



Digital-Born and Legacy News Media on Twitter during the UK General Election

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Key Findings

In this RISJ factsheet we analyse a sample of 4.26 million news-related tweets from a larger dataset of 28 million tweets collected during the 2017 UK General Election to examine the role of digital-born and legacy news media¹ in online political discussions. To do this, we have mapped Twitter discussions around a range of keywords and hashtags tied to the election as well as the activity of 129 British media outlets, including 105 legacy media and 24 digital-born outlets.

We find that:

- Legacy media, including most broadcasters BBC News, Channel 4 News, and Sky News – as well as The Economist and the Financial Times and a few pure digital-players figured very prominently in the political discussion on Twitter.
- A number of organisations with considerable audience reach that tweeted very frequently, mostly tabloid newspapers, as well as most of the regional and local outlets saw very limited audience engagement during the electoral campaign.
- Legacy media generated almost four times as much activity and engagement as digital-born news media during the election: 78% of news-related tweets either originated with or included explicit references to legacy media, compared with 22% that originated with or included explicit references to digital-born news media.
- Broadcasters were particularly dominant around unforeseen events such as the Manchester and London Bridge attacks, while national newspapers

- played a more important role around the conventional political process.
- Tweeting frequently and having a high number of followers are not necessarily related to high levels of engagement from audiences. Some prominent broadcasters (BBC News and Sky News), and national newspapers (The Independent, The Guardian, and the Daily Telegraph), saw very high levels of engagement, which is consistent with their high level of posting activity and their audience reach. Interestingly though, some like The Economist and the Financial Times, as well as digital-born sites (including US-based brand Breitbart, politically-focused ones like The Canary, Conservative Home and Guido Fawkes/Order-Order but also the more entertainment-oriented Lad Bible), saw disproportionately higher levels of engagement than expected given their tweeting activity and online audience reach.
- Several sites drew much lower levels of engagement than their general audience reach, follower count, and frequent tweeting would suggest. This is especially the case for the *Daily Express* the most active media outlet during the General Election but also the *Daily Star*. These low-performing sites also include other British tabloid and mid-market newspapers as well as some digital-born sites originating in the US and now also operating in the UK.
- Engagement is very unevenly distributed. A few media organisations, including Sky News, Channel 4 News, The Economist, but also the Mail Online and The Guardian, are mentioned between 50 and 100 times

¹ Note that in this study we classify as legacy media those outlets that preceded the advent of the web and as digital-born media those outlets that do not have an offline edition. See the complete list of media studied in Table A1.

on average for every tweet of their own. However, many news organisations, especially local and regional newspapers as well as smaller digital-born news media, received as many replies and mentions as the number of tweets they posted, suggesting very limited engagement. Interestingly, many of these organisations, as well as several digital-born, have a higher ratio of following to followers than the most prominent sites in Twitter political conversations. Nonetheless, they see limited engagement in return.

General Overview

Digital-born and legacy media are competing to control the most central positions in the flow of online news. Unsurprisingly, these positions can grant them the highest levels of audience attention. How the competition between long-established brands (i.e. legacy media) and more recently created online outlets unfolds on Twitter is still largely unknown. Previous factsheets in this series have contributed to advance our knowledge in the field by looking into the French and German media markets. These studies suggest that legacy media figure very prominently during major political events, and the most important media brands in terms of reach largely control news audience attention on Twitter. Notably though, these studies also coincide with identifying a few digital-born outlets that are able to draw the same level of attention as their legacy peers with much smaller audience reach and resources (see more in Majó-Vázquez, Nurse, Simon, & Nielsen, 2017; Majó-Vázquez, Zhao, & Nielsen, 2017).

The UK 2017 General Election that took place on 8 June provides yet another opportunity to investigate these dynamics in one of the most important countries in Europe. And a country that is different from France, where digital-born media are more prominent (Nicholls, Shabbir, & Nielsen, 2016), and the US market, which is most frequently analysed. The UK case is more similar to the German media market, especially in terms of the role played by public service media. But the terrorist attacks occurring in Manchester and on London Bridge during the election campaign provide an unprecedented window to investigate these competitive media market dynamics. This also offers an opportunity to better understand audience behaviour in the interplay between the political process and unforeseen emergency events.

