

Social media and the Scottish Independence Referendum 2014: Events and the Generation of Enthusiasm for Yes¹

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Abstract

We track the social media activity of the two main campaigns in the Scottish independence referendum, Yes Scotland (YS) and Better Together (BT), by monitoring their respective Facebook and Twitter accounts on weekdays from August 2013 until the referendum vote in September 2014. We explore the relationship between key events and online support and find that the Yes Scotland campaign pulled ahead of the Better Together campaign in terms of online enthusiasm (especially following the launch of the White Paper in November 2013), and that it accelerated exponentially in the closing weeks of the campaign as a number of events helped give it an advantage. Although further research is needed, it is interesting to note how this transformation in mobilisation online for Yes preceded big movements in support offline in the closing weeks.

Social media and political campaigns: What we know and the new frontiers

Ever since the 2008 US Presidential election when Barack Obama's campaign demonstrated the potential of social media as a useful tool in political campaigning (Harfoush 2009), the use of social media by political campaigns has become more prevalent cross-nationally (e.g. Chen 2010; Lassen and Brown 2010; Gainous and Wagner 2011; Gibson and McAllister 2011; Sudlich and Wall 2011; Vergeer *et al.* 2011; Ackland and Gibson 2013; Conway *et al.* 2013; Vergeer and Hermans 2013). For politicians, social media offers a new means of

engaging supporters and also an alternative form of soliciting donations (Davis *et al.* 2009; Straw 2010; Cogburn and Espinoza-Vasquez 2011). We also know that social media has the capacity to mobilise people to participate politically (Cogburn and Espinoza-Vasquez 2011; Bond *et al.* 2012) and that it could even be a useful tool in helping predict election outcomes (Tumasjan *et al.* 2010, 2011; Sang and Bos 2012; DiGrazia *et al.* 2013; Ceron *et al.* 2014), although its ability to do the latter is contested (Jungherr *et al.* 2012). Moreover, considering its extensive usage by journalists and news organizations (Fahri 2009; Bruno 2011), social media has gained an increasingly prominent agenda setting capacity, illustrated at the extremes by the 2011 Irish Presidential election, which showed that posts on social media do have the propensity to alter voter behaviour and the result of an election in extreme cases (O'Malley 2012; Hogan and Graham 2013). In sum, with social media now such an integral part of daily life for many people (Eurobarometer Flash 2013; Pew Research Centre's Internet and American Life Project 2014) and many potential benefits accruing from a social media political presence, having some form of social media presence is almost a necessary component of a modern day campaign.

In spite of the above, research on social media's impact on politics is still relatively in its infancy. In terms of adoption by candidates and politicians, we know that social media are more likely to be used by younger candidates (Lassen and Brown 2010; Strandberg 2013; Larsson and Kalsnes 2014), and more often than not, by newer parties and progressive parties (Gulati and Williams 2011; Vergeer and Hermans 2013). However, much of our understanding is based on analyses of elections. There has been very little analysis of social media during a referendum campaign, which is likely to be different given the idiosyncratic nature of referendums compared to elections. Unlike elections, with referenda there are only two sides competing for attention, one primary issue is at stake, and voters may be less likely

to be as embedded in their preferences than in a general election, thereby increasing the possibility of volatility (LeDuc 2002). Consequently, patterns of behaviour could indeed be different from those found during elections.

Indeed, explorations of social media's impact on referendums are few and far between. The little research that does exist has been focused on discussion of referendums in online forums and whether such conversations promote deliberation (Quinlan *et al.* 2015). But there has not yet been any in-depth focus on how social media plays out in a referendum campaign.

Additionally, while most existing research on social media and campaigns has tended to explore the reasons underlying a campaign's adoption, and the extent to which voting behaviour is influenced by engagement with these channels, an important dimension has remained largely unexplored, namely: the extent to which campaigns generate enthusiasm and support through these channels, and the patterns underlying this engagement. This chapter seeks to fill this void.

The 2014 Scottish independence referendum provides a unique opportunity to explore the impact of social media as a campaign tool in a referendum. We do so by exploring the social media campaigns of the two official protagonists in the independence referendum debate, the 'Yes Scotland' (YS) campaign, which campaigned for a yes vote and in favour of Scottish independence, and the 'Better Together' (BT) campaign, which argued for a no vote, and argued for Scotland remaining within the United Kingdom. Our focus is on each campaign's use of two of the most popular forms of social media, Facebook and Twitter. Our analysis is based on a unique set of data that captures the activity of the two campaigns on these two channels over a fourteen-month period ranging from August 2013 up until the referendum in September 2014. Our objective is to threefold: 1) to examine the trends in engagement with

social media over the course of the referendum campaign; 2) to establish which campaign generated more enthusiasm online over the course of the referendum campaign; 3) To discuss of some of the potential reasons as to why particular patterns took hold.

Our analysis shows that as the campaign progressed, more and more people engaged with the campaign online, with the peak of interest occurring in the final three weeks of the campaign. Engagement on social media was particularly salient around the time of two TV debates between the main sides. We also find that the Yes campaign, on the surface at least, generated greater online enthusiasm for its campaign than the No side. We discuss a number of potential reasons for this, including some referendum specific reasons why the Yes side was able to come out on top.

