Chapter 4
Disinformation Through AI

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ABSTRACT

The rise of artificial intelligence (AI) has amplified spreading falsified, misleading information, and the difficulty to detect manipulated content, warranting the need to identify determinants of user susceptibility toward mis-and-disinformation from AI in the public health contexts. Adopting a three-stage dual processes theory, this chapter proposed a conceptual model that explains user susceptibility toward mis-and-disinformation from AI as the results of courtesy type 2 processing. From the individual-level, individuals who reflect higher trust in AI, AI literacy, analytical mindset, bullshit receptivity, and prior experience with AI are more vulnerable to AI mis-and-disinformation. From the AI-level, people are more susceptible to mis-and-disinformation from AI with higher automation levels and if the content produced is aligned with people's prior knowledge. From the contextual-level, people are more susceptible to disinformation from AI if they are more pressed for time and overloaded

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with extra information. Practical, legal, and ethical implications were discussed.

INTRODUCTION

Following the widespread use of the internet which enables great exposure and accessibility of information, deceptive, falsified, inaccurate and misleading information has also been accumulated in massive amounts. The consequences of the spread of this deceptive, falsified information either with or without malicious intention (i.e., misinformation and disinformation respectively) range in severity and scale across various contexts. Politically, foreign actors have been deploying information operations to manipulate the formation of public opinion, discredit political leadership, degrade public trust, deepen societal divides, and influence citizens' voting decisions (Kertysova, 2018). Also, mis-and-disinformation on science, technology, engineering and maths related topics such as vaccine resistance and climate change have also encountered political repercussions (Curiel & Ramirez, 2021; Sylvester, 2021). Worryingly, an Ipsos (2020) poll showed that over 83 percent of people are very concerned about the spread of mis-and-disinformation, with about 69 percent of people believing that the information encountered on social media is inaccurate. Regardless, it is remarkable that the spread of misinformation and disinformation always comes hand in hand with the acceleration and adoption of technology (Naja, 2018).

How AI Alters the Spread of Mis-and-Disinformation?

To date, artificial intelligence (AI) is affecting people's life tremendously due to its highly prevalence in various industries and education fields. While AI acts as a popular tool in simplifying workflow, generating solutions, and elevating productivity, its convenience comes at the cost of vague transparency, limited accountability, and systematic discrimination (Möller et al., 2018). These in turn contribute to the amplification of mis-and-disinformation. As Gordon Crovits, the co-chief executive of NewsGuard, an organisation that tracks online misinformation once made a comment about AI:

This tool is going to be the most powerful tool in spreading misinformation that has never been on the internet. Crafting a new false narrative can now be done at dramatic scale, and much more frequently — it's like having AI agents contributing to disinformation. (Thompson & Tsu, 2023)

Indeed, the rise of AI has altered how misinformation and disinformation is spread in at least two ways. First, advancements in machine learning enable AI to identify individual's unique attributes, weaknesses, and needs, in which highly personalised,