Hence, the purpose of this RISJ factsheet is to present an overview of 1) the allocation of news audience attention on Twitter during the UK election and 2) the potential influence of digital-born and legacy media on this key platform of news distribution.

The UK context is characterised by historically strong legacy media both in the private sector and in public service, with national newspapers and the BBC playing a particularly prominent role online (Cornia, Sehl, & Nielsen, 2016; Sehl, Cornia, & Nielsen, 2016). In terms of digital-born news media, the UK combines several strong entrants from the US (including BuzzFeed, the Huffington Post, and Vice) as well as several domestic

digital-born players ranging from the Bureau of Investigative Journalism to the more entertainment-focused Lad Bible. Social media platforms are also widely used for news: 41% of Internet users say they get news via social media – especially Facebook, used as a source of news by 29%, but also Twitter, used as a source of news by 12% in the UK (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017). This means only a few news brands have higher online reach for news than Twitter (including the BBC but also *The Guardian*, the Huffington Post UK, and the Mail Online). Reliance on social media for news is notably higher for younger media users in particular.

Activist groups, political parties, and news organisations alike are increasingly investing in efforts to engage with people, mobilise support, and shape political discussions on Twitter in order to set the news agenda and to drive offline political participation (Ceron, Curini, & Iacus, 2016; DiGrazia, McKelvey, Bollen, & Rojas, 2013; Jungherr, 2016; Vaccari et al., 2015). The fact that Twitter dynamics go beyond the minority who use the platform illustrates its broader role and justifies the importance of understanding news audience behaviour here too. We therefore seek to analyse communication patterns on Twitter during the UK General Election. In particular, we seek to compare the activity, reach, and potential influence of different digital-born and legacy news media.

To examine the relative dominance of legacy and digitalborn organisations, and to understand their role more broadly in political discussions surrounding the UK General Election, our methodology is as follows. We begin by first assessing the distribution of news content throughout the electoral campaign cycle. We then rank the main providers of news-related tweets according to their tweeting activity and retweet (RT) counts. Lastly, we combine measures of news production with audience engagement to offer a more nuanced understanding of the relative influence of legacy and digital-born outlets. Building on our previous studies in this series using identical methodology, we expect legacy media to be even more dominant in the UK than in France. We also expect our results to resemble those obtained for the German media market given their structural similarities.

Data Collection

Our dataset contains 4.26 million news-related tweets from a larger dataset of 28 million tweets collected between 5 May and 9 June 2017. We gathered all tweets sent by a pre-selected set of British media (see complete list in Table A1, in the Appendix) based on their audience reach as measured by ComScore. We strategically added to the original selection several digital-born outlets not captured by the overall sampling. Before starting the data collection process, we identified the main Twitter usernames that news media operate for news distribution and included them in our crawler.

The crawler collected all tweets that included the name and username of our strategic media sample.

Tweets where media names were mentioned in URLs embedded in text were also gathered. Finally, we also included in our sample news-related tweets from other users by identifying relevant hashtags in the overall British Twitter conversation.² We tracked trending conversations twice per day – and more frequently during unforeseen events and the polling day – and included the most important hashtags in our Twitter crawler too. Our final sample includes 835,258 original tweets and 3.43 million RTs (see Figure 4 for more information). We refer readers to our previous factsheet on the French Presidential Election (Majó-Vázquez, Zhao, & Nielsen, 2017) for a detailed discussion of the data collection strategy and a description of the filtering process.³

News Content Activity

In Figure 1, we plot the total volume of tweets about the UK General Election disaggregated by type of news media. We consider two categories of news organisation:

1) legacy media, including national daily newspapers, broadcasters, mid-market tabloid newspapers, news agencies, radio stations, business newspapers, free national newspapers, magazines, and weekly, regional, and local newspapers; 2) digital-born outlets including a mix of pure news providers, blogs, and aggregators. Due

to their reach in the UK, we have also included in this analysis international digital-born outlets such as The Daily Beast, Mic, and Breitbart, which play a pronounced role in the British online media ecosystem. The main findings of this longitudinal analysis are:

