Visualizing fakenews as reported by euvsdisinfo.eu

Jesper Henrichsen Supervised by: Pedro Ferreira

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1 Introduction

Since the introduction of the internet, information has been able to reach further and faster than ever before. Recent developments of omnipresent social media has created the perfect platform for the spread of this information within the internet. For the sake of advertisement social media platforms has, since their introduction, only become better at targeting their audience with information that will capture their attention. As put by the team behind the newsfeed at Facebook: "The goal of News Feed is to deliver the right content to the right people at the right time (...)". However, a relevant question would be to whom it is implied to be right for.

That it is not necessarily the user, has recently emerged as a likely answer.

Because of the nature of social media, it has proved an effective way to spread misinformation. This report will describe the process of scraping and visualizing information from euvsdisinfo.eu.

2 Background

Since 2015 the campaign euvsdisinfo.eu, has been run by the European External Action Service East Stratcom Task Force. The primary focus of the campaign is to identify and debunk pro-Kremlin disinformation. According to the The campaign enlists cases of debunked information from sources spanning from official news sites to twitter accounts, to non-online content such as interviews. The campaign included more than 3400 such cases that became part of the dataset this report is based on. The cases are all reported either by the campaign staff themselves, or one of the 400 collaborating organizations and individuals. In ?? is seen how cases are listed on the website, the order of which is chronological with respect to the date it was reported.

Figure 1: Example listing of disinformation cases on ${\tt euvsdisinfo.eu}$

02.11.2017	Brussels are closing the door they opened with visa freedom for Georgians	Rezonansi	Europe, Georgia
02.11.2017	EU wants to ban information about the of country of origin on the food labels	Vlastenecké Noviny, eOdborar.cz	Italy, EU
02.11.2017	The West supported the terrorists during hostage crisis in Dubrovka in Moscow ("Nord-Ost attack") in 2002 and in the school of Beslan, North Ossetia, in 2004	Vremya pokazhet @Pervyi kanal, 19:15	Russia, The West
02.11.2017	The US destroyed the European values and culture, so now Russia is the only flagship of the European civilization	Vremya pokazhet @Pervyi kanal' TV-channel, 41:08	Europe, US
01.11.2017	The EU teaches journalists how to properly inform about Islam and migrants	ac24.cz	Ireland, Italy, Austria, Slovenia, Hungary, Greece, EU, Germany, Spain
31.10.2017	Finland wants Russia to join the European Centre of Excellence for Countering Hybrid Threats	Sergei Lavrov, Russian Foreign Ministry's website	Russia, Finland
31.10.2017	The West, primarily the United States, is collecting biological material in Russia to create a biological weapon that destroys the Russians.	Mesto vstrechi @NTV TV- channel, 1:12:48	Russia, The West, US
31.10.2017	Czech MP prefers there were 5 million Muslim migrants in Czech Republic rather than 5 million voters of Czech president Miloš Zeman	BezPolitickeKorektnosti	Czech Republic
31.10.2017	Estonia has opened a new military base in the town of Tapa under the pretext of fear of a Russian attack.	cz.Sputniknews	Russia, Baltic states, Estonia
31.10.2017	US is using sanctions in trying to push Russia out of the European energy and arms market	cz.sputniknews	Europe, Russia, US

Figure 2: An example of the information for each case

EU wants to ban information about the of country of origin on the food labels

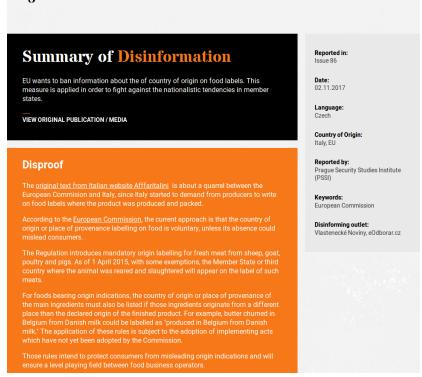
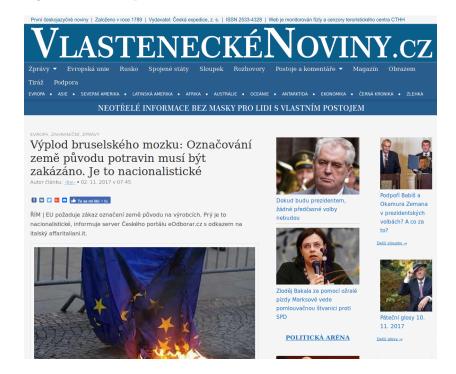


Figure 3: An example of a debunked news article from a Czech website



3 Acquiring information

In this section, the approach to acquiring and extracting information for the visualization will be described.

3.1 Article scraping and content extraction

A general approach to extracting content is difficult because source of information can be any sort of media, whether digital or physical, in writing or a video. And because each website is different, then even building a scraper to extract the content of the subset that are online articles, will be difficult. Furthermore, in order to consider the names of locations that are being mentioned in the articles, the entire content is not necessary. For this reason I chose to use the meta tags to extract information about the content, summary, titles and descriptions. I would also filter on html tags such as the header tags, h1, h2, h3, h4, h5, h6 as well as the title tag used for setting the window title. I found through experiment that only considering the first found header tag worked best, the reason is that other header tags than the first one would often be titles of other news articles that the news site wants the user to click on.

The meta tag proved to be a very reliable way, since most news sites are interested in their content being shared, so its almost a must, in order to get

content shared on social media.

In order to avoid duplicating content as much as possible I compared the content of a meta tag or html tag to the content that was already found in previous html tags. This approach resulted most often in a short paragraph of information about the article, including keywords, title and summary. Before applying the approach to the articles scraped from euvsdisinfo.eu, it was tested on sampled articles, such as danish news outlets. It was also tried on a sample of articles taken from the subreddits: r/politics, r/news, and r/worldnews, because these were good collections of all different news articles and news outlets. The results was used to evaluate qualitatively on the smaller sample. None of which turned out to have no content, and only one resulted in an extract only consisting of keywords. However, interestingly among the keywords were also the name of the country that the news story revolved around. One thing that was clear from this however, was that locations were not always mentioned if the news revolved around well known state leaders such as Putin, Merkel or Trump. In such cases, only the names of the state leaders were present as indication of what countries were mentioned in the articles.

3.2 Named entity recognition

Named entity recognition is a research field within natural language processing concerned with recognizing names of things such as people, company names, or, as relevant for this project, locations. The study of recognizing location names within texts is one of the most studied ares of named entity recognition, however, still an ongoing research. A more in depth explanation of named entity recognition or even natural language processing, is however, beyond the scope of this project. Instead for the purposes of this project, I will rely on existing tools.

- 4 Results
- 5 Discussion
- 6 Conclusion