The chapter proceeds as follows: we first provide an overview of the 2014 independence referendum in Scotland. We then detail our data, followed by an in-depth discussion of our empirical findings. We then discuss a number of potential reasons that could explain why we observed the patterns of behaviour we did, including advancing some referendum specific explanations. The chapter concludes with a summary of our findings as well as some suggestions for future research.

The 2014 Scottish independence referendum

The question of Scottish independence came on to the political agenda with a vengeance as the pro-secessionist Scottish National Party (SNP) won 11 seats in the UK parliament in the 1974 Westminster elections. While the fortunes of the SNP have ebbed and flowed since that election (Cairney 2011), the independence question has remained omnipresent with the presence of the Scottish National Party, resulting in Scotland having a distinct political

system (Kellas 1984; McCrone and Paterson 2002; Keating 2010). Although public opinion polls pre-2014 had never shown even close to a majority in favour of Scottish secession (Curtice 2013), the creation of a Scottish Parliament in 1999 provided the SNP with a platform for illustrating competence in governance as a way of illustrating in small part what might be possible given independence.

Indeed, the independence question took on renewed significance in the aftermath of the 2011 Scottish parliament elections, when the Scottish National Party were re-elected to power with a majority government. While the SNP's victory appears to have been driven more by Scottish voters' perceptions of the SNP's competence in running the Scottish government rather than any particular burning desire for Scottish independence (Johns *et al.* 2011, 2013), the majority result provided legitimacy to the granting of an independence vote.

The referendum was confirmed in October 2012 when the UK Prime Minister David Cameron and the Scottish First Minister and leader of the SNP Alex Salmond signed the 'Edinburgh Agreement', granting the Scottish Parliament the power to hold a referendum by asking a single question of Scottish voters. Even before the signing of the Edinburgh Agreement, both sides had actually launched official campaigns in the summer of 2012. An eighteen-month intensive campaign was initiated following the announcement of the referendum question in March 2013. The campaign was dominated by a range of issues ranging from Scotland's role in the EU in the event of independence, Trident and nuclear defences, to welfare cuts and austerity. However, the principal issue at hand was the economy with debate between both sides on Scotland's continued use of the British pound in the event of independence, the division of debt between Scotland and the rest of the UK in the event of independence, associated revenues from oil, and the impact of independence on employment

and industry.² When asked about being worse off or better off, YouGov polling evidence throughout 2014 consistently showed that more people thought that both Scotland and their own fortunes would be worse off in an independent Scotland.³

As to how the public received information, social media was arguably central to the Scottish campaign. There was substantial activity on Twitter and Facebook related to the referendum, particularly in the final 30 days of the campaign. Between 2013 and 2014, there were 5.4 million tweets using the ‘#indyref’ (Cellan-Jones 2014) and hashtags associated with the independence referendum ended up trending heavily in the final week of the campaign, at one stage even comprising eight out of 10 top hashtag trends in Glasgow for example.⁴

Meanwhile, on Facebook, there were 10 million interactions alone relating to the referendum in the five weeks preceding the vote.⁵ Afterwards, the potency of social media in the campaign was illustrated by research from pollster YouGov, which suggested that 54% of people got general information on the issues from social media, and when asked what information had influenced their decision in the referendum, 39% said information from social media and the web (Haggerty 2014). Furthermore, 11% of Scots claimed to have taken part in discussions related to the referendum online, more than those who said they attended a public meeting during the campaign, or indeed joined either of them (TNS Global 2014).

Indeed, even if a person tried avoiding social media, by accident or design during the campaign, what took place online often became the lead story for traditional news itself. This was illustrated by numerous occurrences of stories generated by the online abuse meted out to prominent politicians and donors on both sides of the campaign, for example, Nicola Sturgeon (a central Yes politician) and JK Rowling (a major No donor).⁶ As such, there is a strong case to be made that even if every single member of the electorate was not consuming and/or engaging online, they were nonetheless indirectly confronted with what was taking

place online (for e.g.: (Geser 2011; Maireder and Schlögl 2014), heightening the importance of a focus of the online trajectory of both campaigns.

Polls throughout this long campaign consistently showed the No side holding a lead, although this lead began to subside in summer 2014. The final fortnight resulted in a flurry of activity on both sides as the polls started to suggest that the result would be much closer than first thought, with two polls even suggesting that Scotland would vote yes.⁷

However, on 18 September 2014 voters in Scotland went to the polls and were asked:

“Should Scotland be an independent country?” Fifty-five percent of voters in Scotland voted no and in favour of remaining part of the United Kingdom on a massive turnout of 84.6% of voters (Electoral Management Board for Scotland 2014). While we know what happened in the polls, we are interested in exploring the state of the two campaigns on social media over the course of the campaign. Was there also a surge to Yes on social media and how might we account for this?

Data and measures

Our analysis is based on the tracking of social media activity of the two main campaigns in the 2014 Scottish referendum, namely the Yes Scotland campaign that argued for a yes vote in the referendum, and the Better Together campaign, which campaigned for a no vote. We monitored each campaign’s official Facebook and Twitter accounts, choosing these two forms of social media as we expected these two channels above all others would be most likely to engender the widest connection to, and interest from, the public. For Facebook, we specifically monitored the number of likes each campaign’s Facebook page received and the number of people talking about each campaign’s page.⁸ For Twitter, we collected the number

of Twitter followers each account boasted as well as the number of Tweets it had posted by that particular day. Our unique set of data was collected each weekday during the period August 2013 until the end of September 2014.