- Legacy media figured far more prominently in the overall flow of news content during the 2017 General Election. Namely, 78% of the total news-related tweets generated during this event were posted by or included explicit references to legacy media.⁴ In contrast, only 22% of this content originated with or included explicit references to digital-born news media. (These results are close to our findings in France, where 88% of news-related Twitter activity during the Presidential Election involved legacy media, with 12% involving digital-born media.)
- Unsurprisingly, Figure 1 shows large spikes in the volume of tweets surrounding major events that took place during the campaign. The terrorist attack in Manchester generated the highest number of newsrelated tweets registered in one day, with more than 350,000 messages. Because anti-terrorist policies were hotly debated during the electoral campaign, we include in our study news-related tweets around this tragic event, as well as those related to the subsequent London Bridge attacks. Further disaggregation of these results shows that the level of activity of

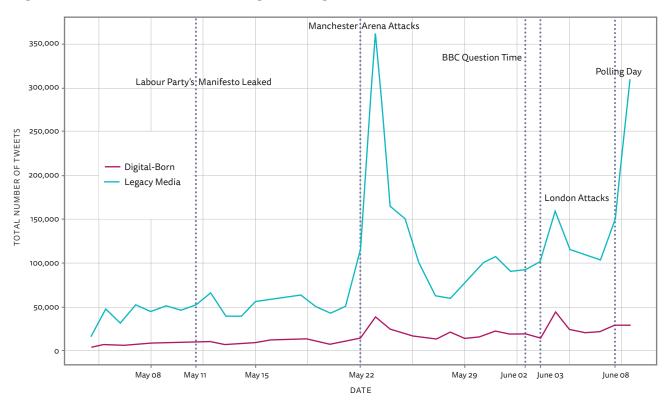


Figure 1. Volume of tweets over time by legacy and digital-born media

² Gnip provided all the tweets that fully matched our data collection strategy and mentioned or included a URL of the Financial Times and The Times and the Sunday Times.

³ Our factsheet on the French Presidential Election also provides a thorough discussion of the limitations of studies using the Twitter Streaming API for data collection. It also lists further references that systematically assess our data collection procedure.

⁴ We tracked mentions to media by collecting all tweets that included news media names and usernames as well as those that mentioned news media in URLs embedded in the text.

- national daily newspapers during terrorist attacks is much lower than that of the broadcasters (see Figure 2). Note that there are five broadcasters and five national daily newspapers included in this sample, but also that *The Guardian* and *The Independent* were the second and third most active media outlets during the electoral campaign. The data suggest that, firstly, a news audience may seek out a broadcaster's tweets during emergency situations, and secondly, that the broadcasters' live tweeting strategy is more successful, in terms of engagement, compared with that of the national daily newspapers.
- The category of legacy media includes a wide range of different types of news providers. Figure 2 looks at the specific production and prominence of each of those types and provides a more illuminating analysis of their importance in terms of the volume of activity during the electoral cycle. It shows that television is the highest ranked in relation to all other categories. British broadcasters were responsible for the highest number of tweets related to the election and are more frequently mentioned during this period. In total 1.48 million tweets either originated with or included explicit references to British broadcasters. National daily newspapers are the second category in terms of Twitter activity (986,184 tweets), followed by mid-market tabloid newspapers (399,110 tweets) and magazines (154,837 tweets). For comparison purposes, Figure 2 also includes the evolution of the volume of tweets over time by digital-born outlets (576,722 tweets).
- At times during the election campaign national daily newspapers reached parity with broadcasters in terms of overall tweet volume (Figure 2). These moments corresponded to pure political events such as the leak of the Labour Party's manifesto, appearances by the Conservative candidate Theresa May and the Labour candidate Jeremy Corbyn on the BBC Question Time programme, as well as the election day itself. Even the most prominent major newspapers drew less attention and engagement than the major broadcasters during high-profile events like the Manchester and London Bridge attacks. However, newspapers still played a very relevant role in discussions around the conventional political process.
- Interestingly, digital-born media overtook the level of activity of national daily newspapers right after the London Bridge attacks on 3 June (see Figure 2). On that particular day, digital-born outlets registered their highest level of tweeting activity.
- In total, 399,110 tweets were posted by or included explicit references to mid-market tabloid newspapers, which accounted for approximately 9.5% of the overall news activity generated during the General Election. This type of news source was exceptionally prominent during the terrorist attack in Manchester, almost reaching the same level of conversation as digital-born outlets.

