ROBERT GORDON UNIVERSITY ABERDEEN

ABERDEEN BUSINESS SCHOOL WORKING PAPER SERIES

TITLE: Backchannel chat: Peaks and troughs in a Twitter response to three televised debates during the Scottish Independence Referendum campaign 2014

AUTHORS: Sarah Pedersen, Graeme Baxter and Simon Burnett, Ayse Goker, David Corney and Carlos Martin

DATE: November 2014

ISSUE NO.: Volume 7 Issue 2

ISSN: 1753-6766 (Print)

ISSN: 1753-6774 (Online)

Backchannel chat: Peaks and troughs in a Twitter response to three televised debates during the Scottish Independence Referendum campaign 2014

Sarah Pedersen, Graeme Baxter, Simon Burnett

The Institute for Management, Governance and Society (IMaGeS)

Aberdeen Business School

Robert Gordon University

Garthdee Road

Aberdeen AB10 7QE

Email: s.pedersen@rgu.ac.uk

Ayse Goker, David Corney and Carlos Martin[1]

Institute for Innovation Design & Sustainability (IDEAS)

Abstract

Social-networking services such as Twitter offer users the potential to participate in public debate. When used whilst watching a television programme, Twitter allows backchannel discussion and debate in real time, which can add a new dimension and pleasure to television watching. When used in conjunction with televised political debates, Twitter can enable audiences to participate in and respond to the debate, stepping into the public sphere whilst still seated on their sofas. This paper identifies the peaks and troughs in Twitter usage during three televised Scottish Referendum debates in autumn 2014 and identifies the topics

[1] The authors wish to acknowledge the assistance of Casandra Lopez Marcos to the project. The software development, tweet collection and graph plotting described in this paper was partially funded by the European Union as part of the Social Sensor consortium FP7 research grant 287975.

that were the foci of such peaks and troughs. We argue that the issues that caught the most attention from the Twitter sample changed from debate to debate, suggesting that viewers were keen to debate the question of Independence from all sides of the question. We also suggest that the sample responded most strongly to 'moments of political theatre' rather than thoughtful debate and that they chose to wait until breaks in the programme, such as advertisement breaks, vox pops and spin-room discussion, to tweet. While this paper is mostly a quantitative study, the final section offers an introduction to some of the qualitative analysis of the collected data currently being undertaken by the team.

Keywords: Twitter, Referendum, Scotland, backchannel, audience, televised debates.

Introduction

Social-networking sites such as Twitter offer their users the potential to participate in public debate. Unlike television broadcasting or newspaper opinion columns, such social media have low barriers to entry and offer the potential for collective involvement (Anstead and O'Loughlin 2011). In recent years television programmes have become popular topics for Twitter discussions, often featuring in Twitter's trending topics lists. Twitter allows the conversations about television programmes that viewers have with those sitting in the same room to extend into cyberspace, allowing them to exchange opinions about plot and characters in a more public sphere. Unlike the original 'watercooler' conversation, where viewers had to wait until the next day at work to share their opinions about television programmes with others outside their close family circle, Twitter allows backchannel discussion and debate in real time while the programme is still happening. This can add a new dimension and pleasure to television watching (Harrington *et al* 2013).

Television producers have started to encourage this debate by establishing Twitter accounts for programmes and advertising hashtags related to the television programme at its start (for example #bbcstrictly for *Strictly Come Dancing*). Indeed, Twitter can even become part of the programme itself, incorporating viewer feedback and questions. Involving viewers in a programme through Twitter discussion can encourage real-time viewing rather than the use of time-shift technology because only real-time viewing can guarantee that a Twitter community will be watching the programme at the same time as you, which is also a positive result for advertisers (Harrington *et al* 2013). The same is also true of television programmes relating to political debate or events, whether these are series such as the BBC's *Question Time* (which uses the

Twitter account @bbcquestiontime) or one-off programmes such as televised political debates relating to elections or referenda. During such televised debates social media allows people to react in real time to events on screen and to debate political issues outside their immediate circle. Thus television watching is turned into a communal, social event and social media becomes a site of rapid response to the events and arguments onscreen. Social media therefore allows viewers to interact and engage with events onscreen, offering opportunities for public comment, debate and interpretation. Houston *et al* (2013) suggest that, in fact, live-tweeting during a televised debate can enhance engagement with the debate content and may impact on the evaluation of the candidate. They found that tweeting during the Presidential debates in the US in 2012 was actually related to participants reporting more favourable attitudes to Barack Obama. Anstead and O'Loughlin have coined the term 'viewertariat' (2011) for this phenomenon, where viewers become more active and engaged through such media hybridity. It also allows campaigners to judge how well particular arguments and speakers were received and can be used strategically during the event by activists.

Twitter and Political Engagement

Twitter is a micro-blogging service launched in 2006 that allows users to post messages (known as tweets) of up to 140 characters in length. In September 2013 the outgoing CEO of Twitter announced that there were 15m Twitter users in the UK, up from 10m in May 2012 (Curtis 2013). It should be noted, however, that Twitter also states that 40% of its users prefer only to read rather than send out tweets themselves, thus demonstrating a large body of 'lurkers', who do not participate in Twitter online but do read it (Holt 2013).

Twitter messages can be aimed directly at another Twitter user through the use of the @ symbol, can be retweets of the tweets of other users or can be aimed at a more general audience through the use of hashtags #. Thus Twitter can be used to conduct conversations or broadcast to individuals, groups or the general Twittersphere. Since its inception Twitter has been an important forum for political debate between its users, although, as Mascaro and Goggins (2012) point out, academic analyses of such debate have tended to focus on issues, citizen debates and elections (for example see Bruns and Burgess 2011 discussion of election-related Twitter messages during the Australian Federal election of 2010 or Elmer 2013 on a televised debate during the 2008 Canadian federal election). In particular, Twitter makes an excellent tool for examining immediate audience response to televised debates on political issues and between politicians. Before social media, researchers investigating audience response to such debates were limited to focus groups and audience surveys – methods that have limited generalizability and were usually not undertaken in real time. Analysis of Twitter data enables researchers to increase the size of the data collected, to collect real-time responses, and also does not require researcher intervention or interaction with participants.

Thus there is a growing body of research analysing audience response to political televised debates through the use of Twitter. While much of this research has focused on American presidential elections (for example Diakopoulos and Shamma, 2010; Mascaro and Goggins, 2012; Houston et al, 2013; Freelon and Karpf, 2014; Schifferes *et al*, 2014), research has also been conducted into the response on Twitter during Norwegian elections in 2011 (Kalnes et al 2014) and, in a wider study, all three Scandinavian general elections in 2010 and 2011 (Moe and Larsson 2013). In the UK, Newman (2010) analysed over 1,000 tweets sent

during the last of three televised debates involving the three main party leaders in the 2010 general election campaign; while Ipsos MORI (2011) observed that peaks in Twitter traffic during the 2011 Scottish Parliamentary election campaign generally coincided with key events, such as manifesto launches and TV debates. In addition, research has been carried out into other televised moments of political importance, such as President Obama's inauguration (Shamma et al 2010).