We suggest that these metrics can be divided into different themes, namely those indicating support/interest in the campaigns and those illustrating a deeper engagement with the campaign. Liking the Facebook page of the campaign or following one of the campaign's twitter accounts are indicators of support or interest in that campaign. On the other hand, our intensity/engagement measures require a greater level of effort either on the part of the campaign, as measured by the number of Tweets emanating from it's account, or on the part of the user. We measure the general public's intensity engagement by examining how much the Facebook page of each campaign was 'talked about' This latter metric measures how much people are interacting with each of the campaign's pages, for example by commenting/sharing a wall post, or tagging a photo.

Empirical analysis

A review of the wealth of data over the thirteen-month period has enabled us to identify three distinct patterns of behaviour during the campaign depicted in our figures by three different shaded background blocks. The first of these periods runs from the Summer of 2013 until November 2013, and the launch of the Scottish government's white paper on Scottish Independence, a period which is characterised by offline hegemony for BT and a mixed online battle. The second is the period between November 2013 and May 2014, a period in which the Yes campaign pulled ahead noticeably from the BT campaign. And finally, a third period, which runs from May 2014 until polling day, 18 September 2014, in which we observe an online tsunami of support for the Yes campaign.

Period I: Fairly close social media horse race (August 2013 to November 2013)

Figure 1 charts the extent of support (total numbers of Facebook likes and Twitter followers) for the two campaigns over a fifteen-month period, between August 2013 and September 2014.

Overall totals of Facebook likes for both the Yes Scotland (YS) and Better Together (BT) campaigns increased by approximately 30,000 between August and November 2013 (approximately 76,000 to 106,000 for YS and approximately 66,000 to 96,000 for BT). For the first period (August 2013 to November 2013), the volume of Facebook likes and Twitter followers was quite similar for both campaigns, albeit there was one noticeable blip on Facebook in mid-September 2013 suggesting a change in momentum towards BT. As Figure 1 illustrates, the BT campaign did manage to reduce the gap in Facebook support marginally right after the one year mark from the referendum. This 'year to go' milestone coincided with the launch on 19 September 2013 of a campaign called 'Mid-Morning Sessions', the purpose of which was to encourage BT supporters to step up their online activities by referring their friends on Facebook and Twitter to the BT campaign. However, closure in the gap was short-lived, and the YS campaign maintained its lead through this period (undulating and varying between just under 6,000 likes difference in mid-September 2013 and just under 10,000 likes difference in both August and November 2013).

On Twitter, YS also had noticeably more followers on Twitter than BT, and unlike Facebook likes, Twitter followers showed evidence that online support for YS was consistently pulling ahead of the BT campaign as YS pulled in twice as many new followers as BT over this period. In August 2013, YS had just over 21,000 followers versus just under 13,000 for BT.

By the end of November, YS had over 26,000 followers compared with just over 15,000 for BT.

Figure 1 about here

Figure 2 explores the extent of support for the two campaigns over a fifteen-month period, between August 2013 and September 2014. The figure depicts the difference in the number of likes between the Yes Scotland campaign's Facebook page and the Better Together campaign's Facebook page (as illustrated by the orange line). It also shows the difference in the number of Twitter followers for each campaign, illustrated by the green line. In sum, the Yes Scotland campaign had an advantage in the number of Facebook likes and Twitter followers it had for its campaign from the outset. While this was an advantage that the Yes Scotland campaigns were never to lose throughout the entire campaign, as Figure 1 shows, in this early period of the campaign, the differences between the two campaigns was quite marginal suggesting a close horse race.

Figure 2 about here

Figures 3 and 4 depict level of engagement with the two campaigns according to the number of tweets on Twitter and the 'talked about' metric on Facebook respectively. Interestingly, BT were consistently ahead of YS in the number of tweets that were posted between August 2013 and November 2013. That said, the margin of difference was consistently being closed by YS, so that a BT advantage of more than 1,200 extra Tweets per day in August 2013, was almost halved by the end of November 2013 (see figure 3).

Figure 3 about here

Conversely, the Facebook ‘talked about’ metric was invariably a few thousand more in favour of YS than BT (for example, in August 2013 YS were at approximately 8,000 compared to approximately 5,000 for BT), except on a couple of occasions in early October 2013 when BT surpassed YS. However, proportionately, this lead is arguably more impressive than the lead for likes. Also, compared with the number of Facebook likes, the ‘talked about’ metric is a more precise indicator of how much people are engaging with the campaigns.

Initially, the YS campaign was the more ‘talked about’, reaching a peak at the time of the UK party conference season in September 2013. However, the BT campaign did appear to gain some short-lived traction in its favour at the beginning of October, when it was making a concerted effort to focus attention on what would happen to the currency and to taxes in an independent Scotland and when it launched several regional campaigns. The YS campaign then succeeded in regaining momentum following the 2013 SNP annual conference.

