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Digital Humanities Postprint from a Philosophical Perspective

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Abstract

This article analyzes the essence, connotations, and characteristics of digital humanities and its influence on society and humanity from a philosophical perspective, explores the inevitability of digital humanities entering the philosophical horizon and thus the emergence of philosophical research on digital humanities, and based on this, conducts philosophical inquiry into digital humanities from four dimensions—ontology, epistemology, axiology, and praxeology—thereby establishing an organic association between digital humanities and the fundamental academic perspectives of philosophy, with the aim of elucidating the methodological essence of contemporary digital humanities and its philosophical significance and profound value.

Full Text

Preamble

This article analyzes the essence, meaning, and characteristics of digital humanities and its impact on society and humanity from a philosophical perspective, exploring the necessity of digital humanities entering the philosophical horizon and thus giving rise to the study of digital humanities philosophy. Building upon this foundation, it conducts philosophical research on digital humanities from four dimensions—ontology, epistemology, axiology, and practice theory—establishing an organic connection between digital humanities and the fundamental academic perspectives of philosophy. The aim is to elucidate the methodological essence of contemporary digital humanities and its philosophical implications and deep value.

Digital humanities represents a reconstruction of humanities disciplines and humanistic spirit in the digital age. It urgently requires philosophical understanding and reflection. While we use digital technology to comprehend the world, digital technology is also renewing our philosophical worldview. Exploring the

humanistic dimension of digital humanities, strengthening the theoretical and philosophical nature of its methods and applicable domains, thereby expanding the breadth and depth of foundational knowledge in digital humanities—the perspectives and methods of digital technology are continuously influencing and reshaping humanities disciplines. Without timely and profound critical reflection, the potential of digital technology for human understanding of the universe and research norms cannot be accurately and fully realized, and its impact on our self-perception and the mutual relationships and positioning between individuals and society is immeasurable.

Contributions at the Method and Tool Level

The profound changes wrought by digital humanities can be compared to the great revolution of the European Renaissance. If scholars wish to contend with digital technology, they must take algorithms more seriously. For human society, today's digital humanities represents a new myth of the technological era—it poses challenges to all humanities disciplines. Given that the combination of coding, information technology, and media is often used to construct new archival forms and databases, we need to address various protocols and theoretical and philosophical issues related to coding work.

Overall, the numerous achievements in digital humanities currently exhibit more technology than theory. This means digital humanities scholars tend to favor using techniques like programming rather than conducting theoretical research on technology itself. With the development of multimedia, internet technology, and artificial intelligence, digital humanities has gradually expanded from text analysis to new technological domains. Research has extended from its initial focus on linguistics to library and information science, with existing research concentrating on four major areas: definition and basic theory of digital humanities, technology and applied practice, infrastructure construction, and methodological studies.

In digital humanities research projects, technology can easily become the core and dominant element, causing the research focus to tilt toward technology. Although there are documents utilizing philosophical perspectives, few analyze the essence and development patterns of digital humanities from the fundamental viewpoints of philosophy. For instance, Cheng Zhongying from the Philosophy Department of the University of Hawaii wrote “Digital Humanities Education Serving as the Foundation of Library Science Theory,” while Hu Jihua from Beijing International Studies University examined “Digital Humanities from the Perspective of Plato’s Philosophy.” Yang Qingfeng from Fudan University’s Center for Life Medical Ethics Research first proposed that digital humanities is not only a research method but also has the significance of a holistic methodology. These studies emphasize using humanistic care and humanistic spirit to guard the bottom line of humanities research in the digital civilization era.

1. Ontological Perspective on Digital Humanities

The Essence of Digital Humanities Research

Digital humanities is both a derivative of technology and a product of society, bearing social characteristics from its inception. Human production activities are based on production relations and other social relations, and digital humanities research must also be established on the foundation of certain social relations. The social attribute of digital humanities is what distinguishes it from technical research and constrains technological studies. Therefore, sociality is the essential attribute of digital humanities.

After digital technology is infused with humanistic values and research methods, its functions become more powerful, its domains of application more diverse, and it gradually approaches and integrates into the essential attributes of humanities disciplines. Digital technology is no longer merely used for calculating and processing the content and form of research objects; it also carries the essential characteristics and research value of research content at the humanistic level, such as cognitive expression and knowledge dissemination. While humans shape technology, technology also influences humans and changes the development of human social attributes. Digital humanities is influencing and transforming human social life.

Ontological Questions Raised by Digital Humanities

Ontology is a philosophical theory that explores the origin or substrate of things. From an ontological perspective, the primary focus is on what the essential attributes of digital humanities are and what new ontological questions digital humanities research may raise.

