 63.6% (Coalition) and 34.3% to 41.8% (ALP) of mentions, with very little space for minor parties and independents (1.2% to 3.0%). Yet our sample suggests much more space for minor parties, and in particular the Greens. In our sample, the ALP garnered 59.5% of mentions, with the Coalition 28.6% – these appear

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[34] Goot reports on the relative number of mentions between 15 October and 21 November 2007 in the Press, Radio, Television and Internet for the 50 most prominent candidates in the 2007 federal election.

within a similar range, taking into account a change in federal government. However, in our sample the Greens accounted for 11.6% of mentions in the wider Twitter community, a distinct shift from the 1.2% to 3% of Goot. Certainly, there have been significant changes in the political fortunes and visibility of the Greens since the 2007 election. Yet this does suggest that Twitter also offers a space not available in the mainstream media for minor parties to connect with an audience.

It is also important to remember that this national view misses a key point: that Twitter users are able to tailor their reading to their own needs. In essence, users are able to develop a news service far more personalised than possible with any mainstream media diet. This can give more marginal politicians (such as those in minor parties and those in lower levels of government) the ability to connect with their community in ways not offered by traditional media. Where Posetti has talked of Twitter as in some senses paralleling talkback radio (see WAToday.com 2010), we can perhaps view it more as a highly tailored local paper, stretching directly from the very personal and local, through the niches of stakeholders and interested parties, to the national and global.

Ideas

We can return, at last, to one of our initial questions. Does modern social media – and Twitter in particular – offer the revolutionary possibilities its enthusiasts trumpet, or do we sit in danger of an ever more fragmented public sphere? As we move towards a more online world, are we in danger of enhanced groupthink and 'cyberpolarisation' (Sunstein 2007, 60)? We cannot, of course, answer these questions exhaustively. We do however believe that it is important to continue to ask if social media allows enhanced diffusion of good ideas and investigation (see Comitatus in Bridges 2010), or if it is more encircling than the deliberately mainstream media it is replacing.

The first thing we can say is that Twitter, like blogging more generally (Farrell and Drezner 2007), is a phenomenon ripe for social network analysis. Indeed, perhaps even more so than blogs (given that it requires significantly less effort than blogging) Twitter allows a deep understanding of who people are talking to, what they are reading and what they are passing on in the online world. This suggests very much that Twitter (and services of its type) will provide a ripe pool of data for social network analysts, sociologists and political scientists for some time to come; we can only offer tentative beginnings here. What can begin with, though, is the argument that amongst those inclined to use Twitter for political dialogue in Australia, current behaviour very much shows not the dangers of cyberpolarisation and groupthink, but the benefits of what have been

termed small world networks (Watts and Strogatz 1998). That is, though we cannot yet say what ideas are discussed in the Australian political use of Twitter – nor can we say how easily good ideas are received or bad ideas are critiqued – we can say that current connections echo Watts and Strogatz's 'small world networks'. Such small world networks are 'highly clustered, like regular lattices, yet have small characteristic path lengths, like random graphs' (Watts and Strogatz 1998, 440). Of particular relevance here, such networks allow the spread of information much more easily and quickly than either highly ordered or highly random counterparts (Watts and Strogatz highlight the rapidity of disease spread in small world networks (1998, 442)), whilst avoiding the epistemic closure of overly dense networks (Mayer-Schönberger 2009).

To assess this flow of ideas, we constructed a network based on instances of dialogue (that is, at least one tweet in each direction) involving one or more Australian politician. Clusters appear to exist in the present data – as figure 10 shows, based largely but not exclusively on party – yet these are connected via a relatively short average path length. Echoing Watts and Strogatz (1998), we can compare the actual clustering coefficient (C) and average path length (L) with an equivalent random graph of the same number of vertices (n) and edges per vertex (k). With n = 1179 vertices and k = 1.277 edges per vertex, a random graph[35] would show a highly sparse network of average path length L = 28.891 and clustering coefficient C = 0.001. In comparison, the present network (with the same number of vertices and edges) shows[36] L = 2.920, C = 0.085, clearly much more of a small world network. Further assessment of these coefficients against other politically relevant samples in Twitter would be of significant utility.

