

# British and Irish perspectives on Brexit

Analysis of sentiment on social media can be an important addition to policy making. Here we analyse the divergent response to Brexit on social media in Ireland and the UK.

What are people in Ireland most concerned about in relation to Brexit? What about people in Great Britain? Are both groups concerned about the same issues or are there notable differences? How have the concerns of both groups changed over time? These are all interesting questions that policymakers would like to know the answers to as they develop Brexit strategies. They are questions that we can go some way to answering by applying data analytics techniques to the publicly available data people post on social media platforms like Twitter, Facebook and reddit. While much has been said in political circles and in the media, the public also have views on critical issues such as Brexit. Teagasc and UCD recently conducted a study to compare the Twitter discourse surrounding Brexit in Ireland and Great Britain across a 14-week time period. Using data analytics techniques, this study frames the issue as a corpus comparison problem in which the online discussions of different groups are treated as different corpora to be compared.

## Approach

We collected Brexit-related tweets from January 15 to April 23, 2017. The official Twitter application programming interface (API) allows researchers to collect tweets based on specific search terms and specified locations. We used a variety of Brexit-related search terms (for example *brexit*, *#brexit*, *hardbrexit*, and *softbrexit*) and defined regions covering Great Britain and Ireland. We collected a total of 1,210,402 tweets – 72,652 tweets from Ireland and 1,137,750 tweets from Great Britain.

To extract the different topics present in the tweets from Ireland and Great Britain we applied a technique called Jensen–Shannon divergence (JSD), which can identify the words and phrases (“divergent terms”) that are prominent in one corpus, but that are not prominent in the other. We can apply the same technique to multiple corpora. To understand the change over time, we divided the data into multiple corpora, each covering a week, to find the terms that are prominent in one week but which then lose attention.

## What are people talking about?

**Figure 1** shows the most divergent terms between British and Irish Brexit-related tweets. A bar to the right (green) indicates that a term was more common in Irish tweets, while a bar to the left (brown) indicates a term that was more common in British tweets. The length of the bars indicates how divergent a term was.

From **Figure 1** we can see that the most divergent terms are *northern*

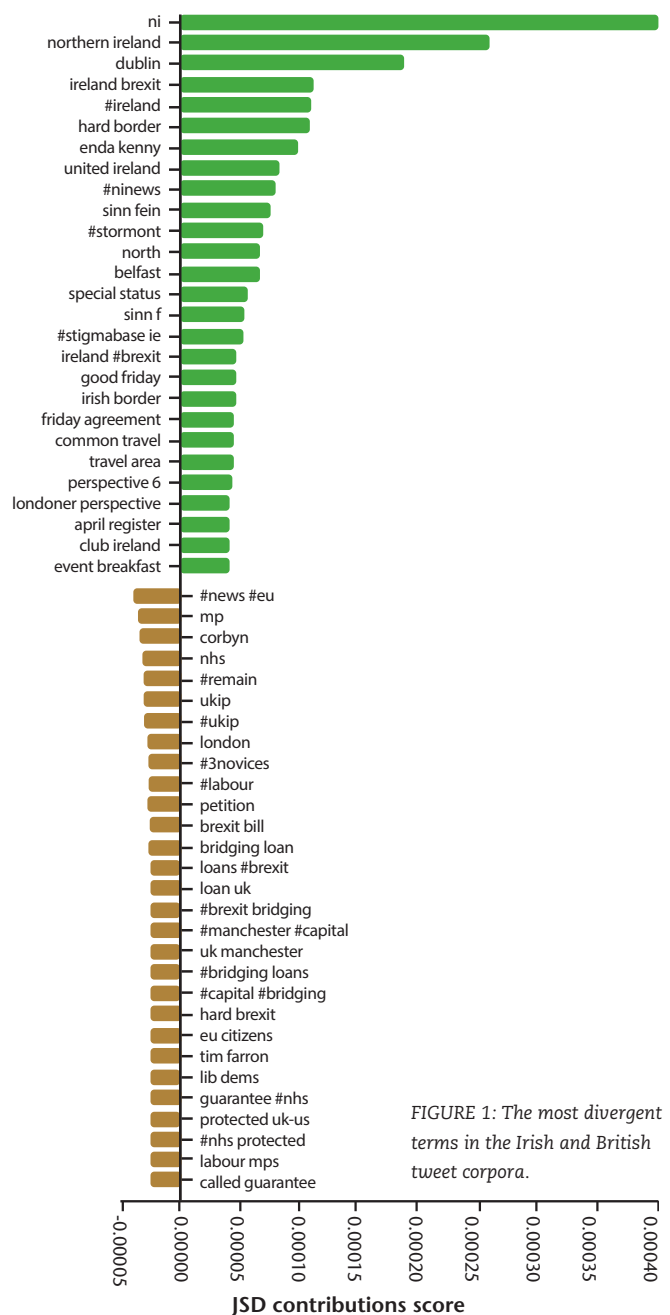


FIGURE 1: The most divergent terms in the Irish and British tweet corpora.

