

AI IN CURBING SPREAD OF MISINFORMATION

Abstract

According to Nilsen, there are a number of communication channels that can reduce the availability of meaningful choice. If a corporation gives stakeholders erroneous or biased information, its decision-making process may be compromised. Prejudice, ambiguity, and emotionally charged language are some communication strategies that may distort meaning or instil unjustified fear in the listener. Public relations experts must use ethical communication techniques built on the ideas of openness and transparency. Artificial intelligence (AI) has become a potent weapon in the fight against the ever-increasing threat of the "infodemic." AI tools can recognise bogus videos, spot fake news, and use chatbots to spread accurate information. Information spreads quickly in the digital era, but false information spreads like wildfire. The ease of communication has made it possible for fake news to spread quickly, and the situation has spread to the point that it resembles an infodemic or a pandemic of information. False information travels considerably more quickly than the truth and reaches a larger audience. In other words, on Twitter and perhaps other social media sites, bogus news outweighs the truth. Furthermore, it is difficult and time-consuming to actively separate bogus news from legitimate news. The procedure may be approached using a few machine learning (ML) classification approaches, however consistently training entire models requires a significant amount of time. It is possible to divide the process of telling fake news from true news into smaller phases, and by automating these processes, the work becomes easier to understand. When disinformation is spread through video, the issue is magnified since it is so convincing and convincingly real that even the most intelligent and sceptical minds can be duped. These artificial intelligence-generated movies of actual individuals acting and speaking false things are referred to as deep fakes. Like many other modern issues, the solution to the rumour-mongering issue is found in artificial intelligence. Here are some of our better examples of how AI can help stop the spread of incorrect information.

Keywords: Artificial Intelligence, Machine learning, Fake news, chatbots.

Authors

B Ramadasu

Assistant Professor
Department of Computer Science & Engineering
Chaitanya Bharathi Institute of Hyderabad
Hyderabad, India
bramadasu_cse@cbit.ac.in.

K Kiran Prakash

Assistant Professor
Department of Computer Science & Engineering
Chaitanya Bharathi Institute of Hyderabad
India
kiranprakash_cse@cbit.ac.in

Dr. G.N.R. Prasad

Sr. Assistant Professor
Department of Master of Computer
Application
Chaitanya Bharathi Institute of Hyderabad
Hyderabad, India
gnrp@cbit.ac.in

I. INTRODUCTION

False information, false news, and propaganda have the power to polarise public opinion, encourage hate speech and violent extremism, and ultimately weaken democracies and public confidence in democratic processes. The following is considered to be miscommunication that can lead to problematic consequences. Inaccurate or incomplete statistical units; insufficiently specified or biased information; vague or unclear wording that leads listeners to infer incorrect interpretations. False senses of significance or urgency; Highly emotive language that may skew meaning; Relationships that may be indicated between the topic under discussion and other topics when none exist; In times of crisis, disclosure of timely, relevant, and complete information is particularly important when lack of information can be particularly harmful. In many cases, crisis communicators must perform the dual role of organizational spokesperson and counsellor. In both instances, stakeholders' informational needs and interests must be considered. Making the incorrect decision might result in death. According to recent study, there were around 6000 hospital admissions worldwide in the first three months of 2020 as a result of false information about the coronavirus. At least 800 people may have passed away at this time owing to COVID-19 misinformation, according to experts. The World Health Organization has coined the term "infodemic," which refers to an excess of information — some true, some not — that spreads along with a disease epidemic, and at its worst, can tragically result in death. False information covers a wide range, from debunking the COVID-19 danger to spreading rumours that vaccinations might change people's DNA. Though not new, infodemics are on the rise in our digital age. They foster a climate of uncertainty. Uncertainty breeds scepticism and mistrust, which in turn creates the ideal conditions for dread, anxiety, stigma, violent aggression, and the denial of effective public health interventions, all of which can result in fatalities.

In an effort to contain the COVID-19 infodemic, WHO has partnered with the government of the United Kingdom to produce and disseminate materials to stop the spread of false information through a number of communication activities. Since the beginning of the COVID-19 epidemic, WHO has launched a number of activities to address disinformation, both independently and in collaboration with partners.

II. DETECTING FAKE NEWS

'Stop the Spread' launched in May and June 2020 on BBC World television, the website, and apps. It sought to prevent the harm and spread of inaccurate information by increasing public awareness of the amount of disinformation around COVID-19 and enticing individuals to carefully verify facts.