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[35] Where $C_{random} = k/n$ and $L_{random} = \ln(n)/\ln(k)$ (See Watts and Strogatz 1998, 440).
[36] Calculated using Gephi Graph Visualisation and Manipulation software version 0.7 alpha3 200912041610
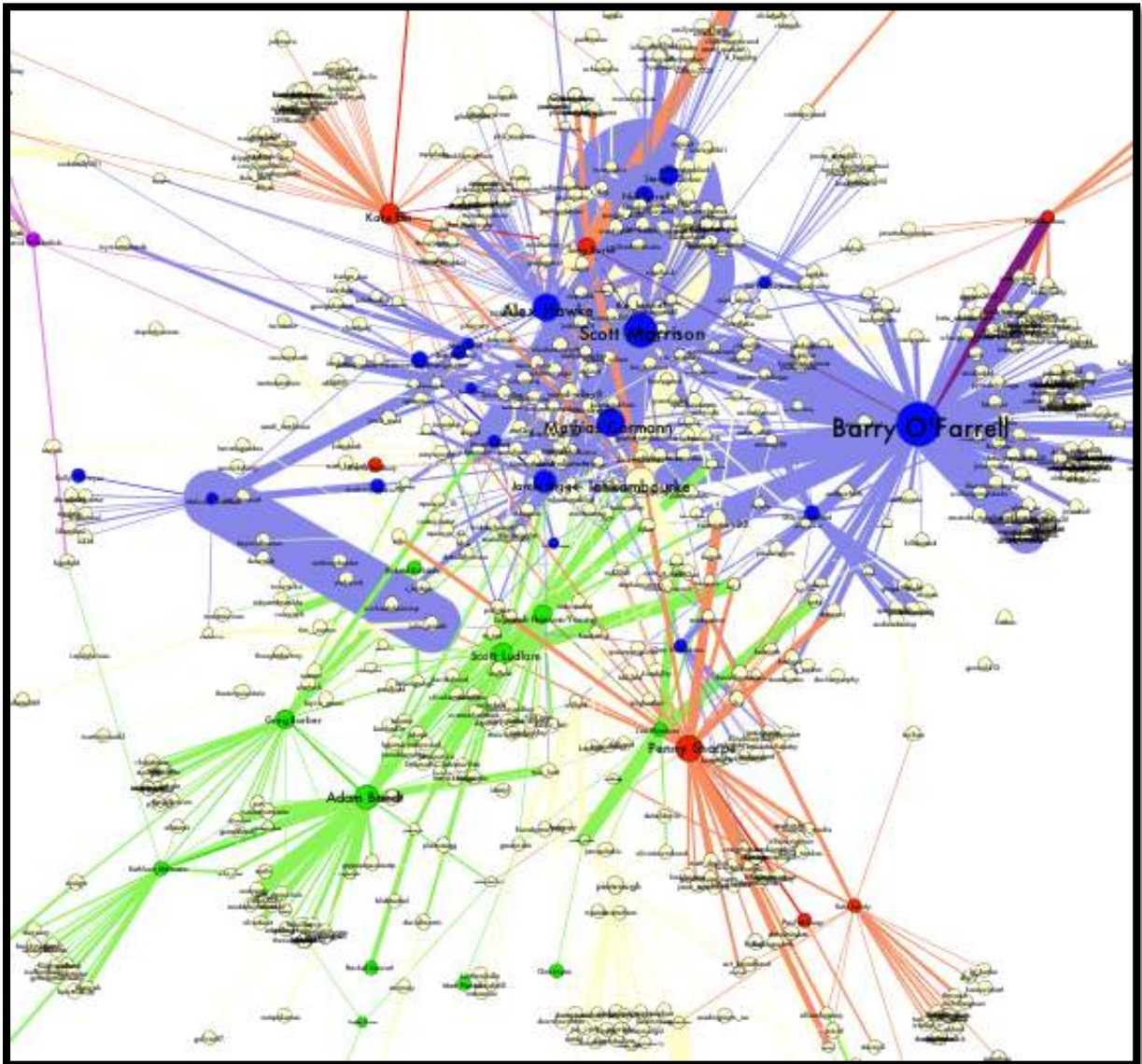
Figure 9 *Dialogue with Australian politicians in Twitter; minimum 1 tweet in each direction. Size of node indicates number of conversations total; width of edge indicates number of conversational tweets with that particular user. Red denotes ALP, green denotes Greens, blue denotes Coalition, yellow denotes non-politician. Image generated using Gephi version 0.7, using Yifan Hu's layout.*