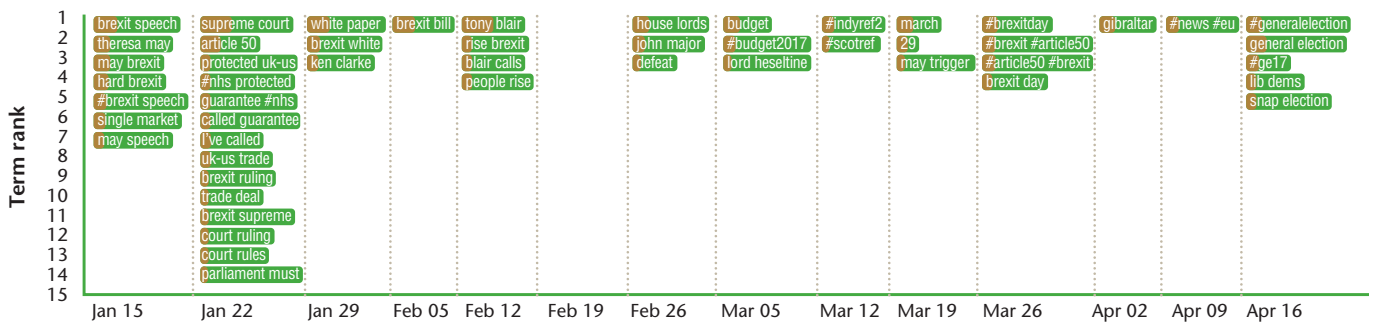


FIGURE 2: The most divergent terms in the British tweet collection over the period studied.

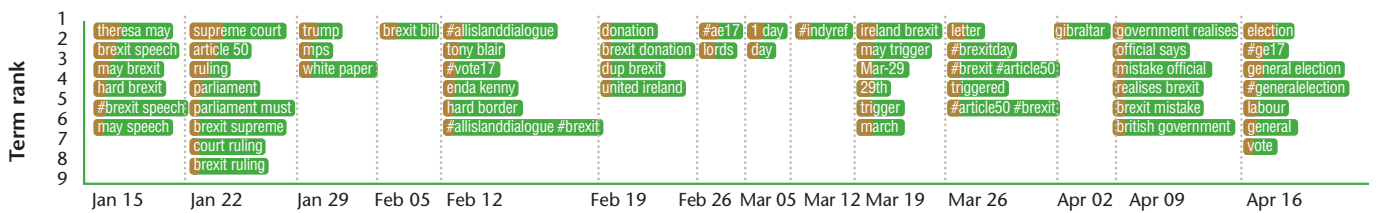


FIGURE 3: The most divergent terms in the Irish tweet collection over the period studied.

ireland and its abbreviation *ni*, which are prominent in tweets from Ireland but not in tweets from Great Britain. This illustrates that the key difference between the concerns surrounding Brexit expressed on Twitter by people from Ireland versus Great Britain is a focus on the impact on Northern Ireland and, in particular, its border with the Republic of Ireland. We see this echoed in other divergent terms like *stormont*, *hard border*, *sinn fein*, *united ireland*, *good friday*, *friday agreement*, *common travel*, and *enda kenny*. Conversely, the British tweets seem focused on more local issues such as *corbyn* (the British Labour Party leader Jeremy Corbyn), *#ukip* (the Eurosceptic United Kingdom Independence Party), and *nhs* (the UK's National Health Service), and potential impacts of Brexit such as *eu citizens*, *hard brexit*, and *london*.

### The evolution of attention

Figure 2 shows how the top concerns over Brexit by people from Great Britain changed over time. In general, before February, they were concerned with topics surrounding British Prime Minister Theresa May's speech, Article 50, and the Supreme Court. In contrast, during February and March, their concerns seemed to become distracted by many other issues when considering Brexit, like Budget 2017 and the Scottish independence referendum, as evidenced by the presence of terms *#budget2017*, *#scotref*, and *#indyref2*. However, at the end of March, the topics around Article 50 came back to the public sight. Theresa May signed the letter to trigger Article 50 and instigate Brexit on March 29, which also explains the high ranks of phrases *#brexitday*, *may trigger*, *#article50* and *#brexit* at that time.

Figure 3 shows the most distinctive phrases from Irish tweets over the studied time period. The result shows an extremely similar situation to the British one. Overall, from January 15 to April 23, the focus of Twitter attention to Brexit in Ireland surrounds May's speech, the triggering of Article 50, the Scottish independence referendum, and the British general election. There are some differences, however, evidenced by the appearance of terms like *united Ireland* and *hard border*.

### Conclusion

Brexit has the potential for massive impact across Ireland and Great Britain. In this article we have demonstrated one approach to understanding the concerns of different groups of people through the use of data analytics techniques on social media. Of course, this comes with the caveat that this analysis reflects a self-selection bias in terms of people and organisations that choose to express themselves on Twitter and we should be conscious of the ongoing issue of the presence of automated bot accounts on Twitter. Nonetheless, we believe that this kind of analysis can be an important addition to the policy-making toolbox.

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### Authors

**Jinghui Lu**

PhD Student, Teagasc and University College Dublin

**Brian Mac Namee**

Funded Investigator, The Insight Centre for Data Analytics, University College Dublin

**Maeve Henchion**

Principal Research Officer, Teagasc Rural Economy and Development Programme, Ashtown, Dublin

Correspondence: maeve.henchion@teagasc.ie

