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Reconstructing Technology and the Humanities—A Review of *An Introduction to Digital Humanities and Its Cutting-Edge Pedagogical Paradigm*

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Abstract: Amidst the current wave of digital technologies—such as Artificial Intelligence Generated Content (AIGC) and big data—impacting traditional humanities research, the digital humanities has gradually ascended to become a core methodological paradigm. Edited by Professor Peng Qinglong and Professor Du Lanlan and published in 2024, *An Introduction to Digital Humanities* is a specialized textbook that combines a forward-looking perspective with strong pedagogical practicality. Structured around the framework of “Basic Concepts and Methods of Digital Humanities—Applications and Practices of Digital Humanities,” the book systematically synthesizes the field’s core ideas and practical approaches. With its focus on frontier topics, interdisciplinary case studies, and operational tool-and-method designs, it offers higher education a multi-level and diversified set of resources for teaching digital humanities. This book review will unfold from three dimensions: the frontier paradigm of the digital humanities, pedagogically empowering tools, and insights into the discipline’s future. It will explore how the book balances digital technology with humanistic care, revealing its contributions to the advancement of the digital humanities field and its unique value in constructing a digital humanities discourse system with Chinese characteristics.

Keywords: Digital humanities; digitization; interdisciplinarity; New Liberal Arts; teaching

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题目: 重构技术与人文——评《数字人文导论》的前沿教学范式

摘要: 在人工智能生成内容与大数据等数字技术冲击传统人文科学研究的当下，数字人文已逐渐跃升为核心的方法论范式。2024年，由彭青龙教授、都岚岚教授主编的《数字人文导论》是一部兼具前沿视野与教学实用性的专业教材，以“数字人文基本概念与方法—数字人文的应用与实践”的逻辑框架，系统梳理了数字人文的核心理念与实践操作。全书以前沿议题、跨学科案例和可操作的工具方法设计，为高校数字人文教学提供了多层次、多样化的资源支撑。本文将从数字人文之人文学科的前沿范式、教学赋能型工具、应用于学科未来的启示三个维度展开书评，探讨全书如何平衡数字技术与人文关怀，揭示其助推数字人文领域发展的贡献，及其在构建中国特色数字人文话语体系中的独特价值。

关键词: 数字人文；数字化；交叉学科；新文科；教学

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With the rapid advancement of information technology, the humanities are undergoing a profound digital transformation. Digital technologies have not only changed the ways culture is produced and disseminated, but also increasingly reshaped research paradigms, making data-driven analysis, algorithmic modeling, and visual representation essential tools for humanities scholarship. Against this backdrop, Digital Humanities has gradually emerged as a leading and interdisciplinary field attracting global academic attention. Published in 2024, *An Introduction to Digital Humanities* (Shanghai Jiao Tong University Press, 2024), edited by Professor Peng Qinglong and Professor Du Lanlan, is a textbook-oriented monograph introduced within this scholarly context. It presents, in a systematic manner, the fundamental theoretical concepts of digital humanities as well as pathways for practical application. Overall, the book combines the dual functions of an introductory disciplinary guide and a teaching tool. In terms of organizing core knowledge and offering a forward-looking perspective, it provides a reference framework for developing university-level digital humanities courses and promotes the construction of digital humanities education systems. Given the still limited availability of such textbooks in China during the early stage of the field's development, the book is of considerable significance.

1. Integrating the Humanities and Technology:

A Frontier Paradigm for the Humanities in the Digital Age

As digital technologies profoundly reshape the forms and practices of academic research, digital humanities

has increasingly become a key pathway for the interdisciplinary transformation of the humanities. *An Introduction to Digital Humanities* follows a progressive logic that moves from theoretical understanding to practical application. Through its structure—“Part One: Basic Concepts and Methods of Digital Humanities,” “Part Two: Applications and Practices of Digital Humanities,” and the concluding “Epilogue—ChatGPT: Has the Era of General Artificial Intelligence Truly Arrived?”—this book constructs a systematic knowledge map that proceeds from theoretical foundations, to practical implementation, and finally to forward-looking reflection. At the levels of theory and methodology, it both responds to the historical logic of disciplinary development and remains anchored in cutting-edge scholarly concerns. This organization not only reflects a strong awareness of disciplinary system-building, but also demonstrates a clear orientation toward instructional design.