What this data also suggests is that though Twitter clearly offers something of an unmediated connection with politicians (see Keane 2009a), other players sit as key parts of this network. Indeed, if we were to gather a different snapshot of the Australian political network on Twitter – such as one that explicitly looked to include journalists and other commentators – such players could sit even more important. Further assessment of these individuals would be of key benefit.

Concluding remarks

Twitter may, indeed, be used by only a small section of Australian society. Yet because of its very nature – because it rapidly connects the politically engaged – its influence extends far beyond this readership (here we echo Adamic and Glance 2005, 2). Put simply, Twitter is becoming, ever more, the political space in Australia in which ideas, issues and policies are first announced, discussed, debated and framed. Suggestions that the coming federal election will be a 'Twitter election' are not facetious. In essence, Twitter is providing a venue for Australia's leading politicians, journalists and politically engaged citizens to connect and shape the political discussion. This fact suggests ever more that political scientists should continue to be engaged in the investigation of its dynamics.

Appendix I: Australian Politicians on Twitter

Twitter ID	Name	Politician Type	Parliament / council	Party
AAntoniolli	Andrew Antoniolli	sitting	City of Ipswich	
AdamBandt	Adam Bandt	candidate	Federal	GRN
Adamgiles	Adam Giles	sitting	NT	CLP
Adelecarles	Adele Carles	candidate	WA	GRN
AdinaCirson	Adina Cirson	candidate	ACT	ALP
AlexDouglasMP	Alex Douglas	sitting	QLD	LNP
AlexHawkeMP	Alex Hawke	sitting	Federal	LIB
alistair_coe	Alistair Coe	sitting	ACT	LIB
AndrewBarrMLA	Andrew Barr	sitting	ACT	ALP
Anget	Angelo Tsirekas	sitting	City of Canada Bay Council	ALP
barryofarrell	Barry O'Farrell	sitting	NSW	LIB
BelindaNealMP	Belinda Neal	sitting	Federal	ALP
bennbanasik	Benn Banasik	sitting	Wollondilly Shire	
bernieripoll_mp	Bernie Ripoll	sitting	Federal	ALP
BesselingMP	Peter Besseling	sitting	NSW	IND
Birmo	Simon Birmingham	sitting	Federal	LIB
bobbaldwinmp	Bob Baldwin	sitting	Federal	LIB
BobStensholt	Bob Stensholt	sitting	VIC	ALP
BriggsJamie	Jamie Briggs	sitting	Federal	LIB
charlielynn_mlc	Charlie Lynn	sitting	NSW	LIB
chrisbourke	Chris Bourke	candidate	ACT	ALP
ChrisPearceMP	Chris Pearce	sitting	Federal	LIB
clrchris	Chris Harris	sitting	City of Sydney Council	GRN
clrirene	Irene Doutney	sitting	City of Sydney Council	GRN
CouncillorBosko	Anthony Boskovitz	sitting	Woollahra City Council	LIB
Cr_Rankin	James Rankin	sitting	City of Moonee Valley Council	ALP
craigingrammp	Craig Ingram	sitting	VIC	IND
CrTonyMulder	Tony Mulder	sitting	Clarence City Council	
danielhulmemp	Daniel Hulme	sitting	TAS	ALP
DavidBartlettMP	David Bartlett	sitting	TAS	ALP
DavidBradburyMP	David Bradbury	sitting	Federal	ALP
DavidPisoniMP	David Pisoni	sitting	SA	LIB
DavidWinderlich	David Winderlich	sitting	SA	DEM
DennisJensenMP	Dennis Jensen	sitting	Federal	LIB
DesleyBoyle	Desley Boyle	sitting	QLD	ALP
DrJaneLS	Jane Lomax-Smith	sitting	SA	ALP
fergusonmichael	Michael Ferguson	candidate	Federal	LIB
FionaSimpsonMP	Fiona Simpson	sitting	QLD	LNP
garyhumphries	Gary Humphries	sitting	Federal	LIB
GavinJennings	Gavin Jennings	sitting	VIC	ALP
GlennDocherty	Glenn Docherty	sitting	Playford City Council	
GregHuntMP	Greg Hunt	sitting	Federal	LIB
GregMLC	Greg Barber	sitting	VIC	GRN
GuyBarnett	Guy Barnett	sitting	Federal	LIB
HillsShireMayor	Larry Bolitho	sitting	The Hills Shire	
JacintaAllan	Jacinta Allan	sitting	VIC	ALP
jack4chaffey	Jack Papageorgiou	candidate	SA	FF