Aim of the research

The overarching aim of this research was to develop an understanding of how Twitter is used as a vehicle for communication during televised political engagements.

In order to achieve this aim, the following objectives were identified:

- To identify three televised referendum debates to be used as the focus for the analysis of Twitter usage
- To identify the peaks and troughs in Twitter usage during the course of these three referendum debates
- To specify the topics that were the focus of the peaks and troughs using content analysis

The research presented in this paper forms part of a larger programme of research examining a range of issues associated with the use of social media in relation to political engagement currently being conducted by the IMaGeS and IDEAS research institutes at Robert Gordon University.

The Scottish context

The most northerly country within the United Kingdom, Scotland is politically represented in the UK Parliament, as well as having limited self-government through the Scottish Parliament in Edinburgh. The Scottish Government itself was established in 1999, following the Scotland Act 1998 (Smith and Gray, 1999).

The issue of Scottish independence can be traced back to the 1850s and the National Association for the Vindication of Scottish Rights, which initially took up the 'home rule' movement to campaign for a Scottish Assembly (Devine, 2006). In more recent years, the first referendum for Scottish independence was held in 1979. Despite being a narrow win in favour of devolution (52% to 48%), devolution did not happen because it was conditional on 40% of the electorate voting in favour of devolution. Only 32.9% of the electorate voted in favour of devolution. A second devolution referendum was held in September 1997, with 44.9% of the electorate voting in favour of the devolution plan. This resulted in the approval of the Scotland Act 1998, which in turn created the Scottish Parliament (Keating, 2009). The most recent Scottish referendum was held on 18 September 2014 following the passing of the Scottish Independence Referendum Bill in November 2013, subsequently enacted as the Scottish Independence Referendum Act 2013. This time, the electorate were asked a single yes/no question: 'Should Scotland be an independent country?' 55.3% of the electorate voted against independence, with an overall turnout of 84.6% of the eligible population (Scottish Parliament, 2014).

The televised debates

Tweets sent during three televised debates on the question of Scottish Independence on 5 August, 25 August and 2 September 2014 were collected and analysed.

Debate 1 (5 August 2014) was held in front of a live audience of 350 people at Glasgow's Royal Conservatoire of Scotland and was between Alex Salmond, First Minister and leader of the Scottish National Party (SNP) and leader of the Yes campaign, and Alistair Darling MP[2] (Labour), leader of the Better Together campaign. The debate was televised between 8.00 pm and 10.00 pm on the commercial television channel STV. The debate was only shown in Scotland, although STV offered the possibility of watching the programme in real time via the online STV player to interested parties in the rest of the UK and beyond. The debate had an average audience of 765,000 viewers with a peak of 920,000 (*The Guardian*, 6 August 2014). In addition, half a million viewers attempted to watch the debate online, although many complained that they had problems as the STV player struggled to cope with demand. Interestingly, some of these frustrated viewers then turned to Twitter to try to follow the debate through social media.

Debate 2 was broadcast on BBC Scotland on the evening of 25 August 2014 between 8.30 pm and 10.00 pm (BBC Scotland is a non-commercial channel and therefore the programme did not include advertising breaks, which meant that all debates were actually of the same length). The debate was again between Alistair Darling and Alex Salmond and came from the Kelvingrove Art Gallery in Glasgow in front of a studio audience of 200 people. Viewers in the rest of the UK were able to watch the debate on BBC 2. The BBC Scotland programme

[2] MP – Member of the (UK) Parliament; MSP – Member of the Scottish Parliament.

attracted 843,000 viewers, a 37% share of the television audience in Scotland, while the BBC 2 broadcast attracted 1.7 million viewers, overall a 6.8% share of the UK television audience (*The Guardian*, 26 August 2014). The programme was also simulcast on the Sky News and BBC News channels.

Debate 3 took place in Edinburgh on 2 September 2014 on STV between 8.00 pm and 10.00 pm. The programme was simulcast on itvnews.com, as well as the STV website, and then repeated at 10.35 pm on STV's network partner ITV for the rest of the UK. This debate was slightly different in format, with two teams of three debating and more input from a television audience. It was described as a 'town hall debate' by STV. The teams were: Nicola Sturgeon MSP (SNP), Patrick Harvie MSP (Co-convenor of the Scottish Green party) and Elaine C. Smith, actor and political activist, for the Yes side, and Douglas Alexander MP (Labour), Ruth Davidson MSP (leader of the Scottish Conservative party) and Kezia Dugdale MSP (Scottish Labour) for Better Together. Both STV debates were moderated by STV's political editor Bernard Ponsonby while the BBC debate was moderated by political journalist and broadcaster Glenn Campbell.

Televised debates between representatives of the two sides occurred with some frequency during the Referendum campaign. For example, the STV current affairs programme *Scotland Tonight* ran a series of special programmes featuring debates between Nicola Sturgeon, whose Scottish Government role was to oversee the Referendum, and members of the Better Together campaign: Michael Moore (16 May 2013); Anas Sarwar (5 September 2013); Alistair Carmichael (27 November 2013) and Johann Lamont (25 February 2014). BBC Scotland also broadcast a series of round-table debates from January 2014 onwards and, on 11 September 2014, organised what it called the 'Big Big Debate' for 7000 school pupils aged 16 and 17 (who for the first time had a vote

in the Referendum) at Glasgow's SSE Hydro. However, this debate was not live and was edited before transmission. While the Yes campaign repeatedly called for a debate between the UK Prime Minister David Cameron and Alex Salmond, this was not forthcoming – Cameron stating that the Referendum was for Scots to decide. The three debates discussed in this paper were therefore selected because of their timing – very close to the Referendum itself; their live broadcast with no editing; and the stature of those who took part – either the leaders of the campaigns or (in the case of the round table) the Minister in charge of the Referendum plus the leaders of the Scottish Greens and the Scottish Conservatives and three other key activists in the campaign from all sides of the debate.

The sample

Using software developed by a team led by Göker (as part of a European Union's Seventh Framework Programme project: SocialSensor), a purposive sample of tweets was collected during the initial broadcast of each of the three debates. The sample was taken from 300 Twitter accounts, which were selected because of their owner's evident interest in Scottish politics and the Referendum. These accounts were primarily sourced from extant lists on Twitter. The accounts included Scottish politicians, journalists, bloggers and other commentators. Every tweet sent by these accounts and every tweet that mentioned them were collected. In addition, every tweet sent containing the hashtag #indyref and every tweet geo-tagged as being sent from Scotland (only around 5% of all tweets are geo-tagged) were collected. From the resulting stream of tweets a standard filter was then used to remove tweets containing a large number of URLs because past experience has shown that these are likely to be spam. The

number of tweets sent every minute during the debates was then counted in order to identify peaks and troughs in the Twitter conversation in the sample. During Debate 1, a total of 54,811 tweets were collected, with an average of 456.8 tweets per minute. During Debate 2, 64,041 tweets were collected, with an average of 711.6 tweets per minute (over 90 minutes) and during Debate 3, 31,715 tweets were collected with an average of 264.3 tweets per minute over two hours. At the peak of Debate 2 (broadcast UK-wide), over 1300 tweets were collected in one minute.