Figure 4 about here

In sum, the campaign period from August 2013 until November 2013 suggests a close horse race on social media. While YS were behind (but closing) in terms of the volume of tweets, the other metrics of engagement and support suggest a steady, but slight, lead on average for the YS campaign.

Period II: The launch of ‘Scotland’s Future’ and the rise of the Yes campaign online despite dire warnings over the currency and EU membership (November 2013 to May 2014)

The referendum campaign intensified considerably online following the launch of the Scottish Government's White Paper on independence (aka '*Scotland's Future*') on 26 November 2013. It is very noticeable from this point that the solid and consistent Yes Scotland (YS) lead in terms of support, at least on Facebook, began to widen. At the launch of *Scotland's Future*, the YS Facebook page had been averaging around 8,000 more likes than the BT campaign. After the launch the gap between the two campaigns started to grow, and edged up considerably over the next six months, to an extent that by the end of May 2014 YS were ahead of BT by just over 30,000 Facebook likes (see Figures 1 and 2). The YS campaign also gained more Twitter followers than BT during this period. From the end of November 2013 to the end of May 2014, the gap steadily doubled from a 10,000 advantage over BT to well over a 20,000 lead with YS having nearly double the followers (45,000 to 23,000 – see Figures 1 and 2). This represents an important development in which YS were developing a much larger network of tweeters and re-tweeters of the yes to independence campaign messages.

Moreover, by the middle of March 2014, YS started to tweet more than BT for the first time (see Figure 3), and this lead has been extended. Figure 3 charts the number of tweets emanating from each campaign's account and by the end of May 2014, YS had tweeted more than 500 more times than BT (4,930 times compared to 4,393 respectively). The YS campaign was also more consistently 'talked about' on average than the BT campaign during this period (see Figure 4). Of the 105 daily data time points we have during this period, the BT campaign was the more talked about on only 13 occasions. Indeed, as the purple line shows for this period, despite two fairly substantial swings towards BT, the overall trend was one of upward growth for YS. On the two main occasions when momentum swung back to the BT camp, this followed concerns raised by European Commission President Jose Manuel

Barroso over the possibility of Scottish membership of the EU as well as Chancellor George Osborne insisting that a currency union was not possible in the event of independence (both in February 2014), and the release of a report by Moody's on the challenging financial implications of independence in May 2014.

Period III: Official campaign period, impact of events and an overall online tsunami towards Yes (May 2014 to September 2014)

The official campaign period (a 16 week period from 30 May 2014 to 18 September 2014) saw the online and offline campaigns in full swing. Offline activities included: door-to-door canvassing; leafleting; parades; street bands; creative art projects; banners; posters; the sporting of lapel badges and T-shirts, as well as countless interventions from industry figures, politicians, and celebrities, and two set piece televised debates between the two campaign leaders. Online campaign activity increased too, especially following the two TV leader debates.

What is most noticeable during the official campaign period is that online support for YS literally took off compared with BT (see Figures 1, 2, and 3). The only very slight aberration to this coincided with the first television debate between the two campaign leaders, on 5 August 2014 when an ICM poll for *The Guardian* newspaper found that Alistair Darling (BT) 'won' the debate with Alex Salmond (YS) by 56% to 44%.⁹ That said, in terms of Facebook likes YS extended its lead over BT from 27,000 at the end of May 2014 to over 109,000 by the day of the referendum (see Figures 1 and 2). Similarly, the YS lead in terms of Twitter followers jumped from 22,000 at the end of May 2014 to over 68,000 by the day of the referendum (see Figures 1 and 2).

In relation to campaign Tweets, the final numbers of Tweets (8354 for YS and 5740 for BT) suggested a ratio of 41 per cent for BT versus 59 per cent for YS (see Figure 3). The volume of tweeting by YS increased significantly during the official campaign period, and moreover increased more than it did for BT. This arguably matters because if you are giving your supporters comparably more tweets to re-tweet and share on other sites such as Facebook, then your potential for both audience reach and message control is arguably going to be much greater.

Interestingly, before September 2014 very few public opinion polls were in the 40s for Yes, whereas during September only one poll out of 19 was not in the 40s. In turn, there was a clear shift in public mood and volume of support for Yes in September and our online data arguably detect this momentum slightly ahead of time as depicted by the steepening curves of both Facebook likes and Twitter 'Followers' during the official campaign period, and in particular following the 2nd TV debate on 25 August 2014 in which Alex Salmond (leader of the SNP and main face of YS) was deemed the winner over Alistair Darling (a prominent Scottish Labour politician and leader of the BT campaign). Arguably compounding the leverage of this second debate performance was the airing of the so-called 'Patronising BT Lady' television commercial in which a hypothetical uninformed middle-class house-wife talked herself into voting no. Much parodied (for example, 'ma fridge magnets told me to vote No'), the commercial was widely derided as being a male creation representing another era.¹⁰ In turn, it arguably alienated many female voters and represented a spectacular misfire for the BT campaign.

