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EDITORIAL

Human Intelligence (HI) and Artificial Intelligence (AI): Challenges for the Social Sciences in Times of Transformation

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Introduction: A Time of Change

Humanity is undergoing one of the most profound transformations in its recent history. The rapid advancement of artificial intelligence (AI), driven by increasingly sophisticated algorithms, the massive availability of data, and the growth of computational capacity, is redefining how we work, learn, conduct research, communicate, and make decisions (Schwab, 2017; Russell, 2019). Against this backdrop, a fundamental question arises for the social sciences: What is the role of human intelligence (HI) in a world where machines can generate content, analyze information, and solve problems with unprecedented efficiency?

Far from being framed as a competition between humans and intelligent systems, the challenge lies in understanding how these two forms of intelligence can complement each other to address the complex social, economic, cultural, and environmental problems facing global society (Brynjolfsson & McAfee, 2014). While artificial intelligence provides speed, processing power, and predictive analysis, human intelligence remains irreplaceable in areas such as creativity, ethics, empathy, interpersonal skills, social sensitivity, and collective construction (Nussbaum, 2010; Floridi, 2023).

The commonalities between human intelligence and artificial intelligence raise important questions about the future of education, work, scientific research, and the governance of emerging technologies. They also compel us to rethink fundamental concepts related to autonomy, decision-making, privacy, equity, and social inclusion (UNESCO, 2022). Consequently, they are called upon to play a leading role in the critical analysis of these changes, providing theoretical and methodological frameworks that enable us to understand not only what technology can do, but also its implications for individuals, communities, and institutions (Castells, 2009).

In times of rapid transformation, the real challenge lies not only in developing more advanced artificial intelligence systems but also in strengthening the human capabilities needed to channel these advances toward the common good. Building more just,

sustainable, and democratic societies will depend on our ability to integrate the power of artificial intelligence with the values, principles, and capabilities that distinguish human intelligence (Cortina, 2013). From this perspective, the relationship between HI and AI becomes a central subject of reflection and an opportunity to redefine the horizons of knowledge, innovation, and human development.

Research as a Driver of Social Transformation

For decades, the concept of innovation was primarily associated with technological development and economic growth. However, today's challenges demonstrate that sustainable solutions require broader, interdisciplinary approaches that integrate social, cultural, and ethical dimensions (Nowotny et al., 2001).

Scientific research plays a strategic role in generating evidence for decision-making and contributing to the construction of more equitable and inclusive societies. However, the value of research lies not only in producing academic results or indicators of scientific productivity, but also in its ability to positively impact people's lives and provide solutions to complex societal problems.

In this context, innovation must be understood as a social process involving the participation of various actors: universities, businesses, governments, social organizations, and communities. Knowledge creation takes on greater significance when it is geared toward solving real problems, strengthening collective capacities, and promoting the common good (Etzkowitz & Leydesdorff, 2000).

The Ethical Challenge of Artificial Intelligence

Recently, in international academic discussions about the future of artificial intelligence, a fundamental question has been raised: Is it possible to fully program accountability into AI systems to eliminate any risk of misuse? Advances in algorithmic security have enabled the development of increasingly sophisticated mechanisms to restrict dangerous content, mitigate bias, and uphold the principles of responsible AI. However, various analyses agree that there is no technical solution capable of anticipating all possible circumstances or of absolutely preventing a system from being used in ways not foreseen by its designers (Russell, 2019).

This reflection is particularly relevant because it highlights a reality often overlooked in technological debates: responsibility cannot be completely delegated to algorithms. Ethics, deliberation, contextual interpretation, and decision-making in complex situations remain essentially human attributes. While AI can optimize processes and expand cognitive

capabilities, human intelligence remains responsible for establishing the limits, values, and purposes that guide technological development.

For this reason, it is essential to promote a people-centered vision of innovation. Artificial intelligence must be viewed as a tool to enhance human capabilities, not as a substitute for critical thinking, creativity, social sensitivity, or ethical responsibility. These future demands professionals can combine technological expertise with human skills.

Building more humane, democratic, and sustainable societies will depend, to a large extent, on our ability to integrate knowledge, technology, and values. This is, without a doubt, one of academia's greatest challenges and responsibilities. AI can be programmed to follow rules, but only human intelligence can define which rules are fair, necessary, and socially legitimate. From this perspective, scientific research becomes a tool for transformation, and innovation becomes an ethical commitment.

Conclusions

Consequently, the future should not be viewed as a confrontation between Human Intelligence (HI) and Artificial Intelligence (AI), but rather as an opportunity to develop an expanded form of intelligence that combines the strengths of both. AI can enhance our capacity for analysis and problem-solving; HI provides the meaning, ethics, and vision for the future that enable us to transform knowledge into human development.

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