Whilst boyd *et al* (2010)[3] suggest very limited use of hashtags by Twitter users so that hashtagged content makes up only a small subset of discussion online, we would suggest that there has been some change in Twitter since their research, particularly in relation to political debates. In addition, the promotion of the neutral hashtags #indyref, #scotlanddecides and #bbcindyref before and during the television programmes encouraged tweeters to make use of these hashtags. In this we are following previous researchers' use of hashtags (for example see Bruns and Burgess, 2011; Mascaro and Goggins, 2012). In addition, the two campaigns, Better Together and Yes Scotland, encouraged their users to use these hashtags, with Yes Scotland sending out instructions to their supporters before the debates to retweet the campaign's tweets during the debate using the neutral hashtag. Research in Australia and Norway suggests that political Twitter use peaks during televised debates and the use of political hashtags increases beyond the hard core of political Twitter users (Bruns and Burgess, 2011; Kalsnes *et al* 2014). It is thus not surprising to see the campaigns encouraging their users to include neutral hashtags when tweeting

[3] Like bell hooks and e e cummings, danah boyd chooses not to use capitalisation in her name.

during the debates, thus accessing voters outside their own committed supporters.

Three members of the team independently watched the debates, noting the topics discussed minute by minute. Comparisons were also made with other media outlets that blogged the debates in real time, such as the online site of *The Guardian* newspaper, in order to agree the timing of the topics under discussion.

Peaks and troughs

The peaks and troughs of Twitter engagement amongst the project sample during the three debates were then analysed. Peaks were defined as the points in time where Twitter activity was at its highest during the debate, and troughs as the lowest points. In this we drew on the work of Elmer (2013), whose research into Twitter discussion during a political debate on the Canadian Broadcasting Corporation during the 2008 Canadian federal election also produced charts that showed minute-by-minute activity in the Twittersphere and identified the onscreen moments that stimulated spikes in Twitter discussion. For each debate an overall continuous rise in the number of tweets was discerned, demonstrating that the sample became more engaged in tweeting about the debates as time went on. This finding agreed with Kalnes *et al*'s 2014 study of televised election debates in Norway. However, it was also possible to identify a number of peaks and troughs in the sample's tweets – moments where tweeters became more or less engaged in the discussion on Twitter. The subjects under discussion at these points in the debate were noted.

In Debate 1, the discussion of the currency Scotland would use in the event of independence and Alex Salmond's description of the No campaign as 'Project

Fear' stimulated the most tweets, while later discussion of pensions and a report by the Institute of Fiscal Studies led to less discussion on Twitter. Both the opening and closing remarks of the debate also saw peaks in Twitter discussion. The peaks and troughs in Debate 1 are given in Figure 1.

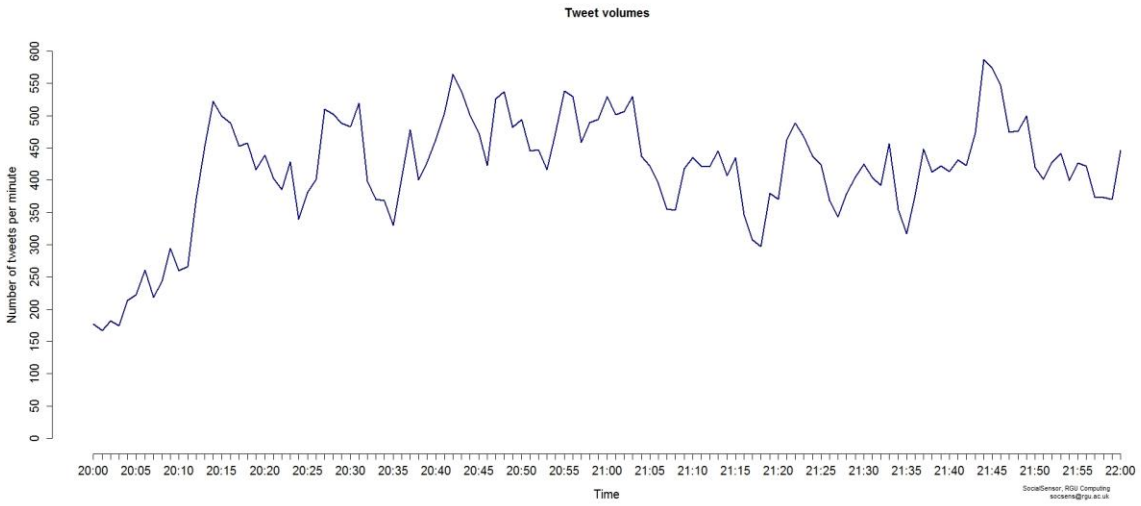

Figure 1: Peaks and troughs in Twitter discussion Debate 1, 5 August 2014

Overall, in Debate 1, the team identified seven clear peaks and five troughs in the sample's Twitter discussion. The first peak came after 12 minutes, during Alex Salmond's opening statement. Salmond had won the toss and elected to speak first. There was no similar peak for Alistair Darling's opening statement. The next peak instead came at 42 minutes into the debate when Alistair Darling pushed Alex Salmond hard on the question of a 'plan B' should currency union between Scotland and the rest of the UK (rUK) not be possible. This peak was rapidly followed by two further peaks – at 47 and 55 minutes – when Alex Salmond questioned Alistair Darling about what he termed 'Project Fear' – the negative approach to campaigning from Better Together – and then pressed Darling to specify the extra powers that would be offered to Scotland in the event of a No vote and asked whether he agreed with David Cameron that

Scotland could succeed as an independent country. A further two peaks came at one hour and one hour, three minutes, with a 'spin room' discussion where the camera moved away from the two key debaters to hear how political commentators felt they were doing and then questions from the audience on the subject of 'Plan B'. The final peak came at the end of the debate after the closing statements.

As far as troughs were concerned, the first came at 34 minutes when Alistair Darling started to question Alex Salmond on 'Plan B', and the second at one hour and seven minutes, when the moderator Bernard Ponsonby pushed Salmond on this subject again, suggesting that he was disrespecting the nation by refusing to answer. The third trough came at one hour and 18 minutes when Alex Salmond discussed a report from the Institute of Fiscal Studies, and the final two at one hour and 27 minutes and one hour and 36 minutes when there was discussion of pensions. Table 1 below shows these peaks and troughs and the number of tweets collected from the sample during those minutes. It should be noted that peaks and troughs are relative to the continuous Twitter conversation and therefore it is possible that later 'peaks' can have fewer tweets than later 'troughs' and vice versa.