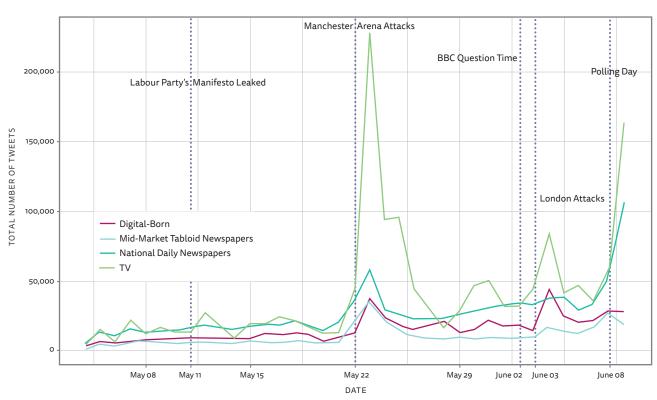


Figure 2. Volume of tweets over time by media type

Most Active Media

Next, we take a closer look at the volume of Twitter activity generated by individual news brands. Table 15 shows the ranking of the 20 most active media outlets on Twitter as measured by the number of tweets they posted across their accounts during the electoral campaign. At this level, we find that:

- The Daily Express is the most active news organisation during the General Election. This mid-market tabloid newspaper posted almost 11,000 tweets from two different Twitter accounts twice the number of tweets posted by the second most active mid-market tabloid, the Daily Mirror (5,198 tweets). Interestingly though, and despite this exceptionally high frequency of activity, the Daily Express received a particularly low level of engagement from other Twitter users (more on this later).
- Behind the Daily Express we find The Guardian is the second most active news organisation on Twitter (8,144 tweets) across its four accounts dedicated to political news content. Another legacy brand, The Independent, which terminated its print edition in 2016 to publish exclusively online, ranked third (7,565 tweets from one unique account).

- BBC News, the brand with the highest audience reach and the second one in terms of the number of individual Twitter accounts studied (N=8), is in only fourth position in the ranking of the most active media during the election. Overall, all the BBC Twitter accounts posted 6,219 electoral news-related messages. Another broadcaster, ITV News, with a higher number of Twitter accounts studied (N=11), is fifth in terms of the volume of messages (6,111 tweets).
- Some regional and local newspapers whose websites reach a much more limited audience online compared with national news sources posted a surprisingly high volume of Twitter messages during the election. This is particularly the case for the Scottish newspaper *The Scotsman*, which published over 3,037 tweets about the General Election.
- Only two digital-born outlets are among the top 20 most active media organisations on Twitter: the American-based brand Huffington Post (3,579 tweets) and the niche site PoliticsHome (3,295 tweets).

Table 1. Ranking of the 20 most active news media outlets on Twitter⁶

| | Туре | Brand | Online Audience Reach % | Tweets by Media |
|----|-----------------------------------|---------------------|-------------------------|-----------------|
| 1 | Mid-Market/Tabloid Newspaper | Daily Express | 7.70 | 10,951 |
| 2 | National Daily Newspapers | The Guardian | 14.40 | 8,144 |
| 3 | National Daily Newspapers | The Independent | 8.86 | 7,565 |
| 4 | Public Service Media Organization | BBC News | 22.97 | 6,219 |
| 5 | TV | ITV News | 1.91 | 6,111 |
| 6 | National Daily Newspapers | Daily Telegraph | 14.90 | 5,497 |
| 7 | Mid-Market/Tabloid Newspaper | Daily Mirror | 8.83 | 5,198 |
| 8 | TV | Sky News | 3.19 | 3,884 |
| 9 | Digital-Born, International | Huffington Post UK | 3.13 | 3,579 |
| 10 | Mid-Market/Tabloid Newspaper | Daily Star | 3.24 | 3,492 |
| 11 | Digital-Born | PoliticsHome | 0.07 | 3,295 |
| 12 | Mid-Market/Tabloid Newspaper | The Daily Mail | 18.46 | 3,271 |
| 13 | Mid-Market/Tabloid Newspaper | The Sun | 9.05 | 3,075 |
| 14 | Regional Newspaper | Scotsman | 0.89 | 3,037 |
| 15 | Regional Newspaper | The Herald | n/a | 2,988 |
| 16 | Regional Newspaper | Evening Standard | 3.65 | 2,715 |
| 17 | Free National Newspaper | Metro | 4.94 | 2,162 |
| 18 | Radio | LBC | 0.34 | 2,126 |
| 19 | Local Newspaper | The Herald Plymouth | 0.46 | 2,042 |
| 20 | Local Newspaper | Birmingham Mail | 1.5 | 2,038 |

⁵ The Independent is coded as National Daily Newspaper to reflect its long legacy tradition although it terminated its printed edition in February 2016 and has published as a digital-only operation since then. Scottish national newspapers have been included under the label Regional Newspapers.