For students of the humanities and for humanities teaching, the central challenge of digital humanities lies in overcoming technical barriers and dismantling the disciplinary divide between the humanities and technology. The book begins with Chapter One, “Introduction to Digital Humanities,” which builds readers’ systematic understanding of the field by addressing its origins, scope, current landscape, scientific scrutiny, and humanistic evaluation. The section on “scientific scrutiny of literature in the digital age” and “humanistic evaluation”^① surveys how diverse digital technologies have disrupted the paradigms of traditional literary studies. It emphasizes the ontological status of literature, subjectivity, and humanistic values, while reflecting on how technical tools should serve literature’s aesthetic values and the inheritance of the humanistic spirit. As Prof. Peng Qinglong (2022, p. 27) writes, “the disciplinary boundary between science and the humanities exists only for the needs of knowledge production and talent cultivation; from the perspective of human social practice, the two are in fact one and the same”. Digital humanities, therefore, does not aim to replace warm, sensuous humanistic interpretation with cold data; rather, it seeks to enhance the objectivity and breadth of humanistic evaluation through scientific scrutiny. This dialectical stance—upholding core principles while innovating, empowering scholarship through technology, and remaining committed to humanistic values—runs throughout the textbook and sets the theoretical tone for the discussions that follow.

Chapter Two titled “Basic Concepts of Digital Humanities” further unpacks the discipline’s core categories. It moves from the underlying logic of “technology, media, and information,” to the practical foundations of “digitization and infrastructure,” and then to the technical approaches of “big data and data processing,” before ultimately turning to the humanistic applications of “distant reading and scalable reading,” thereby gradually constructing a conceptual framework for digital humanities. The defining feature of digital humanities lies in the deep integration of digital technologies with humanistic inquiry. This integration is reflected not only in the adoption of technical tools, but also in a transformation of research thinking—from singular, traditional close reading toward data- and resource-driven, multi-model and multimodal analysis. After introducing Franco Moretti’s notion of “distant reading,” the book not only explains its dialectical relationship with traditional methods of literary interpretation—oppositional yet

^① This section of *An Introduction to Digital Humanities* has been published as an article in *Exploration and Free Views*.

complementary—but also, by drawing on “Scalable Reading” as a model of literary analysis, illustrates how computational methods can be combined with conventional humanistic interpretation to establish a data-driven approach to humanities research.

In recent years, universities in Europe and North America have widely established digital humanities centers and promoted open data platforms and collaborative research models. Digital repository building, online academic communities, and transnational collaborative projects, for instance, have all become key forms of support for digital humanities research. Prof. Peng Qinglong (2020), based on an analysis of 72 digital-humanities-related articles published in mainland China between 1990 and 2017, noted that digital humanities in China remains at an early stage of development. This textbook likewise attends to both international and domestic trends in the field, observing that “digital humanities started relatively late in Asia, Africa, and Latin America; compared with Europe and North America, there remains a certain gap in the scale of researchers, research topics, and methodologies,” while also arguing that “China has demonstrated a strong latecomer advantage in its exploration of digital humanities” (Peng & Du, 2024, p. 8). Breakthroughs in China’s digital humanities theory and practice still have a long way to go. Continued attention is needed to the networked and collaborative characteristics of knowledge production in digital humanities, so as to enable artificial intelligence, big data, network technologies, and digital media to reshape modes of cultural production and dissemination, and to promote the gradual transformation of traditional humanities disciplines in terms of knowledge structures and practical methods.