Time	**Moment of the debate**	**Number of tweets from sample**	**Peak or trough**
20.12	Opening statement by Alex Salmond	311	Peak
20.34	Introduction of Plan B discourse by Darling	366	Trough
20.42	Darling pushes Salmond on Plan B	540	Peak
20.47	Salmond questions Darling on 'Project Fear'	465	Peak
20.55	Salmond questions Darling about extra	501	Peak

	powers		
21.00	Spin Room discussion	542	Peak
21.03	Audience questions about Plan B	541	Peak
21.07	Ponsonby questions Salmond about Plan B	323	Trough
21.18	Salmond discusses Institute of Fiscal Studies report	282	Trough
21.27	General discussion about pensions	375	Trough
21.36	Questions from the audience about pensions	359	Trough
21.43	After closing statements	442	Peak

Table 1: Subjects under discussion during identified peaks and troughs in Debate 1

Debate 2, again between Alex Salmond and Alistair Darling, took place on BBC Scotland at 8.30 pm on 25 August. The format was very similar to the first debate but there were no advertising breaks and no spin room. The overall plot of the sample's tweets for this debate is given in Figure 2.

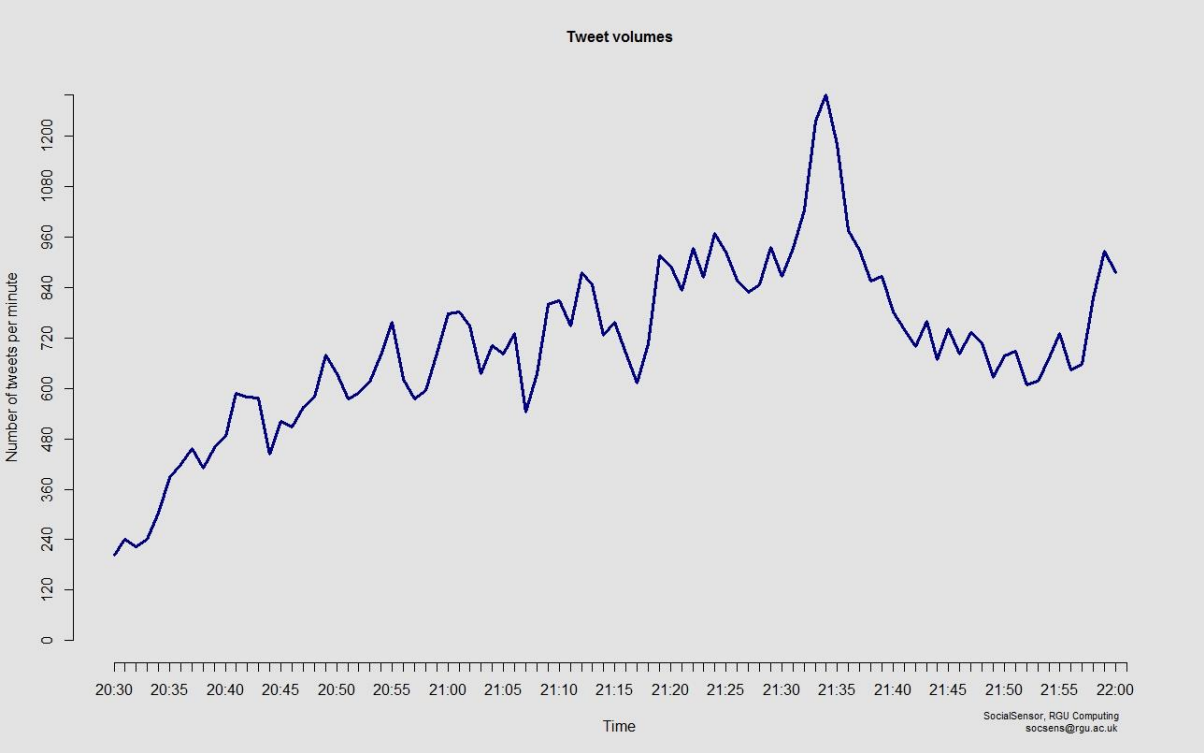

Figure 2: Peaks and troughs in Twitter discussion Debate 2, 25 August 2014

What is clear from Figure 2 is that there was a very large peak one hour and 33 minutes into the debate. This occurred at the start of a 'vox pops' video showing Scottish people talking about the importance of voting in the Referendum. The previous 30 minutes had been very heated, with the two politicians and the moderator talking over each other and some shouting. It might therefore be suggested that viewers were too busy trying to follow the arguments and listen to the intense debate to tweet. Once a break was caused by the video they then started to tweet about what they had just seen. This corresponds to research by Wohn and Na (2011) into Twitter use during television programmes that suggests that Twitter use increases during commercial breaks when viewers are able to turn their attention from what was happening on screen to discuss events on Twitter, and this particularly happens when the advertising break comes after a cliff-hanger in the narrative of the programme. Other than this, the sample showed a continuous rise in tweets apart from two troughs at 21.06 and 21.16 and a further peak at the end of the debate.

Time	**Moment of the debate**	**Number of tweets from sample**	**Peak or trough**
20.41	Salmond explains alternatives to currency union	552	Peak
20.44	Discussion about oil revenues	498	Trough
20.49	Discussion about currency alternatives	661	Peak
20.55	Discussion about whether or not Scotland could use the pound as a currency	732	Peak
20.57	Continued discussion of currency options	537	Trough
21.07	Discussion of the NHS	605	Trough
21.11	Question from the audience – 'If we are better together, why aren't we better together already?'	850	Peak

21.17	Discussion of the 'Bedroom tax'	649	Trough
21.23	Discussion of oil revenues	936	Peak
21.34	Break for vox pop video	1268	Peak
21.59	End of debate	899	Peak

Table 2: Subjects under discussion during identified peaks and troughs in Debate 2.

It should also be noted that another clear peak was stimulated by a question from a member of the audience asking Alistair Darling 'If we are better together, why aren't we better together already?' This came a few minutes after another audience member had accused Darling of being a hypocrite for attending dinners with representatives from private healthcare companies and the combined peaks at 21.09 and 21.11 seem to be in response to both of these audience comments. The third debate took place in Edinburgh on 2 September and was again broadcast by STV, which meant the inclusion of advertising breaks but no spin room this time. Figure 3 shows the overall plot of the sample's tweets for this debate and again we see a gentle but continuous rise in the number of tweets throughout the debate.

