CSE 5334 Project Proposal

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Topic

This project will build a classifier to detect specific media bias, and find the probability that a given piece of written news is by, or influenced by, Chinese state-sponsored media. This project extends on research I began in CSE 5360 during fall 2020, where I was able to gather data but lacked the knowledge and skills to build and train an actual classifier-- skills that I have now after CSE 5334.

- Original project report: https://github.com/1040mxg/CSE-5360/blob/master/CSE_5360_Project_Report.pdf

Motivation

This project seeks to create a classifier that could detect misinformation and propaganda, geared specifically towards older members of the Chinese diaspora. A prevalent issue among mainland Chinese diaspora is the spread of sensationalist "fake news" and propaganda through various websites and popular messaging apps. These news sources are essential parts of life and often the only source of news for older Chinese immigrants, but strict guidelines set forth by the ruling Chinese government ("CCP") authority restricts what topics may be covered and how, so as to hide calls for reform or exposure of human rights abuses that may subvert government authority. For these reasons, there is a general distrust among Chinese diaspora of state-sanctioned media such as Xinhua or People's Daily, but very rarely does this same caution extend to English-language sources. TThis creates the issue that I seek to address: English-language versions of major CCP media exist, both branded and unbranded. I seek to create a classifier that can detect possible state media influence on unbranded (ie. not connected to any large or known news source) English-language articles, by seeing how similar the unknown text is to the writing styles of CCP-sanction media. In this way, the hope is that effects of CCP propaganda on overseas diaspora can be highlighted and reduced.

Existing Work

- KnowBias: http://www.knowbias.ml/knowbias
    - Training and inference method for detecting (American) political bias in long-form text.
- Linguistic Fingerprints of Internet Censorship: the Case of SinaWeibo: https://arxiv.org/abs/2001.08845
    - Predictive classifier for censorship on Chinese-language social media site Weibo.
- Signature: http://www.philocomp.net/texts/signature.htm

    Freeware designed by Dr. Peter Millican of Oxford University that evaluates word lists using stylometric methods, various chi-square analysis, and other

Dataset

All data used for this project was collected personally by me throughout December of 2020 and can be found here: https://github.com/1040mxg/5334project/tree/main/data

The data covers the topics of Hong Kong, Taiwan, and Xinjiang. Tweets were scraped using snscrape from the official Twitter accounts of NPR News and Xinhua News Agency. In total, about 6,000 to 7,000 tweets were collected from Xinhua, and a little under 1,000 from NPR on the topics. I also used ParseHub to scrape headlines from the official Xinhua website and got about 20 pages of headlines totalling over 110,000 words.

- NPR Twitter: https://twitter.com/NPR
- Xinhua Twitter: https://twitter.com/XHNews
- snscrape: https://github.com/JustAnotherArchivist/snscrape
- ParseHub: https://www.parsehub.com/

Features

In full, completed web app form, the following features will be supported:

- Text upload as CSV, txt, and copy/paste.
- Text analysis with probability that it has CCP influence