On 6 April 2016, only two months before the UK's EU membership referendum, the Netherlands held an non-binding referendum on the Association Agreement (AA) between the European Union (EU) and Ukraine.

Signed in 2014 as a replacement to the previous EU-Ukraine Partnership and Cooperation Agreement, the AA represents a new state in the development of EU-Ukraine relations, aimed at establishing closer political and economic cooperation between the countries involved.

Although the Dutch Parliament had already approved the AA in July 2015, citizens called for a referendum on the issue. With 64% of negative votes, on April 6 Dutch voters overwhelmingly rejected the AA, against the position of the Dutch government and the EU establishment. Nevertheless, as most of European newspaper pointed out, the victory of the "no" front should be interpreted less as a rejection of the Association Agreement itself than a more general protest vote against the EU.

How did the Twittersphere react to the victory of the "no" in the aftermath of the referendum? From April 6 to 9 we collected all English tweets containing the following keywords and hashtags: "EU-Ukraine", "EU Ukraine" #DutchReferendum, and "Dutch referendum", for a total of 14,803 tweets sent by 9,458 unique users.

Brexit as a dominant theme

Figure 1 shows all the hashtags that have been tweeted more than 50 times over the period monitored, and their relative frequency.
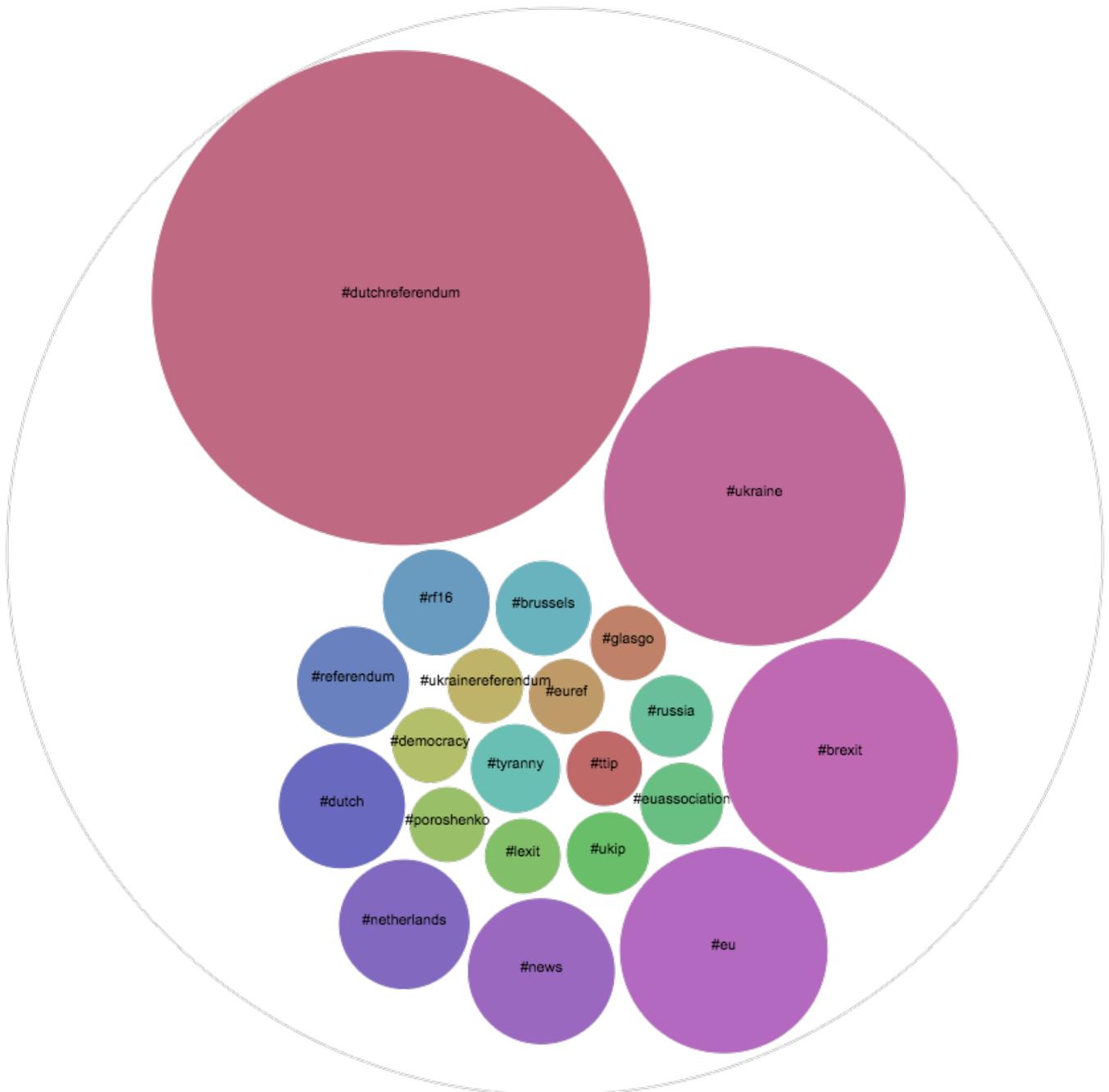
Figure 1

