Investigating the Impact of Misinformation Sources on Health Issues: Implications for Public Health

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Abstract. The aim of this work is to shortly provide the public with an overview about fake news and artificial intelligence (AI) technology. Especially in our days, where there is a high speed of spreading news, the impact of fake news on public health is crucial and the development of valid and effective means of technology to support the provision of safe and trustworthy information about public health issues is vital. The role of informatics in health area is profoundly important and AI in public health, so people will be able to distinguish the genuine information from the fake one.

Keywords. Fake news, Misinformation, Public Health, Artificial Intelligence

1. Introduction

Since the early stages of internet and even more later through Social Media, another "epidemic" or "pandemic" appeared the word "Infodemic", consisted by words information and epidemic, which means "epidemic of information" [1]. According to UNESCO's definition, misinformation/disinformation is the false information that is spread under the guise of news. The term "misinformation" refers to information that is false, but not created with the purpose of harming someone, while the term "disinformation" refers to information that is false and intentionally created to harm a person, company or country [2]. Furthermore, misinformation can be also due to an interpretation of true facts, like the case of COVID-19 [3].

2. Methods

The Internet, Social Media, Social Networks, and technology have a strong influence on health decisions. There are cases that help spread rumors, misinformation, or even more they can undermine public health policies. Given the lack of knowledge about the use of social media for health, there is a need for complex interdisciplinary tools, methods, and guidelines to help public to understand how to use social networks and other sources on

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Public Health issues. Education and knowledge, a better understanding of social media, and the recognition of various sources of misinformation will give health authorities new tools to help make decisions at global, national, local, and corporate levels.

3. Results

The role of technology and informatics in health area is profoundly important supporting a wide range of healthcare products including medical devices, information technology, like EHR, medical imagining, life support systems, and many more [4]. AI systems affect broadly daily human life at all society levels. AI is growing rapidly and tremendously, worldwide and healthcare area has been affected by in early stages of AI. The use of AI systems in Health Care has great potentialities that might change the daily practice and even change the basic definitions in the health context [5]. Effective AI methods to detect or prevent misinformation could be tools like machine learning, deep learning, chatbots, interactive mobile applications, apps, social media communities against the phenomenon [6].

4. Discussion and Conclusions

The behavior of social media users and how they spread health information has already presented in various studies [7]. In addition to that, the role of "fake news" on public health issues has been recognized as catastrophic globally [8]. The role of modern Public Health specialists should be to reduce "fake news" and repeal the disastrous side effects. AI technology appeared to be a useful means of defense. Tools, like chatbots, apps, can evaluate the quality of information. Furthermore, AI technology supports the personalized medicine for those searching for health information or even to support patients with personalized clinical advice, treatment, pharmacological, or even surgical support. AI systems can be trained continuously with fake information, malicious data, and many more untrusted data [9].

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