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INTELIGJENCA ARTIFICIALE NGA PERSPEKTIVA SOCIOLOGJIKE

ВЕШТАЧКА ИНТЕЛИГЕНЦИЈА ОД СОЦИОЛОШКА ПЕРСПЕКТИВА

ARTIFICIAL INTELLIGENCE BY SOCIOLOGICAL PERSPECTIVE

Abstract

The sociological perspective views Artificial Intelligence (AI) as a social phenomenon that surpasses humans. It was invented in the 21st century, where, with the help of technological tools, knowledge from various research-scientific fields is commercialized.

The sociological interest is to analyze the social nature, origin, and consequences of artificial intelligence across many fields of scientific research, including education, healthcare, economics, astronomy, etc.

The present paper aims to elaborate on the implications of artificial intelligence, social relationships, challenges, and consequences in society.

The research methodology will be based on reviewing scientific articles about the phenomenon in question, including conceptual issues of AI, approaches, and study analyses by experts in the field. It is planned to analyze around 20 papers published in internationally recognized scientific journals from 2020 to 2024.

The expected results will correspond with the performance of the data, the study of general knowledge as a comprehensive force of information, and at the same time as an easier achievement of learning in various fields of interest.

Keywords: *Artificial intelligence, sociology, social changes, education.*

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Introduction

Artificial Intelligence (AI), a term coined by Stanford professor John McCarthy at a conference in Dartmouth in 1955, was defined by him as "the science and engineering of making intelligent machines" (McCarthy, 2007).

Artificial Intelligence (AI) is a branch of computer science that enables computers to imitate human behavior to help people perform better in the fields of science and technology. Some of the specific goals of artificial intelligence according to sociological analyses are: problem identification, innovations, communication processes, automation of actions, etc.

Artificial intelligence is classified into two categories: "one specialized for a single task (such as virtual assistants, recommendation algorithms, or facial recognition systems), and general artificial intelligence which aims to imitate full human intelligence and learn independently across different fields" (Goertzel & Pennachin, 2007). According to the American Sociological Association (ASA), "the pandemic accelerated the presence of computers to the extent that technologies imitate human intelligence by emotionally transforming everyday life, masking structural inequalities, human labor supporting computer systems, and coded biases in software" (ASA, 2024, https://www.asanet.org/footnotes-article/work-and-transformational-technologies-not-so-artificial-intelligence).

According to the Encyclopaedia Britannica, "artificial intelligence (AI) is defined as: the ability of a digital computer or a computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is often used for the project of developing systems equipped with intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience" (Encyclopædia Britannica, n.d. 2025).

A similar definition is provided by the European Commission's High-Level Expert Group on Artificial Intelligence (AI HLEG): "Systems that exhibit intelligent behavior by analyzing their environment and taking actions with some degree of autonomy to achieve specific goals" (High-Level Expert Group on Artificial Intelligence, 2019).

While scientific power has managed to produce a human from a test tube (IVF, 1978) and clone sheep and humans (2002), Artificial Intelligence, centered on humans, aims to surpass human abilities by

addressing current societal needs and solving many problems. In this way, through installed applications, it is much easier to benefit from knowledge in fields of interest, carry out personal tasks, identify crime traces, protect and care for children and households during times when we are distant from them, etc.

If we refer historically to artificial intelligence, a famous quote from Ernest Hemingway's 1926 novel *The Sun Also Rises* is applicable to describe some of the deeper technological changes in the world: "One generation passes and another comes. Small advances accumulate and then suddenly, the world is a different place" (Hemingway, E. 1926).

Methodology

This study will focus on the use of scientific research methods based on investigating the phenomenon in question through literature. Data collection will be conducted by reviewing written texts that address the problem, including the analysis of scientific articles, books, academic journals, reports, and study materials from institutions and international organizations, as well as opinions from authors and researchers using well-supported facts related to the subject matter. Meanwhile, auxiliary methods will include content analysis, comparison, analysis, and synthesis. These methods will identify relevant sources on Artificial Intelligence by leveling and summarizing knowledge, comparing facts, and synthesizing findings, thereby ensuring a comprehensive result regarding current perspectives and explanations of the phenomenon in question.

Artificial Intelligence and Society

Since Artificial Intelligence (AI) aims to transform society, its impacts can be seen from both a positive and a negative perspective. From the positive perspective, "Artificial Intelligence is transforming the way societies function, bringing fundamental changes to the labor market, education, and healthcare" (Brynjolfsson & McAfee, 2014). Meanwhile, as AI "grows in power and autonomy, there is fear that the lack of clear regulations may lead to unforeseen consequences and even technological abuses with severe social impacts" (Bostrom, 2014), which relates to the negative perspective on society.

