Editing out fake news

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Fake news and misinformation have become commonplace in the political, economic, climatic, and social arenas in recent years and are amplified significantly by social media with important repercussions for political outcomes and our quality of life. As we continue to face the global COVID-19 pandemic, fake news and misinformation in this realm

becomes a matter of life and death. Researchers from the U.S. and China writing in the *International Journal of Data Science* discuss a new approach to detected false headlines.

Xin Wang and Peng Zhao of the Big Data and AI Lab at IntelligentRabbit LLC, in New Jersey and Xi Chen of the Beijing University of Civil Engineering and Architecture have developed an algorithm-based ranking method for mainstream media credibility and tested long short-term memory (LSTM), convolutional neural network (CNN) and Deep belief networks (DBNs) to this end. They suggest that it is vital that we address this problem.

"In the age of social media, the ability to spread false information has increased exponentially," the team writes. "Irresponsible organisations and individuals published misleading information causing catastrophic consequences to society."

The researchers point out that while technology may have fostered the rapid spread of fake news in an unprecedented way, technology is in many ways the only means by which fake news can be tackled effectively. As such, the team has developed an algorithm based on the neural network approach performs with up to 94 percent accuracy and outstrips other approaches. This is critical given that it is difficult to retrieve whole documents reporting fake news especially as they are commonly camouflaged among genuine news content.

The team explains that many news organisations have established fact-checking units or recruited independent teams to manually scour their user output to identify fake news and false claims. There are also well-known services, such as Snopes, PolitiFact, and FactCheck that act as third-party factcheckers for content being shared online. A system that can work ahead of such checking and automatically flag fake news for subsequent manually checking could help guarantee the trustworthiness

of a news source and label problem material.

The team adds that they will next develop a decentralised machine learning model that will guarantee the transparent and traceable delivery of news and take us a step closer to ending the era of fake news.