However not all of the social media metrics pointed so clearly towards a Yes victory. The Facebook ‘talked about’ metric (see Figure 4) was interesting in that despite a general upward trend for YS, there were two clear time points when the momentum swung dramatically back to the BT campaign¹¹. The first precipitous swing towards BT followed the first leaders’ TV debate on 5 August 2015, in which pundits generally thought BT leader Alistair Darling outperformed YS leader Alex Salmond. The second swing towards BT was huge (see Figure 4) and occurred during the last week of the campaign. Following public opinion polls suggesting a last minute move towards Yes (as well as evidence from our blog on the online tsunami that was taking place¹²) there was a last minute flurry of activity from the three main Westminster parties and leaders who rushed north to rally the cause in Scotland. What manifested was what the media labelled a ‘vow’ for more powers to Scotland than No had been willing to countenance beforehand (albeit what this ‘vow’ meant varied across the parties making up the No camp), as well as an outpouring of numerous warnings from many prominent business and industry players of the implications of a yes vote in the closing days. Ex-Labour Prime Minister, Gordon Brown, also delivered what was widely perceived to be the speech of his life in the closing days of the campaigns and the BT campaign finally tried to reclaim brand Scotland through the use of red heart balloons and logos with Scotland written all over them.

Most importantly, what our data show, especially in this final period, is that events very much appear to be driving online activities. This finding nicely supports research by others such as Rossman et al.(2014) who found surges in Twitter activities around the time of the TV debates between the two Chancellor candidates in the 2013 German election, a pattern which is very much mirrored in our analysis.

Understanding patterns of social media behaviour in the campaign

There are a number of possible reasons for Yes having carved a decisive lead online. Our starting framework is that social media in a referendum campaign is likely to result in the Yes side having a positive advantage because the medium is such that social media favours 'positive messages'. For instance, it is invariably easier to 'like' a positive Facebook post of say, a party, than it is to 'like' a negative post of say, a car accident you might have been in. This is arguably even more the case when this also relates to one's own country (for example, Yes to Independence, or even Yes to Scotland) than to like a negative position (for example, No to Independence, which could feasibly be perceived, or misperceived, as No to Scotland).

Second, it could be that those backing the Yes side were simply more engaged in their campaign than were the No supporters. Consequently, Yes supporters may have been more likely than No supporters to express their views in a public forum. Indeed, a June 2014 poll by TNS BMRB showed that Yes supporters were three times more likely to have discussed the independence question online (TNS BMRB, 2014). Another potential issue to consider is the observation of Michael Keating that the campaign ground war favoured the Yes side because the No campaign included two parties that were weak in Scotland, the Conservative and Liberal Democrats, meaning that much of the ground war was left to only one of three parties on the BT side, Labour (Keating, 2014). It was also difficult for the No side to present coherence given the slightly different flavours of No on offer, not to mention the rather incredulous position of having the two main opposing parties at General Elections at the UK level seemingly on the same page as each other in the referendum. Indeed, this was a gift for the Yes side as Labour could be labelled as 'red Tories' (a label that persisted and that ultimately hurt Scottish Labour in the UK General Election in 2015).

Third, data show that younger age groups are more likely to be involved online than older age groups. A 2013 Eurobarometer survey, for example, illustrated that 28% of EU citizens on average said they had expressed their view on a public issue online or through social media in the past two years (Eurobarometer Flash, 2013). This figure rose to 39% for individuals under the age of 40. Given that we now know that more young people voted for independence than against it¹³, we would expect greater support and engagement for the YS campaign on average as a result.

Furthermore, in a high stakes election such as the independence referendum in which fear of misinformation was omnipresent, social media offered the capacity for many on both sides to seek out information, although many would argue that social media was a source for misinformation to be spread too. In particular, those advocating independence arguably had a means to by-pass traditional media formats that, to many within the Yes camp, were perceived as inbuilt defenders of the status quo in both name (for example, *British Broadcasting Company*) and content (see for example, the protests outside the BBC in the days running up to the referendum). For many on the Yes side in particular, social media became not just a means to share information and to rally the troops to attend and support events¹⁴, but also a means to correct perceived bias in more traditional media formats (see for example, focus group research of Carvalho and Winters (forthcoming)).

Conclusion and discussion

Our chapter has explored the interplay of social media in a referendum campaign. The 2014 Scottish referendum could indeed be classified as ‘the first social media referendum’. Our contribution has specifically measured the extent of enthusiasm each campaign generated online and has examined the interplay between events and online support. Our contribution shows that the Yes campaign generated a greater degree of enthusiasm online. We speculate as to a number of reasons why that may have occurred including some referendum specific factors ranging from: it

is easier to like a positive (vote yes) than a negative (vote no); YS were more engaged online and more united; YS had the benefit of more younger supporters who are more active on average online; and YS turned to social media as a reaction to the perceived bias of the content of traditional news sources. Our analysis also illustrates that certain events in the course of the campaign did appear to have an impact in terms of generating enthusiasm and interest in the online campaigns of both sides including the launch of the White Paper on Scottish independence in November 2013, the TV debates between Alex Salmond and Alistair Darling, and in the final week, the publication of an opinion poll suggesting a yes victory. Accordingly, what we can say is that engagement with online campaigns appears to be driven by events, illustrating that behaviour observed on social media seems to be strongly influenced by specific newsworthy items.