There is no single, unified concept of digital humanities. Researchers define and use this term differently depending on their fields. Some view it as an interdisciplinary field or a new model of academic research organization, while others see it as a cultural model. It is manifested as fully utilizing digital technology and humanistic knowledge to conduct cooperative, interdisciplinary scientific research, teaching, and publishing activities. The author believes its essence is a methodology.

Humanities scholarship and digital technology each have distinctive features. Humanities academic research is full of subjectivity, ambiguity, and uncertainty, primarily using qualitative research. Digital technology excels at structured computational patterns, focusing on empirical and quantitative research. The combination of the two produces many thoughtful and meaningful chemical reactions, with the scope of reactions expanding from small to large and depth increasing from shallow to deep. From digital technology-based text analysis to multi-media humanistic relations that keep pace with network and artificial intelligence development, digital humanities continuously updates its essence and function in ongoing iterative development.

The open-source acceptance and convenient sharing concept of building shared platforms will inevitably nurture more knowledge commons, directly or indirectly affecting social economy and culture. However, if research continues along the trend of more technology and less theory, it may challenge or even subvert the core values of traditional humanities research by elevating thinking experience and textual expression. Over time, this could erode humanistic spirit and interpersonal communication. This should be the essential concern raised by digital humanities. To avoid this situation, digital and humanistic elements must be integrated, with humanities serving as guidance and soul. This requires clear and explicit goals, rationality that assesses the situation, and the wisdom to handle contradictions, compatibility, and the determination and courage to transcend the past.

2. Epistemological Perspective on Digital Humanities

Materialist epistemology adheres to the cognitive path from matter to consciousness, holding that the material world is objectively real and emphasizing that cognition is a reflection of objective reality by humans. Epistemology includes not only beliefs about the nature and structure of knowledge but also the regulatory and influential roles of these beliefs in individual knowledge construction and knowledge acquisition. This has always been a core issue in philosophical research.

The Connotation of Digital Humanities

Digital humanities practice must not be simply equated with conducting humanities research in digital ways. The future development of digital humanities must be based on critical thinking and exploration of its philosophical value. Before beginning research, we must clarify the distinction between “humanities digitalization” and “digital humanitization.” Humanities digitalization refers to the digital presentation and digital expression of humanities scholarship, while digital humanitization belongs to the innovation of research methods—integrating modern digital information technology into humanities research fields through the acquisition of humanities research materials and digital expression methods, thereby expanding the potential of humanities research and stimulating humanities scholarship.

Characteristics of Digital Humanities

Based on the materiality of cognition and practice and the importance of spiritual culture to a field of inquiry, digital humanities continuously guides people to pay attention to and understand how humanities research changes with the transformation of information storage, processing, and transmission media. Digital humanities possesses both the material characteristics of digital technology and the spiritual characteristics of culture. It can make research more precise through modeling and reasoning while combining social spirit and humanization

to make research more philosophical.

In *Digital Humanities*, Burdick proposes that digital humanities emphasizes visualized knowledge production and sharing, views design as an indispensable component of research, values cross-media intersection, and possesses characteristics of environmental and platform mobility in humanities knowledge. Digital humanities applied to the development of collaborative academic tools also exhibits these features.

New Epistemological Questions Raised by Digital Humanities

Digital humanities brings many new epistemological questions, inspiring new thinking about traditional epistemological issues such as the subject of cognition, the process of cognition, and the mechanism of cognition. Ancient epistemology gains new vitality by touching upon new technologies, and new knowledge philosophy questions such as knowledge production, evolution, understanding, dissemination, and innovation broaden the horizons of epistemological exploration.

While leveraging the powerful epistemological functions of digital humanities, we must also pay attention to its humanistic effects and ethical issues, thereby controlling and guiding its epistemological functions to facilitate comprehensive development in research fields.

3. Axiological Perspective on Digital Humanities

Axiology, also known as the philosophy of value, refers to philosophical doctrines about the nature, standards, and evaluation of value, studying human value and the meaning of human existence. Humanities scholarship is dedicated to exploring human value and meaning.

The Value of Digital Humanities

From the application of digital humanities in humanities research, we can analyze its value orientation. Whether humanities digitalization or digital humanization, both expect to achieve integration of digital and humanistic elements. Digital humanities intervention in human cognition forms new characteristics of cognition, which 启发 us to think about the value of digital humanities from the perspective of humanities and technology integration.