From the picture we can already see how a significant part of the online discussion about the Dutch referendum, actually turned out to be about the Brexit issue: #Brexit was the third most tweeted hashtag (488 occurrences), after only #dutchreferendum and #ukraine. In

addition, the hashtags #ukip and #lexit are among those tweeted more than 50 times.

What do tweets say?

In order to understand people's reactions to the Dutch referendum, we applied natural language processing to sort news-sharing tweets from attitudinal ones. the results are shown in Figures 2 and 3.

News sharing vs. Attitudinal Tweets

Total	
Tweets	14803
Users	9458
News	
Tweets	9947
Users	6919
F-score	0.861
Attitude	
Tweets	4856
Users	3499
F-score	0.714

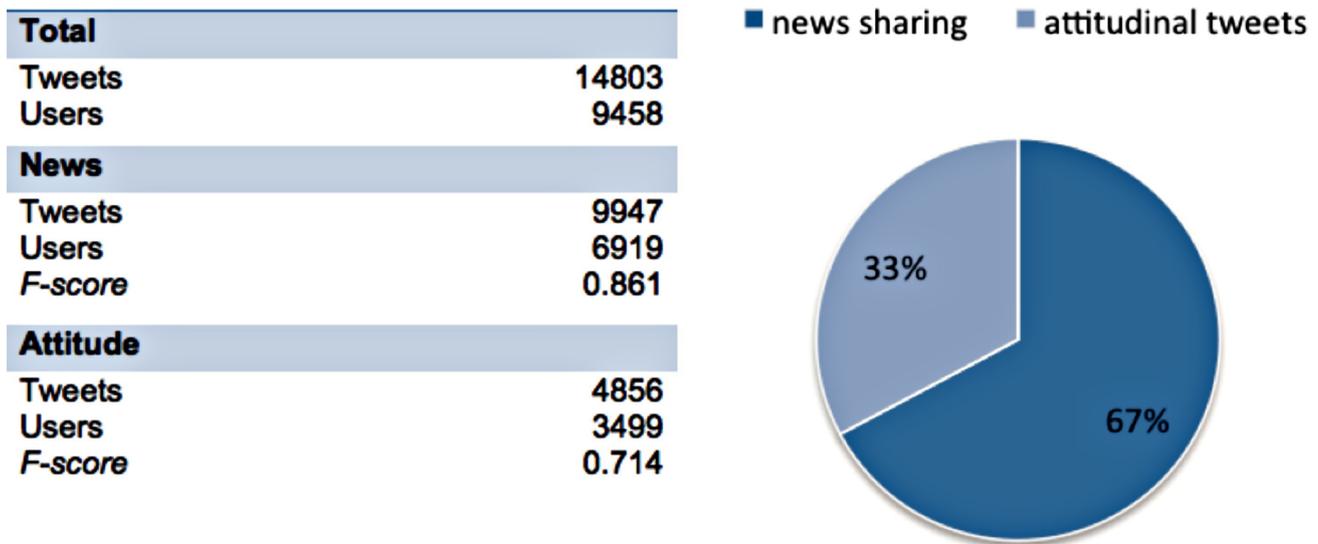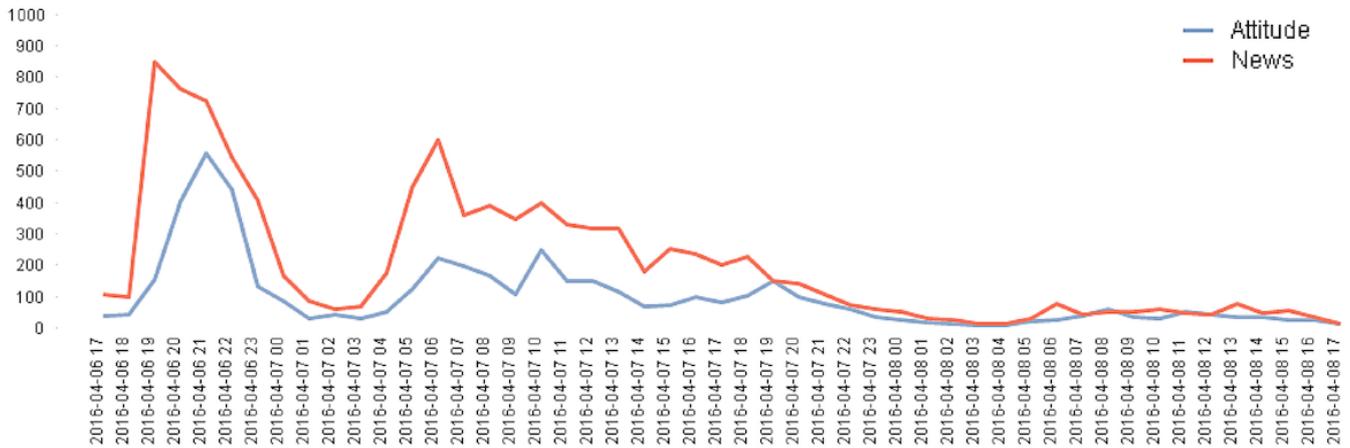■ news sharing   ■ attitudinal tweets