2. Empowering Teaching Tools: Practical Value within Digital Humanities Education Systems

If the forward-looking vision of digital humanities as a frontier discipline forms the basis of *An Introduction to Digital Humanities*, then the book is not merely a theoretical work, but also a course-oriented tool designed for teaching practice. Its textbook function constitutes another key feature. Digital humanities methods represent a combination of “insights and methods from computer science” and “the methods, questions, and theories of the humanities” (Berry & Fagerjord, 2019, p. 25). By integrating theoretical interpretation with case-based analysis, the book enables readers to grasp the systematic concepts of digital humanities while also acquiring foundational research skills through practical tool use.

Today, building disciplines solely around linguistics or literary studies can no longer adequately respond to the demands of the times (Peng, 2026, p. 6). Digital humanities points toward a deeper integration of the humanities with technologies such as artificial intelligence, data analytics, and virtual reality, thereby forming a more complex research ecology in which diverse tools play an important role. Chapter Three titled “Major Tools in Digital Humanities” and Chapter Four titled “Major Analytical Methods in Digital Humanities” further translate theoretical concepts into operational technical pathways. For humanities scholars, this not only facilitates understanding of relevant digital tools, but also helps cultivate methodological awareness—namely, how to select appropriate data tools and technical routes in accordance with specific research questions.

Chapter Three is not confined to a single-dimensional introduction to technology. Instead, it builds a

comprehensive skill tree that progresses from “technological literacy” to hands-on operation, incorporating the use cases and practical essentials of corpus tools, natural language processing tools (e.g., NLTK, spaCy), geographic information system tools (e.g., ArcGIS, QGIS), and frontier technologies such as virtual reality (VR). By outlining the basic principles and typical application scenarios of these tools, the book enables readers to grasp the relationship between technology and research questions, rather than remaining at the level of procedural operation alone. Chapter Four covers cutting-edge algorithms such as Markov chain Monte Carlo (MCMC) and latent Dirichlet allocation (LDA), effectively serving as a compact methods handbook for digital humanities. It offers instructors ideas for designing course-based experiments and provides students with a reference for self-directed learning. As an introductory textbook, the book explains the algorithmic cores and mathematical models in relatively substantial detail. The editors are not satisfied with superficial instruction based on ready-made software; instead, they aim to expose students to the field’s most advanced tools and algorithmic logics, seeking to cultivate the ability to understand underlying principles and discern patterns in data.

As Peng points out, “As a certain sense, digital humanities is an emerging field generated through the integration of technology and the humanities, and it is also an interdisciplinary branch produced by the cross-fertilization between university computer science and the humanities” (2022, p. 7). In terms of pedagogy, the book’s demonstration of interdisciplinary applications makes it an ideal textbook not only for students in traditional humanities disciplines such as literature and history, but also for those majoring in fields like computer science and artificial intelligence by providing them with a humanistic perspective. It enables students to understand that the digital humanities is not merely a singular, technology-driven field, but rather a problem-solving framework that can be broadly integrated across various humanities disciplines. This understanding is particularly crucial for cultivating interdisciplinary talent. Furthermore, the book offers diverse curriculum designs and comprehensive tool guides, incorporating theoretical explanations and practical tool introductions within multidisciplinary case studies. From the standpoint of teaching, it translates digital humanities from an abstract concept into an actionable learning pathway. This instructional functionality affords the book substantial practical value within the digital humanities educational system.

3. Applied Insights and the Future of the Discipline:

The Profound Significance of the Digital Humanities Textbook

The first part of *An Introduction to Digital Humanities* addresses the questions of “how to do it” by providing theoretical foundations and tool-oriented guidance, while the second part, “Applications and Practices of Digital Humanities,” responds to “what to do” by engaging with disciplinary concerns and interdisciplinary applications. Each chapter draws on representative case studies to demonstrate the diversity of research questions. Through in-depth discussions of four major areas—linguistics, literary studies, comparative literature, and historical geography—the editors show how digital technologies can be applied to, and in turn reshape, the research paradigms of traditional humanities fields. This design highlights the book’s pedagogical usability in teaching practice, assisting students from diverse academic backgrounds in

concretely understanding how various disciplines can leverage digital methods to conduct appropriate research.

