Fake News?

Fact-Checking Individual Statements With Web Scraping and Sentiment Analysis

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July 24, 2022

1 Introduction

The spread of misinformation may be one of the biggest societal problems, exacerbated by the popularity social media. Today, anyone can log into their computer and write something that the entire world can see. While the malicious spread of misinformation is often seen in regards to politics, it's not exclusive to it. Though anyone with a computer can also access a search engine and, usually with relative ease, tell if a statement is false based on the results, it's rare that a person will take the time out of their day to do so, and as such may continue to spread the false statement.

With a machine learning algorithm that takes a statement (ex. a blue whale can weigh up to 200 tons) and classifies the statement as either true or false, the user doesn't have to take any time to Google it on their own. With this easy-to-use feature implemented in websites such as Twitter, Facebook, or Reddit, misinformation will be easily clocked and therefore is unlikely to "go viral" and spread to more users.

Though machine learning has been used before for fact-checking and determining the credibility of a claim, most of its application has been in analyzing either full-length articles using context clues and sources or on subjective statements that were trained on sentiment analysis to use common sense. Obtaining truth values of objective statements has not been previously attempted in the public sphere (i.e. outside of scientific claims [1] or as a part of a broader algorithm [2]).

With this proposed model, the truth values of objective statements will be readily available to the masses who may have otherwise just taken whatever they read online at face value.

2 Literature Review

3 Data

References

[1] David Wadden, Shanchuan Lin, Kyle Lo, Lucy Lu Wang, Madeleine van Zuylen, Arman Cohan, and Hannaneh Hajishirzi. Fact or fiction: Verifying scientific claims, 2020. URL `https://arxiv.org/abs/2004.14974`.

[2] Eric Lazarski, Mahmood Al-Khassaweneh, and Cynthia Howard. Using nlp for fact checking: A survey. *Designs*, 5(3), 2021. ISSN 2411-9660. doi: 10.3390/designs5030042. URL `https://www.mdpi.com/2411-9660/5/3/42`.