33%   67%

Figure 2

Figure 3

As the figures show, the vast majority (67%) of Twitter traffic following the Dutch referendum consisted of news sharing. While the most shared articles immediately after the vote were news articles focusing on the announcement of the outcome of the referendum, in the following hours many users began to tweet journalists' opinion pieces reflecting on the consequences of the "no".

By reading the 50 most shared articles, we can clearly identify three streams of news: 1) articles outlining the Eurosceptic nature of the vote, and relating it to the Brexit referendum; 2) articles focusing on the effects of the "no" on the Ukranian democratization process (further suggesting that the only winner of the referendum would be Russia); 3) articles focusing on the consequences of the vote for the future of the Association Agreement—often expressing concerns about the extent to which the Dutch vote will actually be taken into account by the EU.

Examining attitude

Moving to attitudinal tweets, we applied a [Latent Dirichlet Allocation](#) model to identify the different thematic clusters present in our dataset. Results confirm the existence of the three main discourses outlined above: 1) a pro-yes and anti-Putin discourse, criticizing the results of the referendum, the low turnout, and the Dutch for their "lack of solidarity"; 2) a first Eurosceptic discourse, focusing on the "undemocratic" character of the EU; 3) a second Eurosceptic discourse congratulating the Dutch and calling for Brexit.

To understand the relative dimension of the third discourse, we ran corpus analytics on our set of attitudinal tweets so as to identify the most frequently used keywords. Interesting enough, the word Brexit is in the seventh position, appearing 1,019 times (out of a total of 4856 attitudinal tweets).

Word	Frequency
eu	5237
ukraine	3124
dutch	2865
referendum	1659
dutchreferendum	1389
deal	1314
brexit	1019
against	743
vote	700

This confirms the existence of a strong connection between the Dutch vote result and the theme of Brexit within the Twittersphere, where the majority of users were cheering to the referendum outcome and calling for Brexit.

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