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THE SOCIAL IMPACTS OF ARTIFICIAL INTELLIGENCE

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Abstract: Artificial intelligence (AI) has been rapidly integrating into diverse areas such as healthcare, transportation and education, bringing advantages but also raising significant ethical questions. This integrative literature review discusses the ethical implications of AI, highlighting concerns such as algorithmic bias, transparency, privacy, accountability and fairness. The popularization of AI, driven by the launch of ChatGPT in 2022, highlights the need for further research and regulation. In addition, AI-induced social changes transform the labor market, social interactions and the global economy, requiring adequate public policies to mitigate negative impacts and promote equitable benefits.

Keywords: Artificial Intelligence, Ethics, Algorithmic Bias, Transparency, Public Policy

INTRODUCTION

Artificial intelligence (AI) has been rapidly integrated into various spheres of everyday life, from health and transportation to education and entertainment. In this sense, it is essential to warn about the social impacts of AI and emphasize the need to address them seriously [20].

The popularization of AI, driven by the launch of ChatGPT in November 2022 [12], has brought to light many possibilities and challenges related to the use of this technology. However, due to its recent adoption, there is still much to be researched and discovered about its implications. It is crucial that developers, legislators and society as a whole work together to better understand these issues and mitigate negative consequences.

OBJECTIVES

This study aimed to point out some of the positive and negative social impacts of the use of artificial intelligence (AI) and highlight the need for ethical discussions and the implementation of public policies to mitigate possible negative and exclusionary consequences. It sought to warn of the challenges that arise with the rapid integration of AI into spheres of everyday life. In addition, the study aims to highlight the potential of AI to become an inclusive agent and generator of incredible benefits.

MATERIALS AND METHODS

We used Integrative Review, a methodology that examines the scientific literature on the subject, mapping knowledge and identifying gaps to direct future research [1]. The eligibility criteria included articles and books published between 2011 and 2024, with an emphasis on social issues relating to digital automation and/or artificial intelligence. The databases consulted included JSTOR, Scopus, *Web of Science* and Google Scholar, considering publications in Portuguese and English. The search was based on the following keywords: "AI", "*artificial intelligence*" and "social impact", "*social impact*", using the Boolean operator "AND", namely:

- ia AND social impact | artificial intelligence AND social impact | *ai* AND *social impact* | *artificial intelligence* AND *social impact*

DISCUSSION OF THE IMPACTS OF AI ON SOCIETY

a. Ethical implications

Despite the advantages, the growing implementation of AI raises ethical issues that need to be addressed to ensure its responsible use. Overall, the rise of AI requires responsible and ethical development, ongoing research and collaboration to address these multifaceted challenges and fully harness its potential for societal benefits [21].

AI algorithms trained on large data sets can reproduce and amplify social inequalities and the gap between rich and poor [3]. The concentration of technological resources in a

few companies and countries can exacerbate global and local inequalities [8]. In this context, transparency is key to properly monitoring and controlling AI systems, allowing for an ethical evaluation of decisions [9].

The massive collection and analysis of personal data by AI systems can result in breaches of privacy, often without the consent of the individuals affected, typically promoted by surveillance capitalism [16], which claims the human experience as free raw material for hidden commercial practices of extraction, prediction and sale. In this way, robust data protection policies, such as the European Union's General Data Protection Regulation (*GDPR*), are fundamental to protecting the rights of individuals [10].

Another aspect is determining who is legally responsible when an automated decision harms someone. This is a complex issue due to the autonomous and unpredictable nature of these technologies [15]. The absence of a recognized authority hinders the effectiveness of international AI governance. New international organizations are emerging, but without having complete operational control over AI advances [12, 14]. Initiatives such as the Global Partnership on AI (*GPAI*) exemplify international efforts to promote ethical and responsible AI governance [13, 14].

b. AI-induced social change

One of the areas most affected by AI is the labor market, especially in relation to the possibility of large-scale automation. The second machine age is displacing job positions and increasing inequality, even as productivity and prosperity increase. This requires retraining workers and creating new educational opportunities so that the workforce can adapt to technological changes [5].

AI has also transformed social interactions. Personalized filters can lead to the phenomenon of filter bubbles, where users are only exposed to information that reinforces their pre-existing beliefs. This can result in social polarization and segmentation, making dialogue between different social groups difficult [17].

Another important aspect is the influence of AI on the global economy. The ability to process large volumes of data and optimize processes is revolutionizing sectors such as manufacturing, logistics and financial services, while redistributing economic power and increasing the concentration of wealth. This concentration exacerbates existing inequalities, necessitating appropriate regulatory policies to mitigate its negative effects [2].

c. Public perception of AI

Understanding public perceptions is crucial for the ethical implementation of AI. The media plays a central role in shaping its public perception. Media coverage of AI tends to focus on extreme narratives, sometimes extolling the potential technological miracles and sometimes emphasizing doomsday scenarios. This duality can lead to a

There is a distorted public understanding, where the benefits are exaggerated and the risks are underestimated or vice versa [11]. This suggests that familiarity and exposure to AI can mitigate some fears and prejudices [6].

As for education, studies indicate that greater technological literacy among the population can lead to a more uniform and less polarized understanding of AI [18]. This highlights the importance of including AI topics in school curricula from now on, in order to deal with these technologies in a conscious and natural way. And effective public policies can help channel public perception towards a balanced view, recognizing both the opportunities and challenges presented by AI [5].

CONCLUSION

Artificial intelligence (AI) is rapidly integrating into everyday life, raising ethical and social questions that need to be addressed urgently. It is essential to ensure transparency in order to avoid amplifying existing social inequalities [3, 9]. Transformations in the labor market and social interactions bring challenges and opportunities, requiring retraining of workers and appropriate regulatory policies [5, 7]. Public perception of AI varies according to demographic and cultural factors, influenced by the media and political discourse [19, 11]. Robust public policies and international cooperation are essential to mitigate social impacts, ensure privacy and promote equity [4, 16, 10]. Thus, developers, legislators and society must work together to ensure that AI benefits the entire population, prioritizing transparency, accountability and fairness.

FINAL CONSIDERATIONS AND PROPOSALS FOR FUTURE RESEARCH

The creation of public policies that promote digital inclusion and accessibility to the benefits of AI are essential to ensure that everyone, regardless of their socio-economic position, has respect and equity. Undoubtedly, this issue will become the central theme of many future discussions.

As a result of the previous theme, other topics should also come to the fore, such as the Governance and Regulation of AI, the Psychological Impact of AI and AI and Sustainability. By directing research efforts towards these emerging areas, we can build a future where AI contributes positively to the development of society, respecting ethical principles and promoting social justice and environmental sustainability.

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