JasonClare	Jason Clare	sitting	Federal	ALP
jillianskinner	Jillian Skinner	sitting	NSW	LIB
JimTurnourMP	Jim Turnour	sitting	Federal	ALP
jjmcnamara	John McNamara	sitting	Wyong Shire Council	LIB
JoeHockey	Joe Hockey	sitting	Federal	LIB
JoGash	Joanna Gash	sitting	Federal	LIB
JohnHydeMLA	John Hyde	sitting	WA	ALP
JPLangbroek	John-Paul Langbroek	sitting	QLD	LNP
KarynPaluzzano	Karyn Paluzzano	sitting	NSW	ALP
KateEllisMP	Kate Ellis	sitting	Federal	ALP
KateLundy	Kate Lundy	sitting	Federal	ALP
keithmcilroy	Keith Mcilroy	candidate	Federal	GRN
KellyODwyer	Kelly O'Dwyer	candidate	Federal	LIB
KevinRuddPM	Kevin Rudd	sitting	Federal	ALP
KielSmith	Kiel Smith	sitting	Randwick City Council	LIB
KirstenLesina	Kirsten Lesina	sitting	Cairns Regional Council	
KKeneallyMP	Kristina Keneally	sitting	NSW	ALP
KPMaltzahn	Kathleen Maltzahn	candidate	VIC	GRN
LaneCoveMP	Anthony Roberts	sitting	NSW	LIB
LaraGiddings	Lara Giddings	sitting	TAS	ALP
leerhiannon	Lee Rhiannon	sitting	NSW	GRN
lisabakercom	Lisa Baker	sitting	WA	ALP
Louise_Pratt	Louise Pratt	sitting	Federal	ALP
LsinghMP	Lisa Singh	sitting	TAS	ALP
LukeDonnellan	Luke Donnellan	sitting	VIC	ALP
lynnmaclaren	Lynn Maclaren	sitting	WA	GRN
Mannoun	Ned Mannoun	sitting	Liverpool City Council	LIB
marieficarra	Marie Ficarra	sitting	NSW	LIB
MarkParnellMLC	Mark Parnell	sitting	SA	GRN
MarleeBruinsma	Marlee Bruinsma	candidate	QLD	GRN
MathiasCormann	Mathias Cormann	sitting	Federal	LIB
MatthewGuyMP	Matthew Guy	sitting	VIC	LIB
MatthewMasonCox	Matthew Mason-Cox	sitting	NSW	LIB
michaeljonsonmp	Michael Johnson	sitting	Federal	LIB
MichaelPengilly	Michael Pengilly	sitting	SA	LIB
MichaelWrightMP	Michael Wright	sitting	SA	ALP
mikebairdMP	Mike Baird	sitting	NSW	LIB
MikeHettinger	Mike Hettinger	candidate	ACT	ALP
MinisterPete	Peter Lawlor	sitting	QLD	ALP
mobrienmp	Michael O'Brien	sitting	VIC	LIB
NealeBurgess	Neal Burgess	sitting	VIC	LIB
nickberman	Nick Berman	sitting	Hornsby Shire Council	
nickmckimmp	Nick McKim	sitting	TAS	GRN
NickWakelingMP	Nick Wakeling	sitting	VIC	LIB
NicolaRoxon	Nicola Roxon	sitting	Federal	ALP
NigelScullion	Nigel Scullion	sitting	Federal	CLP
NoosaGreens	Stephen Haines	candidate	QLD	GRN
patrickkelso	Patrick Kelso	sitting	Ashfield Council	GRN
patrickseckermp	Patrick Secker	sitting	Federal	LIB
paulmcleay	Paul McLeay	sitting	NSW	ALP