⁶ Source for online audience reach: comScore MMX Key Measures, % reach desktop only, average last 3 months, April 2017.

- The ranking of most active media organisations confirms that legacy media are also more active on Twitter by a wide margin compared with digitalborn brands. With the exception of the mid-market tabloid Daily Express, national daily newspapers and broadcasters are the most active organisations in posting political news on the platform.
- Notably, when the organisations' activity is examined at the account level instead of the brand level,7 the Daily Express continues to lead overall as the most active organisation, followed by the accounts of two national daily newspapers, The Independent and The Guardian. Using this account-level measure, the BBC (@BBCNews) falls at 15th position in terms of newsrelated tweets posted during the electoral campaign (n=2,153 tweets).

Media Influence

The most basic indicator of influence on Twitter is the number of RTs received by organisations, which indicates a media outlet's ability to generate election news content with pass-along value (Cha, Haddadi, Benevenuto, & Gummadi, 2010). In Table 2 we examine the number of RTs received by news media posts during the General Election and find that:

- Seven out of ten of the most retweeted tweets were related to the terrorist attacks that took place during the electoral campaign.
- Tweets by television broadcasters dominate the ranking of most retweeted messages.
- Content-wise this ranking speaks for the importance of videos to increase audience attention on Twitter.
 Six out of the ten most retweeted messages contain videos, including the most retweeted message, a video posted by ITV News.
- On the polling day, The Guardian posted the most retweeted message among all election-related messages collected.

Finally, Figure 3 measures news media influence on Twitter by considering how well media organisations manage to engage with audiences in conversation about the election news. We map media influence along two dimensions: 1) the ratio of messages sent to messages received and 2) the ratio of accounts followed over the number of followers each outlet attracted. We draw here on previous research on network role identification on Twitter (González-Bailón, Borge-Holthoefer, & Moreno, 2013) to understand the influence of different media on this platform. In short, we assess the overall potential influence of each media outlet by relating their level of audience engagement, as measured by the number

Table 2. Most retweeted tweets

| | Туре | TW Username | Text | RT Count | Date | Type of Content |
|----|--------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|--------------------|
| 1 | TV | itvnews | 'We had to pull nails out of children's faces': Steve, a homeless man who was sleeping near #Manchester Arena, rushed to help young victims https://t.co/U5eZOuVhQi | 46,671 | 23/05/17 | Video |
| 2 | Public Service Media Organisation | BBCBreaking | Ariana Grande to perform benefit concert at Emirates Old Trafford Cricket Ground for victims of Manchester attack https://t.co/RFnKlgOTmC | 16,752 | 30/05/17 | Image |
| 3 | Public Service Media Organisation | BBCNewsnight | "We can react in anger. Or we can react by doing" - powerful interview with blood donor Ian in Manchester https://t.co/SAO2U3uYoK | 14,670 | 23/05/17 | Video |
| 4 | TV | SkyNews | Defiant poem pays tribute to the spirit of Manchester, written and performed by @LongfellaPoet at the #ManchesterAttack vigil. Whatch in full https://t.co/w2Zr6wAsTG | 12,052 | 23/05/17 | Video |
| 5 | Public Service Media Organisation | BBCBreaking | PM Theresa May: UK terror threat level raised from severe to critical, which means further attack may be imminent https://t.co/nuxwoMjjHw | 9,951 | 23/05/17 | Video |
| 6 | National Daily Newspapers | GdnPolitics | Morning! If you've just picked up your phone, here's a quick visual guide to how @theresa_may's #GE2017 night went https://t.co/MtFD87EUs6 | 8,849 | 08/06/17 | Video |
| 7 | Public Service Media Organisation | BBCBreaking | It's official: #HungParliament for UK. No party can win a majority https://t.co/jpy6wsvCIX #GE2017 #BBCelection https://t.co/PkhA8es9df | 7,334 | 08/06/17 | Animated Image |
| 8 | Public Service Media Organisation | BBCBreaking | Nineteen confirmed dead and about 50 injured in incident being treated as terrorist attack at Manchester Arena https://t.co/1pUtzLUhPi | 6,943 | 22/05/17 | Image |
| 9 | TV | itvnews | What's the naughtiest thing @theresa_may has ever done? http://bit.ly/2sMRJIK | 6,918 | 05/06/17 | Video |
| 10 | Mid-Market/Tabloid Newspapers | DailyMailUK | Several people killed and many injured after two explosions in Manchester Arena at the end of Ariana Grande gig dailym.ai/2rMK9ag | 5,983 | 22/05/17 | Image |