Two years into the epidemic, vaccinations are being distributed, and information about them is widely available, some of it trustworthy and some of it not. "Public trust in science and evidence is essential for overcoming COVID-19," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "Therefore, finding solutions to the infodemic is as vital for saving lives from COVID-19 as public health measures, like mask-wearing and hand hygiene, to equitable access to vaccines, treatments and diagnostics." Worldwide, low vaccination acceptance rates are of concern. Only 63% of respondents in

23 nations, according to data published in January 2021 by the Johns Hopkins Centre for Communication Programs**, said they would accept a vaccination.

For a population to achieve "herd immunity," or the point where enough of the community has been immunised against COVID-19 to make future transmission unlikely, public health experts propose a minimum estimate of 75 percent.

The statistics indicate that while a sizable section of the public is eager to have the vaccination immediately and a much smaller portion is passionately opposed to receiving a shot, there is a sizable intermediate portion who are unsure and may be persuaded to receive the vaccine. Other UK Government-WHO joint initiatives have used a variety of social media infographics and messaging across platforms to illustrate the safety of COVID-19 vaccinations in an effort to increase participants' motivation. The resources spread encouraging messages in response to false worries about the rapidity with which vaccines have been created, stressing that this is in part because of the record levels of financing, global volunteerism, scientific collaboration, and capacity to ensure vaccine safety. The WHO's Strategic Advisory Group of Experts on Immunization (SAGE) will make vaccine-specific policy recommendations once vaccines have been approved via the regulatory process, which includes the evaluation of safety and efficacy from phase III clinical studies.

Can AI determine whether a piece of content was created by a computer or a human? Yes, it can — up to a certain accuracy. Techniques analyzing linguistic cues such as word patterns, syntax construction, readability features etc. can differentiate between human and computer-produced text. Similar feature-based methods can also be used to separate synthetic images from real photographs.

- 1. Artificial Intelligence: protection from "false news"?:** AI technology may be used to spread false information, but it can also be used to counter it. It may be used to detect and get rid of false information. In reality, over the past several years, AI has successfully been able to discern between human and machine-generated material by recognising patterns using a variety of algorithms. These algorithms were developed by feeding them pre-written pieces from various fake news sites that also included references and sets of real data. The ability to classify stances is another feature of some AI-powered analytical tools that may be used to identify whether or not a headline and article body are compatible. By digesting the text and analysing the writing style, this is accomplished.
- 2. AI that blocks deepfakes:** Can we use fire to fight fire? Could ML and AI be used to identify these "fake" films if they are being used to make deepfakes? Several specialists are relying on this. Deepfake detection research has been prompted by worries that computer-generated movies may potentially sway elections, target specific companies, or cause riots. Many are concerned that deepfakes might be the next instrument to be "weaponized" in the in many country elections. No one is safe from deepfakes; they may potentially have fatal effects on the CEO of a company, the head of state, or even the average person.
- 3. Deepfake video detection competition on Facebook results in 65% accuracy:** Facebook began its 6-month Deepfake Detection Challenge (DFDC) in December

2018 in collaboration with business titans and academic institutions. The open initiative's goal was to foster innovation in autonomous algorithmic detection systems to spot and eliminate the deepfake video danger as it emerged. Deepfake films are artificial intelligence-generated depictions of actual events and people that are very convincing and may be used in misinformation efforts. Facebook invested roughly \$10 million on producing phone-shot, authentic-appearing films that would typically be available on social networks, establishing a dataset of thousands of movies for research into Deepfakes. The social media platform employed more than 3,500 performers to create films in an amateurish style, representing a variety of origins, races, ages, genders, and more.

- 4. Google releases datasets to prevent deep fake abuse:** Google and Jigsaw today announced the release of a sizable collection of visual deep fakes to address the pervasive exploitation of deep fakes. The new FaceForensics benchmark developed by the Technical University of Munich and the University Federico II of Naples uses these Google-produced datasets. The research community may now use these datasets to create artificial video detection techniques.

III. CONCLUSION

When it comes to fighting the epidemic, artificial intelligence is ready to play a significant role. The real-time command and communication systems, as well as intelligent healthcare chatbots. Experts believe that AI may be best used as a viable defence during the crisis' quick escalation. These technologies are currently being used by all the best hospitals in the world to stop this specific outbreak. Tan Tock Seng Hospital and National University Hospital of Singapore are two examples of this. AI is being employed at both of these institutions to provide doctors and other healthcare professionals with the most recent information regarding the epidemic nearly immediately after it occurs. AI tools can recognise bogus videos, spot fake news, and use chatbots to spread accurate information. Information spreads quickly in the digital era, but false information spreads like wildfire. The ease of communication has made it possible for fake news to spread quickly, and the situation has spread to the point that it resembles an infodemic or a pandemic of information. False information travels considerably more quickly than the truth and reaches a larger audience.

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