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DIGITALIZATION AS A NEW EPISTEMOLOGICAL PARADIGM OF UNDERSTANDING REALITY

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Abstract

The rapid development of digital technologies has significantly transformed contemporary epistemological frameworks of understanding reality. Digital infrastructures, artificial intelligence, and global communication networks increasingly influence the processes of knowledge production and circulation. Recent studies in the philosophy of information emphasize that digitalization reshapes the relationship between knowledge, technology, and society. Floridi (2024) argues that modern informational infrastructures create a new epistemic environment in which knowledge processes become embedded in digital systems. Similarly, Peters and Jandrić (2022) describe the emergence of "digital knowledge ecologies," where knowledge is produced and disseminated through networked environments. Research on digital transformation also highlights the role of technological systems in restructuring knowledge creation and management processes (Ibujés-Villacís & Franco-Crespo, 2023). Furthermore, scholars note that digital society fundamentally changes the epistemological status of knowledge by integrating technological and social dimensions of cognition (van Dijk, 2021; Stahl, 2022). This study interprets digitalization as a new epistemological paradigm that transforms the ontology and circulation of knowledge in contemporary digital society.

Keywords

digital epistemology, digitalization, philosophy of information, knowledge transformation, digital society.

Introduction. The rapid development of digital technologies has fundamentally transformed the social and intellectual conditions in which knowledge is produced and interpreted. Digital communication systems, artificial intelligence, and global information infrastructures have created new forms of

interaction between humans, technology, and knowledge. As a result, contemporary philosophical discourse increasingly addresses the epistemological implications of digitalization and its influence on the nature of knowledge.

In classical epistemology, knowledge was traditionally understood as a rational and objective representation of reality grounded in logical reasoning and empirical verification. However, the emergence of digital environments has significantly altered the mechanisms of knowledge production and dissemination. Scholars emphasize that digital technologies not only facilitate access to information but also reshape the epistemic structures through which knowledge is created and circulated in society [3].

Within the framework of the philosophy of information, Floridi argues that modern reality can be interpreted as an "infosphere," a global informational environment in which human cognition and digital technologies become increasingly interconnected [2]. In such conditions, knowledge production is no longer confined to traditional academic institutions but is distributed across digital platforms and global communication networks.

Furthermore, recent research highlights that digital transformation significantly influences knowledge management and knowledge creation processes. Ibujés-Villacís and Franco-Crespo (2023) demonstrate that technological infrastructures increasingly integrate organizational and social knowledge systems within digital economies. Similarly, van Dijk (2021) notes that digital society fundamentally reshapes social structures and communication patterns, thereby affecting the epistemological status of knowledge [5].

At the same time, the growing role of artificial intelligence introduces new epistemological challenges related to the reliability, autonomy, and interpretation of knowledge. According to Stahl (2022), AI technologies may alter traditional understandings of knowledge by integrating algorithmic systems into cognitive processes.

Therefore, digitalization can be interpreted not merely as a technological transformation but as the emergence of a new epistemological paradigm that redefines the ontology, production, and circulation of knowledge in contemporary digital society.

Methodology. This study employs a qualitative philosophical approach to analyze the epistemological implications of digitalization in contemporary society. The research is grounded in conceptual and comparative analysis of classical and contemporary theories of knowledge, focusing particularly on the transformation of epistemological frameworks in digital environments.

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The conceptual analysis method is used to examine the key philosophical concepts related to digital epistemology, including digital knowledge, informational environments, and technological mediation of cognition. This method allows for a deeper understanding of how digital technologies influence the ontology and structure of knowledge systems. Within this framework, the study draws on the philosophy of information developed by Floridi, who conceptualizes contemporary reality as an "infosphere" in which informational processes shape human cognition and knowledge production [2].

In addition, a comparative philosophical analysis is applied to examine the differences between traditional epistemological models and emerging digital knowledge systems. Classical epistemology traditionally viewed knowledge as an individual cognitive achievement grounded in rational and empirical verification. However, recent research suggests that knowledge in digital environments is increasingly produced and distributed through networked infrastructures and collaborative digital platforms [3].

The study also incorporates elements of interdisciplinary analysis by examining research on digital transformation and knowledge management. Previous studies demonstrate that technological infrastructures significantly influence knowledge creation and circulation in digital economies [4]. Furthermore, theoretical insights from digital society and network society research provide an important analytical framework for understanding how digital communication systems reshape epistemic structures [5].