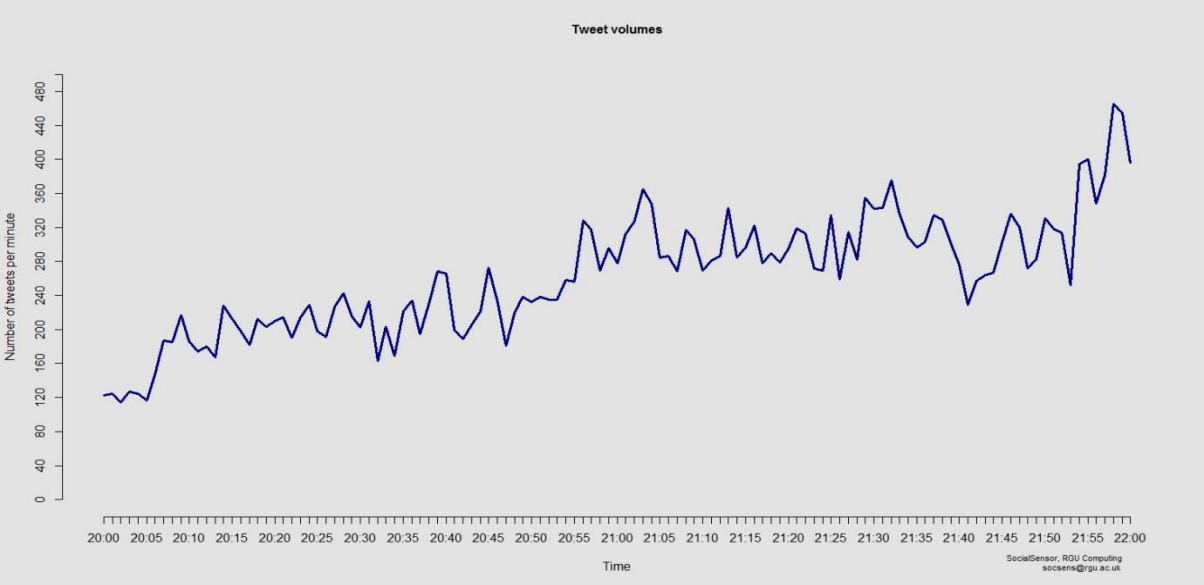

Figure 3: Peaks and troughs in Twitter discussion Debate 2, 2 September 2014

Time	Moment of the debate	Number of tweets from sample	Peak or trough
20.08	Opening speeches	214	Peak
20.12	Start of questions on the economy	158	Trough
20.13	Discussion of oil	205	Peak
30.33	Question from the audience on currency	182	Trough
20.38	Advertising break	255	Peak
20.41	Question from audience about the Institute of Fiscal Studies report	196	Trough
20.44	Elaine C. Smith on social justice	240	Peak
20.59	Elaine C. Smith questioned by Ponsonby	323	Peak
21.02	Advertising break	325	Peak
21.23	Discussion of defence issues	256	Trough
21.26	Questions from the audience about defence	286	Peak
21.40	Ponsonby questions Harvie about how far he trusts Westminster government	243	Trough
21.45	Question for all panel about worst-case scenario in 5/10 years	303	Peak
21.54	Closing statements	437	Peak

Table 3: Subjects under discussion during identified peaks and troughs in Debate 3

As far as the third debate is concerned, the first thing to be noted is that the number of tweets from our sample, even during the highest peaks, is much less than in previous debates. It is perhaps not surprising that this debate attracted fewer tweets because it was not as high profile as the previous two debates between the two leaders of the campaigns. The third debate was not advertised as much as the other two outside STV itself. It may also be that, by this time in the campaign, viewers were suffering from debate-exhaustion. Some might also have been put off by the aggression of the first two debates, particularly the second, and it should be noted that media discussion of the third debate focused on its comparatively civilised and quieter approach ('Less heat, but more light

from the latest independence debate' Peter Macmahon, ITV Borders political editor, Macmahon 2014).

This debate was also different in that it included a non-politician – the actor Elaine C. Smith – and her section of the debate, a discussion of social justice issues with Scottish Labour MSP Kezia Dugdale between 8.41 pm and 9.01 pm, saw a steeper rise in the rate of tweets and two of the highest peaks during this section and in the advertisement break immediately afterwards. Looking more closely at the sample's discussion of the individual debaters, it becomes obvious that Smith dominated Twitter discussion (see Figure 4 below). This may be because, as a non-politician, she was a comparatively fresh face for the audience on the subject of the Referendum. It may also be that her contribution to the debate focused more on appeals to the heart rather than to the head. In his review of the debate Peter Macmahon described Smith as probably losing on policy detail but winning on charisma and audience appeal (Macmahon 2014). The other debater who attracted a peak in tweets in our sample was Patrick Harvie MSP, the leader of the Scottish Greens party, who gave the closing argument for the Yes side.

