Showing Bots Who Spread Fake News

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Fake news is becoming more common, especially in the political realm. An Oxford University study found that a quarter of the political stories shared on Twitter were based on misinformation. It is estimated that between 15% and 31% of Twitter users are automated algorithms, or bots. When comparing the automated accounts tweeting for Trump versus those messaging for Clinton, it appears that the pro-Trump tweets out-numbered pro-Clinton tweets 5 to 1 during the pre-election period. This can tell us something about the political agenda of the bots.

In our project, we initially wanted to focus on a specific twitter handle that tweets fake news. We'd take a tweet with a generous amount of retweets and visualize the network by identifying and highlighting relevant personalities, especially those with higher numbers of followers. Next, we wanted to plot the location of the retweeters on a geolocation map to see the reach of the news. This would allow us to identify locations on the maps where the fake news is retweeted more.

We encountered some issues with this initial plan. First, it was difficult to find a list of twitter handles that tweet fake news because they were already deactivated. Also, not everyone's location was available, or the locations were too inconsistent to plot.

We reshaped our project to research and show how big is the role of automated bots in spreading fake news. It was named is @fakeNewsViral. The bot analyzes the text and finds all tweets containing this headline. It then sorts out which of the users who shared the tweet are bots or humans using the BotorNot

API. Next it determines the reach of the fake news by both bots and humans based on the number of followers each user has. The output is a tweet that contains two graphs illustrating each count.

We pinned a tweet with the manual. It tells people to tweet us the headline of a recent fake news article. An example tweet would look like,

"@fakeNewsViral analyze news with text | Two People Connected to Flint Water Investigation Found Dead"

Again, there were still some difficulties we encountered. One thing is that if someone tweets at our bot more than once, it can get overwhelmed and the responses might not be in the correct order. Next, as of right now, our bot will respond to any article even if it's not fake. It is up to Twitter users to use it for fake news. The last issue is transparency. Since we determined that the bot or not percentages were not always accurate, that means our counts could be off. It is important that we tell our users that there is uncertainty about the BotorNot classification.

Although we hope to be able to use the bot for only fake news in future, a good point was brought up that could use our bot the way it is. It can have even more journalistic value to journalists who want to see how their news articles are being spread. Since social media is becoming more dominant in journalism because of the way users are consuming news, journalists can use our counts to improve their means of reaching their audience.

To develop our project we had a couple of meetings face to face with each other and we quickly divided contributions so that we can move forward efficiently. All three of us contributed to shape our initial idea and rethink the project when it faced major challenges. While Shashank took care of most of the coding and shaped our presentation, Karlis contributed with initial project proposal and provided ideas how our bot could do more and look even better. Arielle contributed for our administrative project such as

report writing, presentation. Karlis and Arielle researched fake news links for our bot to explore. Together we made a good team. To work even better I would suggest mandatory hackathons where group member could spend even more time working together on a project.