According to the world-renowned futurist Bernard Marr, the transformative impact of artificial intelligence on our society will have broad economic, legal, political, and regulatory implications that we need to discuss and prepare for. “Will machines become super-intelligent and will humans ultimately lose control? While there is debate about how likely this scenario is, we know that unforeseen consequences always arise when new technology is introduced” (Marr, 2024). Artificial intelligence poses a challenge in executing plans and tasks as programmed. Its ethical use will bring positive results; otherwise, if its limits are exceeded, it will cause destructive consequences.

According to other studies, the relationship between AI and society centers on Automation and Employment. Through AI technology, there is potential to improve access to services, information, and opportunities, increasing inclusion for marginalized communities. “In the medical field, AI is revolutionizing healthcare by enabling early disease detection, personalized treatment plans, and drug discovery. AI also facilitates remote monitoring and telemedicine, increasing access to healthcare services, especially in underserved areas” (Warr & Rather, 2024). Recently, information has circulated about the application of artificial wombs that will allow couples to select the traits of their child. “The so-called ‘Elite Package’ will allow genetically engineering the embryo before implantation in the artificial womb. Everything can be chosen - from eye and hair color to strength, height, and intelligence - and inherited genetic diseases can be avoided” (NewsBomb.al, 2022).

Artificial intelligence and family care include applications that serve for monitoring children and their location via GPS platforms. Apps like “Kids Security,” “Pumpic,” and “Tynker” offer possibilities for child monitoring and provide parental care assistance during work or professional engagements. Other applications that enable household and home services, known as “Home Service,” allow for the maintenance of appliances and household chores without the need to call a repair technician.

The impact on the community or local settlements is another horizon of Artificial Intelligence services. In this case, AI can identify the needs of community residents and maintain communication for initiatives to implement plans and investments in neighborhoods or local areas.

AI also has powerful impacts on the economy and labor market. Artificial intelligence is increasingly becoming a promoter of

productivity, rising unemployment, and widening the gap between the rich and the poor.

AI influences the cultural system of society as well, affecting cultural norms, social interactions, and perceptions of technology. Society should engage in open dialogue about AI's impact on culture, identity, and human relationships to foster understanding and address potential challenges (Warr & Rather, 2024).

Among the negative impacts of AI are violations of ethical principles regarding the right to privacy and the protection of personal data. AI, through programming tools, has the power to abuse individual identity; therefore, it is essential that strict laws protecting human rights be implemented at the state level. Other negative impacts of AI include the facilitation of cybercrime, terrorism, and more.

Artificial Intelligence, Education, and School

Artificial Intelligence (AI), communication through models like ChatGPT, and other technological applications for learning have become part of ongoing discussions among teachers, parents, and school staff. "Traditional learning from books or Google searches is now being supplemented by AI, which efficiently fills gaps in the knowledge required" (GCED Clearinghouse, 2023).

According to a report on the Artificial Intelligence market in the U.S. education sector, "the presence of AI in this field is expected to grow by 47.5% during the period 2017-2021. Although experts assess that the role of teachers remains irreplaceable, AI is expected to bring fundamental changes in work methods and best educational practices" (GCED Clearinghouse, 2023).

"AI enables improved efficiency in educational work by easing the completion of administrative tasks by teachers, while parents can have direct access to their children's assessments. Students also benefit from technology through applications that support the learning process" (Respublica, 2023).

UNESCO has published the document "Guidance on Generative AI in Education and Research," a global guide for the ethical and effective use of AI in formal and non-formal education. "This document emphasizes that AI is offering new teaching and learning solutions being tested in various global contexts. It also highlights the importance

of using AI to improve equity and quality in education, especially in developing countries" (UNESCO, 2023).

Communication models like ChatGPT can answer diverse questions in the humanities and exact sciences, helping solve complex tasks and translations. "This technology also provides assistance in writing and proofreading, making learning processes more accessible" (Respublica, 2023).

A major challenge remains the readiness of education systems, especially in Balkan countries, to adopt AI and benefit from its potential to increase education quality and reduce inequalities among students. "Through AI, new generations can be better prepared for the labor market and have greater opportunities for personal and professional development" (GCED Clearinghouse, 2023).

Conclusion

Based on the analysis of articles, the review of definitions, and the studied concepts, we conclude that AI has made extraordinary progress in social spheres.

Although one cannot consider only the turning points and advantages brought by this new model of communication and knowledge - because on the other hand it also carries consequences related to the possibility of many abuses - nevertheless, the choice and overcoming of these can again be achieved through computerized mechanisms. AI establishes a new relationship between the individual and society in terms of how willing the individual is to utilize the support of digital platforms and applications for their own needs with high reliability.

AI is expected to offer solutions to many complex situations that society continuously faces, such as conflicts, inequalities, employment opportunities, and education. Meanwhile, the risks related to AI are not that it will take over the world or become sentient, but that due to the ongoing complexity of society, AI will be used to direct and control systems on a large scale, independently of humans, and therefore disconnected from the reality that such control should avoid catastrophic errors.

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