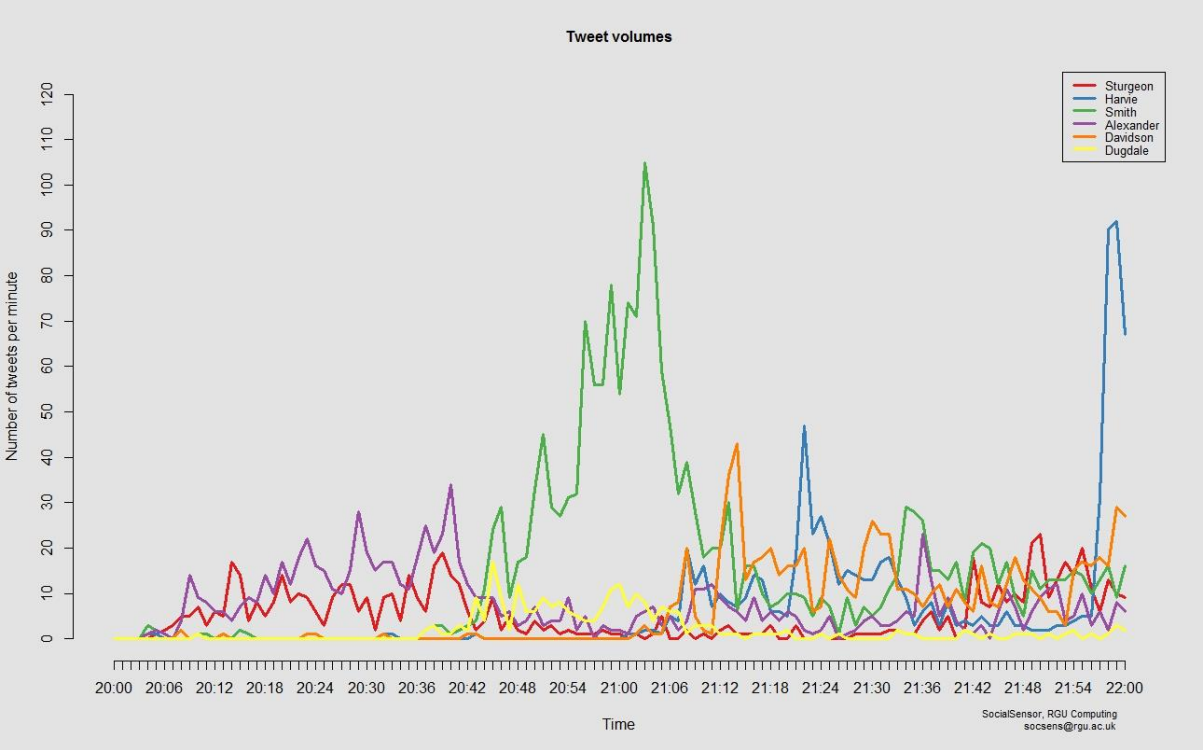

Figure 4: Mentions in tweets of individual debaters, 2 September 2014

Discussion

Looking more closely at the issues and subjects tweeted about during the debates, it is interesting to note that, overall, Twitter followed the agenda set by the television debates very closely. Whilst it has been suggested that social media can provide the venue for 'alternative' political discussion, there is little evidence of this happening during the debates. Instead, the agenda was set by the mainstream media and the politicians, and Twitter users followed along. Thus when the debaters on television discussed the currency issue, Twitter users did too. Again, this corresponds with the findings of Kalnes *et al* (2014) when looking at Twitter response to televised debates during the Norwegian general elections.

As far as the peaks and troughs in the three debates are concerned, there are some similarities and some differences. For example, the end of all three

debates saw an increase in Twitter conversation as viewers turned away from their screens to discuss what they had just witnessed. Other peaks came during advertising breaks, spin-room chats or vox-pop videos, suggesting that viewers were using such opportunities to move their attention away from the screen and on to the Internet, and suggesting that spin-room discussion and vox-pop videos were not necessary elements for the debate – it is noticeable that the second STV debate did not include the spin-room discussions.

However, there were also differences in the peaks and troughs in relation to the subjects that stimulated the most Twitter discussion, which did change somewhat as the debates continued. In the first debate, the two key issues that stimulated peaks in Twitter discussion from our sample were currency and accusations from Alex Salmond that the No campaign had been 'Project Fear'. In the second debate, although the topic of currency was discussed again, it did not stimulate the largest peaks. Instead the topics that stimulated the most discussion were discussion of oil revenues and attacks on Alistair Darling from questioners in the audience. In the third debate, the involvement of a non-politician, Elaine C. Smith, stimulated a peak in Twitter discussion in the middle of the programme while the issues of oil revenue and currency, discussed at the start of the programme, stimulated much less Twitter discussion than in earlier debates. While there was an evident trend throughout all three debates for Twitter discussion in the sample to increase continuously throughout the debate, it does seem that the issues that caught the most attention from Tweeters changed from debate to debate and that, by the third debate, issues that had stimulated the most tweets in the first debate were not attracting the same sort of attention. This suggests that viewers were keen to debate the question of Independence from all sides of the question and that fresh issues that had not

been previously discussed in detail were more likely to provoke discussion on Twitter rather than issues that had already been treated in earlier debates. However, there were some issues that apparently failed to stimulate Twitter discussion throughout the three debates, most notably the Institute of Fiscal Studies report.

It should be noted that the third debate attracted the smallest number of tweets in the sample. Factors influencing this may include a weariness of such debates amongst viewers; more viewers having made up their minds by this point in the campaign and therefore a reduction in the numbers still searching for information; less advertising about the debate before it was shown; the absence of the two campaign leaders from the debate; and viewers of the second debate being put off watching another debate because of the bellicosity of that occasion. It should also be noted that the second debate drew the largest number of tweets, which is not surprising given that it was broadcast simultaneously in both Scotland and the rest of the UK and that it was very much advertised as a 're-match' between the two combatants.

Conclusions

This paper identifies the peaks and troughs in Twitter usage during three televised Scottish Referendum debates in August and September 2014 and identifies the topics that were the foci of such peaks and troughs. As detailed above, certain subjects, such as the currency and oil revenues, attracted Twitter discussion in all three debates. However, our findings suggest that the subjects that attracted the highest amount of attention on Twitter changed throughout the course of the three debates and that there was no one subject that consistently caused the highest peaks. Instead, our sample of Tweeters

responded most vigorously to new topics – or new debaters – in each debate. Perhaps not surprisingly, the sample also responded most strongly to what might be called 'moments of political theatre' rather than thoughtful debate – as the strong surge in Twitter comments after the raised voices and aggressive questions to Alistair Darling in Debate 2 and Elaine C. Smith's impassioned speech in Debate 3 demonstrate. However, there were topics discussed in the debates that failed to stimulate Twitter discussion each time, such as mentions of the Institute for Fiscal Studies report. What is important to note is that, during the debate at least, the discussion topics in our sample followed the agenda of the debate rather than offering any alternative subjects.

Broadcasters might wish to note that spin-rooms, vox pops and advertising breaks offered an opportunity for the sample to stop watching the television and start to tweet, particularly after moments of high drama or complex argument.

Both politicians and the media need to consider how this interactive audience – Anstead and O'Loughlin's 'viewtariat' – might be further included in televised debates in the future. Might it be possible, for instance, to take questions not just from members of the audience in the television studio but also from Twitter? (The Scottish Independence Referendum campaign did witness an 'official Facebook' debate on STV on 12 September 2014, between Douglas Alexander and SNP MSP Humza Yousaf, who were posed questions asked via the STV News Facebook page and Facebook's Democracy UK page). In the 2012 Presidential election in the United States, Fox News, the host of one debate, encouraged viewers to use different hashtags (#answer or #dodge) to indicate whether they thought a candidate had answered a question or dodged it (Black et al 2012). Might we see something similar introduced in future televised debates in the UK?

Further research

As a working paper, this publication has introduced an on-going research project based on data collected during the last month of the Scottish Independence Referendum campaign and has taken an initial quantitative approach. However, much more assessment and qualitative analysis will be undertaken in the coming months. In particular, previous research in this area and analysis already undertaken suggests the following subjects will repay further study:

- **Twitter discourse external to politics**. Analysis of precisely what tweeters were discussing during the televised debates has suggested that a high proportion of tweets discussed issues other than political ones, but stimulated by the programme they were watching. For example, discussion of the opinions of others watching in the same room; of the organisation of the event or of the television company's approach to the debate and possible bias. In the second debate, for example, there were a very high number of tweets discussing the choice of Alex Salmond to walk away from the podium to address the audience directly. These tweets came from both sides of the debate and were both positive and negative. There were frequent suggestions that Salmond had learned such behaviour from the American television programme *West Wing* in which both President Jed Bartlett and Presidential candidate Matt Santos frequently roamed around the stage and walked in front of the podium.