Given the final electoral outcome, three of our online metrics (Facebook likes, Twitter followers, and Tweets) were arguably in a converse relationship with what took place as 55 per cent of voters voted no and 45 per cent voted yes. Consequently, you could argue that Facebook likes and Twitter followers and volume of Tweets by the two campaigns were not a very good predictor of the final referendum outcome. However, what is arguably more interesting is the nature of the relationship between the shift in online fortunes of YS with the change in offline fortunes of the YS campaign.

To conclude, while it is impossible to infer any form of causation without taking into account a multitude of other factors, it is at least noteworthy that increased online activity and overall online trends for the two campaigns often preceded subsequent increased support for Scottish independence in the polls. No may have won the independence referendum, but our data generally suggested momentum was moving to Yes, which it was, and which the final result is testament to if we contrast this with where Yes were a year out from the referendum. Yes went from nowhere to somewhere, and the online data is arguably useful in detecting this development before the opinion polls. Nonetheless, it should be evident that the Yes side's advantage in generating online enthusiasm was not sufficient for victory. While this might at face value indicate that online activity can tell us little about movements in general public opinion, we

have at least demonstrated that the surge in support for the yes campaign among the general public was preceded by a rally in support online, which at least suggests that online activity might be able to be used to predict to a certain extent offline activity. Future research is needed to explore this.

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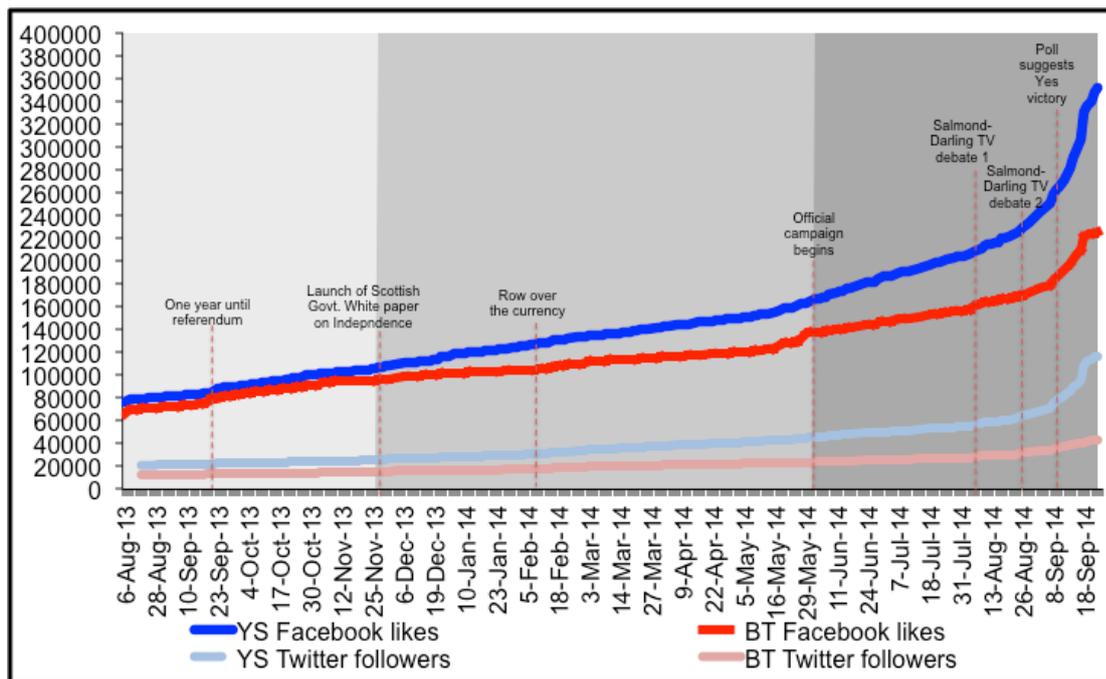


Figure 1 Facebook and Twitter support totals for both campaigns (August 2013 to September 2014)