Optimistic and Pessimistic Value Evaluations

There have always been two evaluations of digital humanities: optimistic and pessimistic. Optimistic axiology views that, like Darwin's theory of evolution, digital technology is becoming increasingly intelligent. We can not only make rational choices about technology but also actively improve it, ultimately achieving development that follows human needs. Any new technology evolved is a compensation or remedy for certain deficiencies in old technology to better adapt

to human needs. From the perspective of human social civilization development, agricultural civilization mainly solved human survival problems, industrial civilization mainly solved human development problems, and digital civilization mainly solves human self-realization problems. Its greatest significance lies in achieving comprehensive human development.

Pessimistic axiology, conversely, focuses on the negative value of digital humanities, believing that the enormous and advanced functions of digital humanities contain many worrisome aspects. It often sacrifices human spiritual freedom and world diversity, moving toward the opposite of humanistic spirit through instrumental rationality. The worship of digital technology makes it difficult for humanistic spirit and values to be infused into digital technology.

The Dialectical Relationship Between Optimism and Pessimism

Optimism represents a general human perspective. The positive value of information technology for humans and human society is dominant, which is why it is chosen by people and used to promote human development. Pessimism, however, enables us to use a calm perspective to examine the negative effects of technology. Especially when we currently face new technical negative effects such as the digital divide and even computer crime, digital humanities research should pay more attention to providing philosophical guidance. In the contest between humans and technology, the trend of amphibious social interaction between real and virtual societies has significantly increased. The research paradigm of digital humanities must both optimistically view its achievements and be vigilant about its dangers.

4. Practical Theory Perspective on Digital Humanities

A New Paradigm for Digital Humanities Research Based on Practice Theory

Like any technological revolution in history, the emergence of digital humanities will bring about a revolution in human values, leading to the revaluation and reconstruction of traditional values. Based on practice theory, digital humanities research forms a new paradigm with three levels: digital paradigm, information paradigm, and frontier paradigm. The digital paradigm emphasizes the comprehensive impact of digital technology on humanities research, manifested in the shift from humanities digitalization to cognition digitalization. The information paradigm, as the theoretical form or spiritual core in non-ontological and non-epistemological senses, is the main paradigm for practicing practice theory. The frontier paradigm, which combines the above paradigms, represents the most dynamic academic exploration forming an endless frontier of practice theory.

Marx defined the object of his philosophy as human practical activities that form the basis of the existing world and defined the task of philosophy as answering the relationship between subject and object in practical activities, providing

methodology for changing the world. Practice is the sole criterion for testing truth; practice determines the formation and development of cognition. It is necessary to examine digital humanities from the perspective of practice theory to penetrate and understand existing digital humanities.

Digital Humanities Practice Scenarios

Digital humanities is a humanistic principle that defines the hierarchy of the relationship between humans and technology and proposes contextual interpretations. What distinguishes humans is learning to manufacture and use tools. Humans invented hunting tools for primitive society, farming tools for agricultural society, machinery for industrial society, and digital technology for the information society. As an important component of human society's digital transformation, artificial intelligence technology is permeating all areas of human life and scientific research.

In the new model of human-technology interaction, human learning is not only about digital expression and transmission of knowledge but more importantly about achieving digital mastery of knowledge through human-computer interaction. Digital humanities research should reinterpret and explore questions such as the value and meaning of human existence and what kind of existence humans are. It should also re-examine the interactive relationships between people and between humans and technology.

Digital Humanities Methodology Practice

The process of applying digital technology to humanities practice involves digital modeling and expectations for research effectiveness, achieving automated knowledge production and representation. From the perspective of social and ecosystem balance, digital humanities should be established as the humanistic foundation for the "new infrastructure," linking its development with the overall development of society. Only by dialectically grasping and following the covariant nature of its development can digital humanities truly become a vibrant scientific research methodology needed for social research.

Whether in top-level design or specific implementation, we must vigorously avoid technology suppressing human subjective agency in the process of use.

5. Conclusion

Studying digital humanities from a philosophical perspective has unique significance for technological progress and social development. This research helps us recognize that the digital is the core representation of the information society, further understand the methodological essence of digital humanities, and elaborate on why digital humanities causes fundamental social changes by distinguishing between pessimistic and optimistic values and exploring digital humanities research paradigms. Grasping these elements and their relationships

at the philosophical level is essential for developing digital civilization.

Digital humanities is a research field always on the frontier of tracking, and the process of studying digital humanities philosophy is also a process of digital humanities philosophy continuously moving toward the future. The development of digital humanities must not only follow the objective laws of things but also the laws of social development. Digital humanities has always co-developed with society, and its development pace is closely related to social needs, economic development, and cultural construction. It cannot work behind closed doors but must be integrated with the entire society's development.

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Note: Figure translations are in progress. See original paper for figures.

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