- **Humour and cultural references**. Related to the example given above, the use of all types of humour, ranging from sarcasm to farce, is frequently found in the tweets. Often this humour is made with reference to television programmes, films or music, and tweeters demonstrated a

rich cultural hinterland that they obviously expected others on Twitter to share, with references ranging from the films of Ingmar Bergman to Mr Blobby. Previous researchers have also identified humour as a typical element of Twitter exchanges during televised debates (Harrington et al 2013, Kalsnes et al 2014, Moe and Larsson 2013) and further analysis in this area will help to deepen our understanding of the use of humour in online political communication.

- **Comments on the debaters' appearance and physical attributes**. Criticisms and attacks on the debaters were often framed in terms of their appearance, clothing or supposed sexuality. A preliminary analysis of insults used in the tweet sample suggests both a creative and wide-ranging frame of reference for such insults and also something of a gender divide. A small minority of tweeters in the third debate used sexual and sexually violent insults to attack the female debaters while this did not happen in reference to any of the male debaters throughout the three debates. More research needs to be undertaken, but these preliminary findings do agree with other research into attacks on women politicians on Twitter (Bartlett et al, 2013; Jane, 2014).

- **Understanding the information sources used by tweeters**. Tweeters frequently referred their readers to information sources outside Twitter. More research is needed to assess the quality and usefulness of such further information sources, but it seems clear that content can emerge independently of the broadcast, as Anstead and O'Loughlin (2011) suggest in their analysis of Twitter during a 2009 BBC *Question Time*

programme featuring Nick Griffin of the BNP as a panellist. They demonstrate that information and images of Griffin circulated in Twitter during the programme, but produced by tweeters themselves as extra information for their audience rather than being produced by the television programme, demonstrating more knowledge and effort by the originator than merely repeating information from the programme. There was evidence of similar activity in some of the tweets surrounding the television debates, from both the two campaign teams and other Twitter accounts, and more research is planned in this area.

- **Meta-talk about the debate on Twitter itself**. There was frequent discussion amongst tweeters of the discussion occurring on Twitter itself, both positive and negative in tone. During the first debate, as we have seen, some prospective viewers in England were unable to access the debate via the STV player and therefore turned to Twitter to try to follow the debate that way. In the second debate there was some discussion about whether the usual hashtag #indyref should be used or the hashtag that the BBC was suggesting, #bbcindyref. Others commented on popular retweets or challenged or applauded tweets from the two campaign headquarters. Such activity demonstrates a consciousness amongst Twitter users of the media they are using and its potential use by politicians and the media. Given previous research on the influence of Twitter on those following televised debates and tweeting at the same time – for example, Houston *et al* (2013)'s finding that live-tweeting a debate allows for more thoughtful processing of the debate content and

may impact on candidate evaluations – this is another aspect of our findings that will repay further study.

In addition, we plan to investigate the *types* of tweet used during the televised debates. Twitter offers three different ways of tweeting, which might be compared to Chadwick's (2006) typology of the various modes of communication available online – one-to-one, one-to-many, many-to-one and many-to-many. In their analysis of Twitter during *Question Time,* Anstead and O'Loughlin (2011) suggest that Twitter offers at least three of these modes: directed tweets from one account to one other account using the @ symbol; retweets, facilitating the one-to-many mode; and hashtags, offering the many-to-many mode. In their analysis of the *Question Time* tweets they found a decrease in directed tweets and an increase in retweeting and the use of hashtags over the course of the programme, suggesting a growing engagement in the many-to-many collective environment. It will be interesting to see whether this is replicated in the television debates on the subject of the Scottish Referendum.

There is definitely evidence that, during the debates, tweeters addressed their comments directly to the debaters or other politicians using the @ symbol, but there is also evidence of a wide-ranging use of hashtags and retweets – as stated above, sometimes at the direction of the two campaigns. Researchers such as Bruns and Burgess (2011) and Mascaro and Goggins (2012) have used retweets and the use of @ to identify the most central actors in Twitter debates and those who play a central role in information dissemination within a network. Shamma et al (2010) also identified a decrease in the use of @ at times of great significance during

President Obama's inauguration suggesting that, as viewers pay more attention to on-screen activity, they are less likely to be tweeting extensively or using syntactical functions such as @. This can be tied into our finding that, at times of fervent debate onscreen, such as in the second debate, tweeting decreased, followed by much more activity during the break offered by adverts or the vox pop video.

- **The use of Twitter by the two campaigns.** Both the Yes Scotland and Better Together campaigns made use of Twitter to disseminate their messages to both their own supporters and others. By making use of neutral hashtags such as #indyref during the televised debates, the campaigns were able to gain much wider dissemination of their messages outside the hard core of political users. Before the first debate, Yes Scotland issued a directive to its supporters to retweet its tweets during the debate. Yes Scotland then made sure that, throughout the debate, it continuously tweeted messages about its campaign and campaign promises, thus accessing voters outside their own committed supporters. In contrast, Better Together focused more on tweets commenting on the debate itself rather than disseminating their own message. It should be noted that, by the time of the second debate, Yes Scotland had double the number of followers on Twitter than the No campaign and was following over 25 times more accounts than the No campaign, suggesting more involvement from the Yes campaign in Twitter. This may be related to the age profile of social-media users. While older people are using social media in greater numbers than ever before, it is still dominated by the younger generations, and research suggests that these younger

demographics were also more supportive of Independence (Curtice, 2013). Given that the eventual result of the Referendum was a win for the No campaign, this raises questions about the importance of social media as a campaigning tool, which needs further investigation. Thus the two campaigns' different use of Twitter as a tool for communicating with voters during the debates will repay further analysis.

- **Twitter as an alternative media**. Much has been made of the role of social media as an alternative to mainstream media. Bruns and Burgess certainly found agendas independent to those of the mainstream media on the hashtag #ausvote during the Australian federal elections of 2010, although of course they tracked Twitter over a period of a month rather than just focusing on televised debates. However, as has been stated above, as far as the three televised debates discussed in this paper are concerned, there is little evidence of such alternativeness. Instead, Twitter discussion followed the agenda of the televised debates very closely, which corresponds with the findings of Kalsnes et al (2014) in their analysis of Twitter during televised debates during the Norwegian election of 2010 and suggests that – at least during such televised debates – Twitter does not offer a space for alternative politics.

However, in a fourth debate there was evidence that Twitter could act as an alternative to the mainstream media. This was a debate held in Glasgow's SSE Hydro on 11 September 2014 in front of an audience of 7,000 16 and 17 year-old school pupils. The debate was organised by the BBC during the school day and then selected highlights were broadcast

later in the day, which is why this debate was not included in the sample discussed above because it was not broadcast simultaneously or completely. The Yes side was represented by Nicola Sturgeon and Patrick Harvie while the No side was represented by Ruth Davidson and Respect MP George Galloway. Because this debate was edited before it was broadcast it offered the opportunity for the pupils who were at the debate to tweet their opinions of the edited version and also to tweet about the event as it happened. In fact, the organisers of the debate encouraged pupils to use the hashtag #bigbigdebate and also ran the Twitter feed live on the stage. Awareness of the event was therefore raised through the pupils' tweets during the day, and their criticisms of the organisation of the event and of the BBC's editing circulated via both Twitter and Facebook (*The Independent's* reviewer referred to the entertainment value of the pupils' scathing commentary). The pupils complained about having to wait for four hours for the event to start in an over-heating hall with no air conditioning and very bright lights. More damagingly for the BBC they also tweeted accusations that Yes voters had been asked to pretend to be No voters in order to present a balanced audience to viewers and, when the edited highlights were broadcast, alleged that the BBC had edited the debate to remove the negative response of the audience (booing) to some of the debaters. Thus this televised debate offers some evidence of Twitter providing a venue for alternative discussion during televised debates – although the alternative discussion focused on the mainstream media rather than alternative politics.