⁷ Table 1 shows news media activity at brand level. To this end we have merged the activity of all the accounts belonging to the same parent organization. Several nation-wide media outlets have more than one Twitter account for news information -including those of their regional news desks. Here we have studied a strategic sample of them and they are listed on Table A1 in the Appendix.

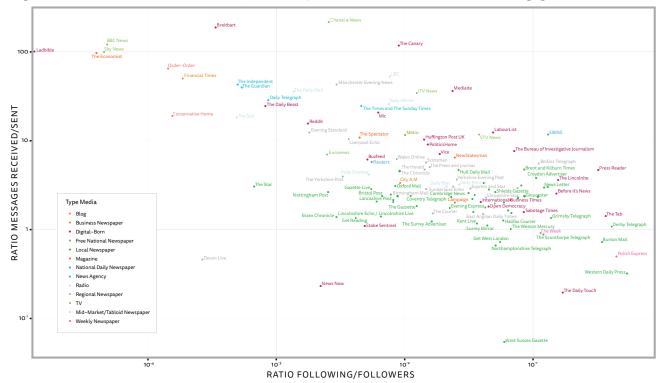


Figure 3. Distribution of media outlets by network position and levels of conversation engagement 8

of mentions and replies news organisations receive each time they post a message, to the relationship they establish with their followers. The basic idea here is that an organisation is considered to be influential if it receives a disproportionate number of replies or mentions relative to its own activity on Twitter and the number of followers it has compared with the number of people it follows back. Media brands are plotted along these two dimensions in Figure 3, which shows the distribution of audience attention by media brand and their relationship with Twitter publics. We find that:

- When accounts are aggregated at the media organisation level, Channel 4 News on average attracted most engagement on Twitter during the electoral campaign as measured by the ratio of messages received to messages sent. This broadcaster is very closely followed by two digital-born and partisan news outlets, the left-leaning The Canary and the right-leaning Breitbart, and the BBC, which is the third most influential media organisation. However, when we examine at the individual account level, the BBC's Twitter account @BBCBreaking is far and away the foremost influential media organisation, receiving on average 1,300 messages per post sent during the General Election.
- The national daily newspapers The Independent and The Guardian, while prominent, do not attract the highest level of engagement on Twitter during the election despite being two of the most active media organisations on the platform during this period.

- High levels of tweeting activity displayed by the Daily Express during the campaign resulted in an insignificant position in terms of audience engagement per message sent, even though this mid-market tabloid follows a larger number of Twitter accounts, relative to its number of followers, than some of the top influential and much less active media (like Lad Bible and The Canary).
- At the individual account level, television broadcasters' accounts, such as @BBCBreaking, @ Channel4News, and @SkyNewsBreak, clearly drive Twitter attention during the campaign, especially in the days surrounding the Manchester and London Bridge attacks. Some broadcasters do not have the same sizeable elite audience as major newspapers and top digital-born outlets, but they often have wider reach and a more popular audience offline as well as online.
- Interestingly, several digital-born outlets with minimal reach online (see Table A1 for details) still manage to achieve high levels of relative engagement with respect to their Twitter activity. This is particularly the case for Breitbart, The Canary, the Lad Bible, and the political blog Guido Fawkes/Order-Order. These sites are the most influential digital-born media by this measure and also exhibit a very low ratio of following/ followers. In other words, although they are much less active in directly engaging with other users, audiences very frequently mention or cite their content in Twitter political conversations.