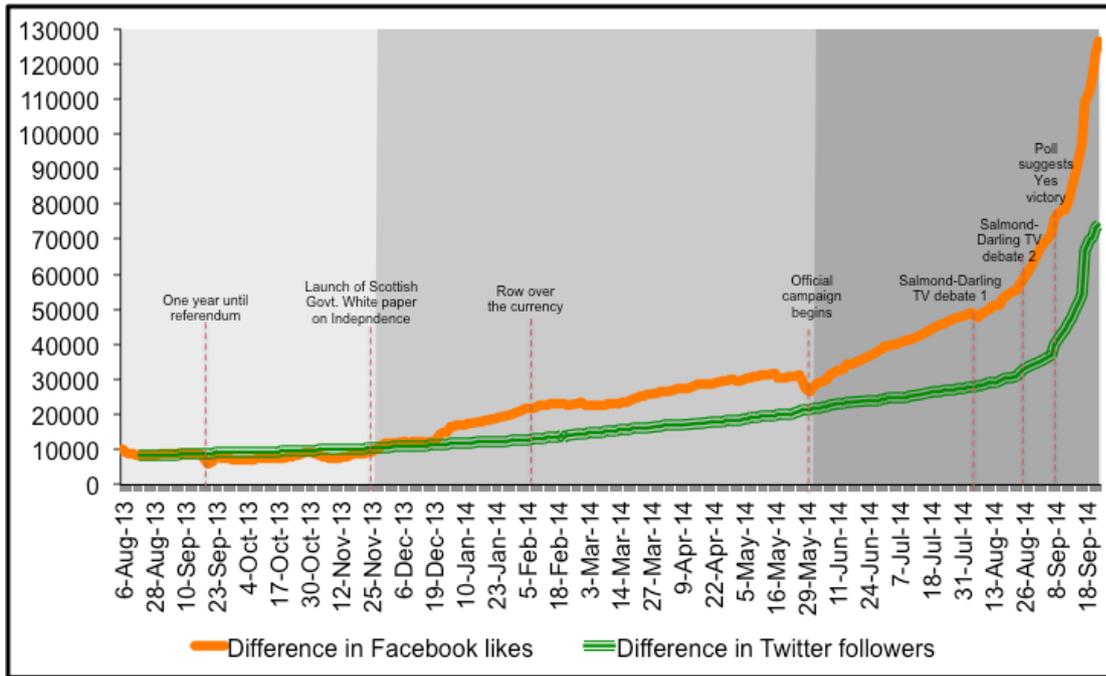


Figure 2 Differences in Facebook and twitter support levels for both campaigns - YS campaign total minus BT campaign total (August 2013 to September 2014). *Please note: a positive score indicates an advantage for YS campaign. The direction of scoring is purely arbitrary.*

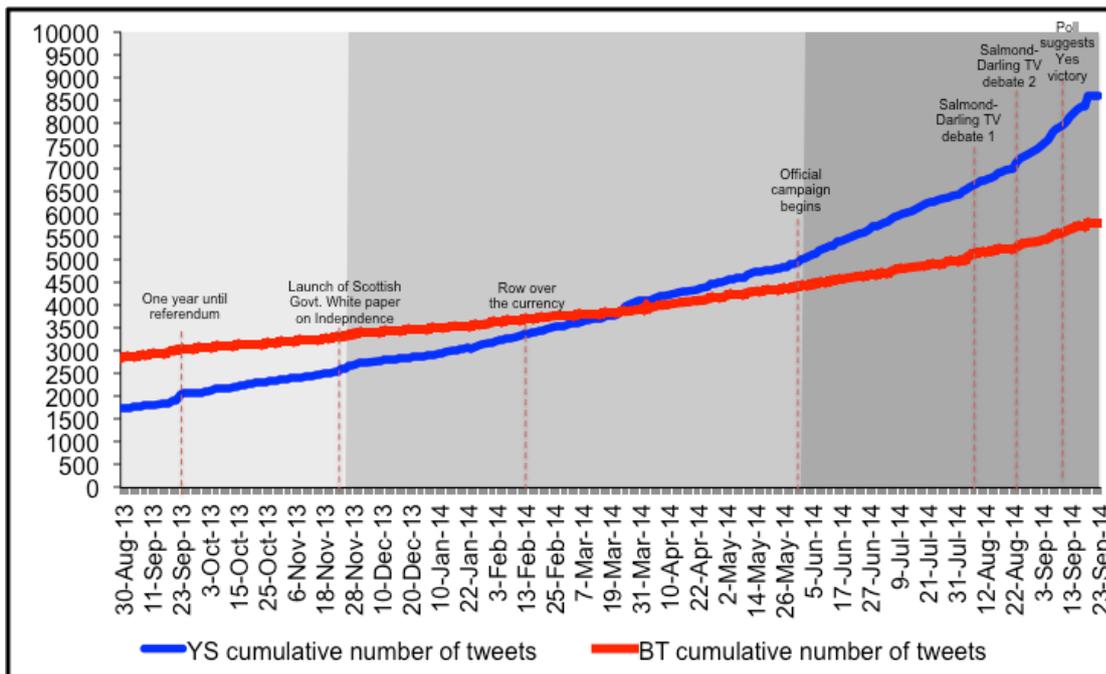


Figure 3 Social media intensity of engagement by the campaigns: number of cumulative tweets from each campaign (August 2013 to September 2014)