References

Anstead, N. and O'Loughlin, B. (2011). The emerging viewertariat and BBC Question Time. *The International Journal of Press/Politics* 16(4), 440–462

Barlett, J., Norrie, R., Patel, S., Rumpel, R. and Wibberley, S. (2014). Misogyny on Twitter. London: Demos. Retrieved from http://www.west-info.eu/files/MISOGYNY_ON_TWITTER1.pdf 24 September 2014

Black, A., Mascaro, C., Gallagher, M., & Goggins, S. (2012). *TwitterZombie: Architecture for Capturing, Socially Transforming and Analyzing the Twittersphere*. Proceedings from ACM Group, Sanibel Island, FL. Retrieved from: http://seangoggins.net/sites/default/files/TwitterZombieGroup.pdf 24 September 2014

Boyd, D., Golder, S. and Lotan, G. (2010). Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter. Presented at the Hawaii International Conference on System Sciences 43. Hawaii. Retrieved from http://ieeexplore.ieee.org.ezproxy.rgu.ac.uk/stamp/stamp.jsp?tp=&arnumber=5428313 24 September 2014

Bruns, A., & Burgess, J. E. (2011). #Ausvotes: how Twitter covered the 2010 Australian federal election. *Communication, Politics and Culture*, *44*(2), 37–56.

Chadwick, A. (2006). *Internet Politics: States, Citizens and New Communications Technologies*. Oxford: Oxford University Press.

Curtice, J. (2013). *Who supports and opposes independence, and why?* ScotCen Social Research. Retrieved from http://www.natcen.ac.uk/media/176046/2012-who-supports-and-opposes-independence-and-why.pdf 25 September 2014

Curtis, E. (2013). Twitter claims 15m active users in the UK. *The Daily Telegraph*, 6 September 2013. Retrieved from http://www.telegraph.co.uk/technology/twitter/10291360/Twitter-claims-15m-active-users-in-the-UK.html 25 September 2014

Devine, T. M. (2006). In Bed with an Elephant: Almost Three Hundred Years of the Anglo-Scottish Union. *Scottish Affairs.* Institute of Governance, University of Edinburgh, 57, 1–18

Diakopoulos, N. A. and Shamma, D. A. (2010). Characterizing debate performance via aggregated twitter sentiment. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems,* New York, 1195–98

Elmer, G. (2013). Live research: Twittering an election debate. *New Media and Society* 15(1), 18–30

Freelon, D. and Karpf, D. (2014). Of big birds and bayonets: hybrid Twitter interactivity in the 2012 Presidential debates. *Information, Communication and Society*

Harrington, S. Highfield, T. & Bruns, A. (2013). More than a backchannel: Twitter and television. *Participations* 10(1), 405–409

Holt, R. (2013) Twitter in numbers. *The Daily Telegraph* 21 March 2013. Retrieved from http://www.telegraph.co.uk/technology/twitter/9945505/Twitter-in-numbers.html 25 September 2014

Houston, J. B., Hawthorne, J., Spialek, M. L., Greenwood, M., and McKinney, M. S. (2013). Tweeting during presidential debates: effect on candidate evaluations and debate attitudes. *Argumentation and Advocacy* 49, 301–11

Ipsos MORI (2011). *Social media & the 2011 Scottish Parliament election campaign.* Retrieved from http://www.ipsos-mori.com/DownloadPublication/1442_sri-scotland-social-media-and-2011-scottish-election.pdf 25 September 2014

Kalsnes, B., Krumsvik, A. H. and Storsul, T. (2014). Social media as a political backchannel. Aslib Journal of Information Management, 66(3), 313–328

Keating, M. (2009) *The Independence of Scotland: Self-government and the Shifting Politics of Union*. Oxford: Oxford University Press

Jane, E. A. (2014). 'Back to the kitchen, cunt': speaking the unspeakable about online misogyny. *Continuum: Journal of Media and Cultural Studies* 28(4), 558–570

Macmahon, P. (2014). Less heat but more light from the latest Independence debate. ITV news. Retrieved from http://www.itv.com/news/2014-09-02/scotland-referendum-stv-debate-alexander-sturgeon/ 29 September 2014

Mascaro, C. and Goggins, S. (2012). Twitter as virtual town square: citizen engagement during a nationally televised Republican primary debate. American Political Science Association Annual Meeting 2012, New Orleans Retrieved from http://www.groupinformatics.org/sites/default/files/MascaroGoggins2012APSAFinal.pdf. 24 September 2014

Moe, H. and Larsson, A. O. (2013) Untangling a complex media system. *Information, Communication & Society*, 16(5), 775–794

Newman, N. (2010*). #UKelection2010, mainstream media and the role of the internet: how social and digital media affected the business of politics and journalism.* Retrieved from https://reutersinstitute.politics.ox.ac.uk/sites/default/files/UKelection2010,%20mainstream%20media%20and%20the%20role%20of%20the%20internet.pdf 25 September 2014

Schifferes, S., Newman, N., Thurman, N., Corney, D., Göker, A., Martin, C. Identifying and verifying news through social media. *Digital Journalism* 2(3), 406–18

Scottish Parliament (2014). Scottish Independence Referendum 2014: Results. Retrieved from http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/Scottish_Independence_Referendum_2014_Results.pdf 12 November 2014

Shamma, D. A., Kennedy, L., & Churchill, E. (2010b). Tweetgeist: Can the twitter timeline reveal the structure of broadcast events. *CSCW Horizons*. Retrieved from http://research.microsoft.com/enus/um/redmond/groups/connect/cscw_10/docs/p589.pdf 24 September 2014

Smith, C.F. and Gray, P. (1999). The Scottish Parliament: [Re-]shaping parliamentary democracy in the information age *Parliamentary Affairs* 52 (3), 429–441

Wohn, D. Y., & Na, E. K. (2011). Tweeting about TV: Sharing television viewing experiences via social media message streams. *First Monday*, *16*(3). Retrieved from http://firstmonday.org/ojs/index.php/fm/article/view/3368/2779 24 September 2014


RGU
ROBERT GORDON
UNIVERSITY ABERDEEN