PaulTully	Paul Tully	sitting	City of Ipswich	
paulwfletcher	Paul Fletcher	candidate	Federal	LIB
PennySharpemlc	Penny Sharpe	sitting	NSW	ALP
peter_dutton	Peter Dutton	sitting	Federal	LIB
philipmach	Philip Machanick	candidate	QLD	GRN
Premier_Bligh	Anna Bligh	sitting	QLD	ALP
PremierMikeRann	Mike Rann	sitting	SA	ALP
premierofnsw	Nathan Rees	sitting	NSW	ALP
RichardDiNatale	Richard DiNatale	candidate	Federal	GRN
RichardTowson	Richard Towson	candidate	QLD	LNP
RickColless	Rick Colless	sitting	NSW	NPA
Rob_Lucas	Rob Lucas	sitting	SA	LIB
robfurolo	Robert Furolo	sitting	NSW	ALP
RobJPyne	Robert Pyne	sitting	Cairns Regional Council	
Ronan_Lee	Ronan Lee	candidate	QLD	GRN
rosbates	Ros Bates	sitting	QLD	LNP
rossgrove	Ross Grove	sitting	Holroyd City Council	LIB
sarahinthesen8	Sarah Hanson-Young	sitting	Federal	GRN
scottbacon	Scott Bacon	candidate	TAS	ALP
scottemersonmp	Scott Emerson	sitting	QLD	LNP
scottlloyd	Scott Lloyd	sitting	Parramatta City Council	LIB
ScottMorrisonMP	Scott Morrison	sitting	Federal	LIB
senatorback	Chris Back	sitting	Federal	LIB
SenatorBobBrown	Bob Brown	sitting	Federal	GRN
SenatorLudlam	Scott Ludlam	sitting	Federal	GRN
senatormilne	Christine Milne	sitting	Federal	GRN
SenatorSiewert	Rachel Siewert	sitting	Federal	GRN
SenatorSueBoyce	Sue Boyce	sitting	Federal	LIB
sharrynjackson	Sharryn Jackson	sitting	Federal	ALP
ShayneMallard	Shayne Mallard	sitting	City of Sydney Council	LIB
SimonCorbell	Simon Corbell	sitting	ACT	ALP
simoncreanmp	Simon Crean	sitting	Federal	ALP
SimonIngram	Simon Ingram	candidate	QLD	LNP
SteDalton	Stephen Dalton	candidate	QLD	GRN
steveciobo	Steven Ciobo	sitting	Federal	LIB
SteveIronsMP	Steve Irons	sitting	Federal	LIB
SteveKilburn	Steve Kilburn	sitting	QLD	ALP
stevensongeoff	Geoff Stevenson	sitting	Randwick City Council	ALP
SteveWhan	Steve Whan	sitting	NSW	ALP
stuartrobertmp	Stuart Robert	sitting	Federal	LIB
sueMLC	Sue Pennicuik	sitting	VIC	GRN
SutherlandMP	Michael Sutherland	sitting	WA	LIB
TanyaPlibersek	Tanya Plibersek	sitting	Federal	ALP
Tony_Burke	Tony Burke	sitting	Federal	ALP
TonyKellyMLC	Tony Kelly	sitting	NSW	ALP
TonySmithMP	Tony Smith	sitting	Federal	LIB
TurnbullMalcolm	Malcolm Turnbull	sitting	Federal	LIB
tyrrellnick	Nick Tyrrell	sitting	Blacktown City Council	LIB
vicpremier	John Brumby	sitting	VIC	ALP
VictorDominello	Victor Dominello	sitting	NSW	LIB

VictoriaNewton	Victoria Newton	sitting	Brisbane City Council	ALP
victorperton	Victor Perton	sitting	VIC	LIB
Wardlaw_Jane	Jane Wardlaw	candidate	Launceston City Council	
WillHodgman	Will Hodgman	sitting	Tas	LIB
ZayaToma	Zaya Toma	sitting	Fairfield City Council	LIB

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