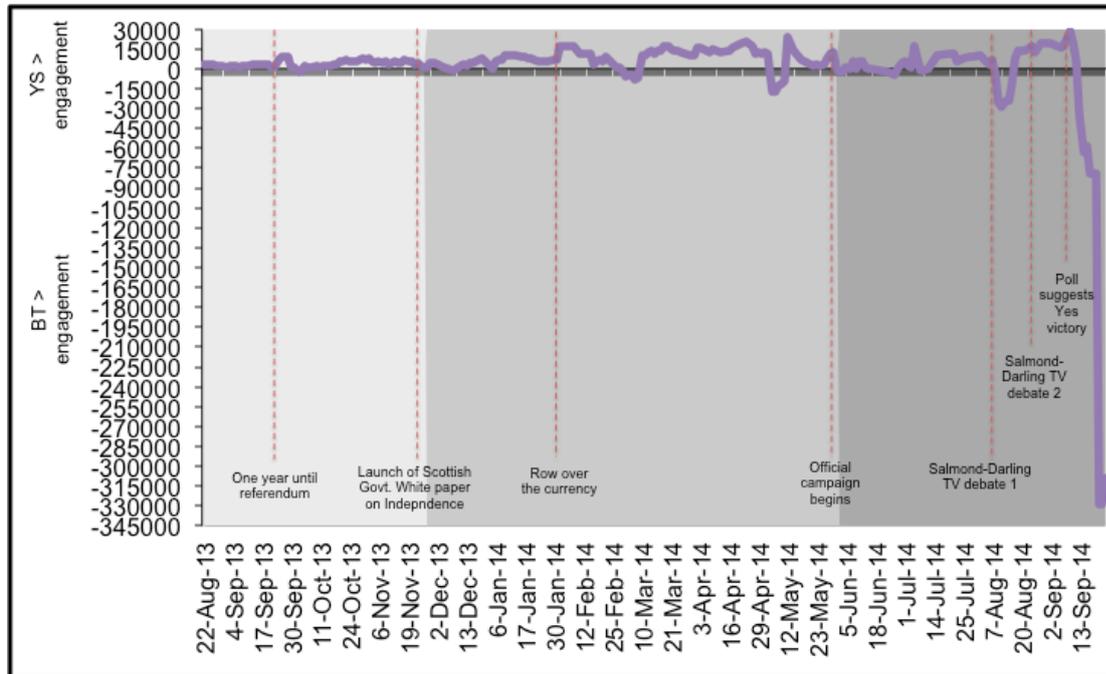


Figure 4 Social media intensity of engagement by the public with social media campaigns: difference in the number of people talking about each of the campaigns (August 2013 to September 2014). *Please note: a positive score indicates an advantage for YS campaign. A negative score indicates an advantage for BT campaign. The direction of scoring is purely arbitrary.*

Notes

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² See for example: Black, A., 'Scottish Independence: What Is Going on in Scotland?', <http://www.bbc.co.uk/news/uk-scotland-scotland-politics-26550736> (date accessed: 5 May 2015)

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- ³ See for example: YouGov's economy question polling in 'Scotland Trackers – Scottish Referendum' https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/5lijo88bs3/YG-trackers-Scottish-Referendum-150501.pdf (date accessed: 5 May 2015)
- ⁴ Trends 24: Twitter Trends (2014) Twitter Trends in Scotland: 11 September-18 September 2014 [online], <http://trends24.in/united-kingdom/glasgow/~cloud> (observation during the final week of the referendum)
- ⁵ *The Guardian* (2014) 'Scottish independence referendum inspires 10m Facebook interactions', *The Guardian*, 16 September 2014, available: <http://www.theguardian.com/politics/2014/sep/16/scottish-independence-10-million-facebook-interactions> (date accessed: 3 May 2015).
- ⁶ See for example: Nicolson, S., 'Scottish Independence: A Civilised Debate?' <http://www.bbc.co.uk/news/uk-scotland-27809898> (date accessed: 5 May 2015); and Stevenson, A., 'The Tyranny of the Cybernats: Is online Aggression Hurting Scottish independence?', <http://www.politics.co.uk/comment-analysis/2014/08/31/the-tyranny-of-the-cybernats-is-online-aggression-hurting-sc> (date accessed: 5 May 2015).
- ⁷ See September 2014 YouGov and ICM polls discussed in: <https://yougov.co.uk/news/2014/09/06/latest-scottish-referendum-poll-yes-lead/>; and Curtice, J., 'ICM Put Yes Ahead – Perhaps', <http://blog.whatscotlandthinks.org/2014/09/icm-put-yes-ahead-perhaps/> respectively (date accessed: 5 May 2015).
- ⁸ The 'Talked About' Facebook metric is a compendium measure of several actions that show engagement with a page, and takes into account the average number of likes per page, number of posts to a page wall, liking/commenting on/sharing a wall post, and phototags.
- ⁹ Carrell, S., and Brooks, L. 'Scottish Debate: Salmond and Darling in Angry Clash Over Independence', <http://www.theguardian.com/politics/2014/aug/05/alex-salmond-alistair-darling-scotland-debate-independence> (date accessed: 5 May 2015)
- ¹⁰ See for example, 'Scottish Independence No Campaign Given Savage Mauling on Twitter, The Best of #PatronisingBTLady', http://www.huffingtonpost.co.uk/2014/08/27/patronisingbtlady-scottish-independence_n_5721048.html (date accessed: 10 March 2015).
- ¹¹ Facebook metrics at the time indicated that the largest volume of contributors for both BT and YS were from the under 34s in the Glasgow area. While we cannot rule out the role of contributors from outside Scotland, the metrics suggest that they were not primary forces in driving the swings.
- ¹² Shephard, M. and Quinlan, S. (2014) 'Is the "Yes" Online Tsunami Finally Paying Dividends?', 16 September 2014, <http://blog.whatscotlandthinks.org/2014/09/yes-online-tsunami-finally-paying-dividends/> (date accessed: 10 March 2015).
- ¹³ See for example, Curtice, J. (2014) 'So Who Voted Yes and Who Voted No?', <http://blog.whatscotlandthinks.org/2014/09/voted-yes-voted/> (date accessed: 10 May 2015).
- ¹⁴ See Michael Comerford quotes in MacDowall, C. (2014) 'How twitter is being used in the Scottish independence referendum debate' 9th January 2014, <http://phys.org/news/2014-01-twitter-scottish-independence-referendum-debate.html> (date accessed: 11 March 2015).