 $^{8\}quad \text{Nodes are identified where space permits. We have used a base 10log scale for the x and y axis.}$

- The Economist was the eighth most influential news media organisation on Twitter during the General Election. Although it only tweeted 1,400 electionrelated messages – it is not even among the top 20 most active outlets – it received on average almost 100 messages each time it sent a tweet. Similarly, the Financial Times ranks 20th in terms of influence despite being one of the least active media on Twitter during the campaign.
- Local, weekly, and regional newspapers have the highest ratios of following/followers, which suggests they maintain a closer relationship with their Twitter publics. But overall, such organisations see very little engagement in return. The ratio of messages received/ sent is generally negatively related to the level of audience engagement – similar to previous findings concerning local and regional media in France and Germany (Majó-Vázquez, Zhao, & Nielsen, 2017; Majó-Vázquez, Nurse, Simon, & Nielsen, 2017).

Summary

This document provides a descriptive analysis of the role of digital-born and legacy media in the flow of news content on Twitter during the 2017 UK General Election. We have found that legacy news media are dominant in both the overall production of news content on Twitter and attracting the highest levels of engagement from audiences. Interestingly, however, small pure digital outlets, especially partisan news sites, exhibit a very high level of influence on Twitter conversations around the election. These, as well as brands like *The Economist*, see much higher levels of audience engagement than one would expect based on their overall audience reach.

Broadcasters and a few national newspapers loom large, challenged primarily by American and a few British digital-born sites that see significant engagement around their UK-election-related content. Broadcasters are particularly dominant with respect to unforeseen events like the Manchester and London Bridge attacks, but national newspapers play a more prominent role with respect to other more ordinary aspects of the political campaign. In contrast, many media organisations, including a significant number of regional and local media as well as small digital-born outlets, generate very little engagement on Twitter, although they tend to establish a closer relationship with their publics.

References

Ceron, A., Curini, L., & Iacus, S. M. (2016). First-and second-level agenda setting in the Twittersphere: An application to the Italian political debate. *Journal of Information Technology & Politics*, 13(2), 159–174.

Cha, M., Haddadi, H., Benevenuto, F., & Gummadi, P. K. (2010). Measuring user influence in Twitter: The million follower fallacy. *Icwsm*, 10(10–17), 30.

Cornia, A., Sehl, A., & Nielsen, R. K. (2016). Private Sector Media and Digital News. Oxford, UK.

DiGrazia, J., McKelvey, K., Bollen, J., & Rojas, F. (2013). More tweets, more votes: Social media as a quantitative indicator of political behavior. PloS One, 8(11), e79449.

González-Bailón, S., Borge-Holthoefer, J., & Moreno, Y. (2013). Broadcasters and hidden influentials in online protest diffusion. *American Behavioral Scientist*, 57(7), 943–965.

Jungherr, A. (2016). Twitter use in election campaigns: A systematic literature review. Journal of Information Technology & Politics, 13(1), 72–91.

Majó-Vázquez, S., Nurse, J. R., Simon, F., & Nielsen, R. K. (2017). Digital-Born and Legacy News Media on Twitter during the German Federal Election. Oxford, UK.

Majó-Vázquez, S., Zhao, J., & Nielsen, R. K. (2017). The Digital-Born and Legacy Media News Media on Twitter during the French Presidential Elections. Oxford, UK.

Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D., & Nielsen, R. K. (2017). *Digital News Report*. Oxford, UK. Retrieved from http://www.digitalnewsreport.org/

Nicholls, T., Shabbir, N., & Nielsen, R. K. (2016). Digital-Born News Media in Europe. Oxford, UK.

Sehl, A., Cornia, A., & Nielsen, R. K. (2016). Public Service News and Digital Media. Oxford, UK.

Vaccari, C., Valeriani, A., Barberá, P., Bonneau, R., Jost, J. T., Nagler, J., & Tucker, J. A. (2015). Political expression and action on social media: Exploring the relationship between lower-and higher-threshold political activities among twitter users in Italy. *Journal of Computer-Mediated Communication*, 20(2), 221–239.

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Figure 4. Sampling and filtering process



We first filtered tweets that fulfilled these criteria:

Tweets in English that either:

- contained the name of a UK political party
 - contained the name of a candidate
- were posted by a party or a political candidate.

Or

• Tweets contained the top hashtags used by news media**

The resulting sample was further filtered via tweets that contained:

- a UK media name
- a UK media username
 - a UK media URL

Or:

• Tweets posted by a UK media outlet account



- * The final sample analised includes 278 million original tweets and 5.92 million re-tweets
- ** See the full list on the Appendix