Through the integration of these methodological approaches, the study aims to identify the key epistemological transformations associated with digitalization and to conceptualize digitalization as a new paradigm of understanding knowledge and reality in the digital age.

Results and Discussion. The analysis of contemporary philosophical literature demonstrates that digitalization significantly transforms the epistemological structure of knowledge in modern society. One of the most important results of this transformation is the emergence of new informational environments in which knowledge is produced, distributed, and validated through digital infrastructures. As Floridi argues, the development of digital technologies has created a global informational environment, or "infosphere," where informational processes increasingly shape human cognition and social interaction [2]. In such conditions, knowledge production becomes closely connected with digital communication systems and technological infrastructures.

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The study also reveals that digitalization changes the traditional relationship between knowledge and social structures. In classical epistemological models, knowledge was primarily associated with individual cognition and institutional scientific activity. However, contemporary digital environments facilitate new forms of collaborative and networked knowledge production. Peters and Jandrić (2022) describe this phenomenon as the emergence of "digital knowledge ecologies," where knowledge is created and circulated through interconnected digital networks that combine technological systems with collective intellectual activity.

Another important finding concerns the role of technological infrastructures in shaping knowledge creation processes. Research on digital transformation indicates that digital platforms and information technologies increasingly influence the ways knowledge is generated, stored, and disseminated within modern economies and social systems [4]. These technological systems integrate organizational knowledge, data infrastructures, and communication networks, thereby forming complex informational ecosystems that redefine epistemic practices.

The development of digital society also contributes to the transformation of epistemic authority and communication structures. According to van Dijk digital communication networks fundamentally reshape patterns of social interaction and information exchange, which affects the distribution and legitimacy of knowledge within contemporary societies. Knowledge is no longer confined to traditional academic institutions but increasingly circulates within digital platforms, open knowledge systems, and global communication networks.

Furthermore, the integration of artificial intelligence into knowledge systems introduces new epistemological challenges. Stahl emphasizes that algorithmic technologies participate in processes of knowledge production and interpretation, raising important questions about the reliability, transparency, and autonomy of knowledge generated by digital systems. These developments demonstrate that digital technologies do not merely support knowledge production but actively transform epistemic processes themselves.

Finally, the theoretical framework of network society provides an important perspective for understanding the broader social context of digital epistemology. Castells (2020) argues that networked communication structures redefine the flow of information and knowledge within global societies. In this context, knowledge becomes embedded in digital networks and distributed across informational infrastructures that connect individuals, institutions, and technological systems.

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Overall, the results of the analysis indicate that digitalization represents not only a technological transformation but also a profound epistemological shift. Digital environments reshape the ontology, production, and circulation of knowledge, leading to the emergence of a new epistemological paradigm in which informational infrastructures and technological mediation play a central role in contemporary knowledge systems.

Conclusion. The analysis conducted in this study demonstrates that digitalization represents not merely a technological transformation but a profound epistemological shift that reshapes the foundations of knowledge in contemporary society. The rapid expansion of digital infrastructures, artificial intelligence, and global communication networks has created new conditions for knowledge production, dissemination, and validation.

The findings indicate that the emergence of digital environments significantly transforms the traditional epistemological understanding of knowledge. In classical epistemology, knowledge was primarily associated with individual cognition and institutional scientific activity. However, contemporary digital environments enable new forms of distributed and networked knowledge production. As demonstrated in recent philosophical research, digital platforms and communication systems increasingly mediate the processes through which knowledge is generated and circulated.

Furthermore, the concept of the "infosphere" proposed in the philosophy of information highlights the growing integration between human cognition and informational technologies. In such informational environments, knowledge becomes embedded within digital infrastructures and technological systems that shape contemporary epistemic practices.

The study also shows that the development of digital society and networked communication structures fundamentally influences the social distribution and legitimacy of knowledge. Theories of digital society and network society empasize that knowledge flows increasingly operate within global informational networks connecting individuals, institutions, and technological systems.

Overall, the results suggest that digitalization should be understood as the emergence of a new epistemological paradigm in which knowledge production is mediated by technological infrastructures and distributed across digital networks. Future research should further explore the philosophical implications of artificial intelligence, algorithmic systems, and digital knowledge environments for the development of contemporary epistemology.

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