The chapters on “Digital Humanities and Linguistics” demonstrate how digital methods intervene in linguistic analysis, emphasizing techniques grounded in large-scale corpus data analysis to excavate linguistic meaning. They also explore how corpus stylistics applies corpus methodologies to stylistic research, and how digital technologies intersect with translation studies to facilitate comparative analyses of translated and cross-linguistic texts. The chapters on “Digital Humanities and Literary Studies” show how to build digitized resource repositories for classical texts, and use the chronological maps of Tang–Song literature to demonstrate how knowledge-graph technologies can connect authors, works, events, and other elements to visualize literary relationships. They also concretely present the applied practices of quantitative analysis and computational big data analysis within literary studies. They detail the trajectory of relevant research from the formulation of hypotheses to the determination and critical reflection of results, thereby showcasing the process of situating model variables and outcomes within humanistic, social, and historical discourse systems for interpretation and critical dialogue.

The chapter on “Digital Humanities and Comparative Literature” not only responds to Franco Moretti’s concept of “distant reading,” but also examines how large-scale textual analysis can reveal connections and differences across world literatures, underscoring the potential value of digital methods for global literary studies. It further explores the cross-media dimensions of comparative literature. In his search for the “laws of literary evolution” (Moretti, 2013, p. 50), Moretti argues that distant reading is particularly suited to cross-cultural literary comparison: by synthesizing and summarizing previous scholarship, it enables an empirical approach to literary history (Peng & Du, 2024, p. 140). As distant reading increasingly intersects with computational approaches, it gives rise to interdisciplinary digital humanities research, which primarily employs computer-assisted analysis to visualize empirical findings. Confronted with the challenge of processing massive multilingual corpora in a globalized context, researchers can, to a certain extent, overcome linguistic barriers by drawing on data-driven and multimodal resources—such as information visualization, topic modeling, and digital media—thereby enabling cross-textual relational analysis and greatly expanding the horizons of cross-cultural comparison and macro-level studies of cultural circulation.

In the field of historical geography, resources such as the China Biographical Database (CBDB) and digital cultural maps demonstrate how relational databases and geospatial databases can translate time-based historical narratives into spatial patterns of geographic distribution. Projects such as the “Virtual Forbidden City,” exemplified by the Qianlong Garden, and “Digital Dunhuang” further highlight the crucial role of digital humanities in the digitized preservation and restoration of cultural heritage. As the historical geographer Baker (2003) observed, understanding place requires a historical perspective, while understanding historical processes also depends on geographical inquiry. Through virtual reality technologies, vanished historical scenes can be given a new form of “afterlife” in digital space. The immersive experiences enabled by digital spatial technologies can reshape the study and dissemination of humanistic heritage, reflecting the practical significance of digital humanities for public cultural

communication and cultural heritage conservation.

The book's epilogue, "ChatGPT: Has the Era of General Artificial Intelligence Truly Arrived?", responds to the explosive growth of AI technologies since the 2020s by examining how Large Language Models (LLMs) are reshaping humanities research paradigms, academic ethics, and even modes of knowledge production. It offers a penetrating analysis of the challenges these developments pose to the humanities. If machines are now said to possess "reading and writing" capacities, where does the subjectivity of the humanities scholar reside? The editors emphasize that we should "recognize that the demands placed on humans in the future may shift from capacities for information gathering, integration, and coordination toward the subjective capacities for innovation and emotional experience" (Peng & Du, 2024, p. 176). This cautions readers that the ultimate aim of digital humanities is by no means to reduce the humanities to a mere adjunct of technology; rather, it is to defend the interpretive authority of the humanistic spirit in the age of algorithms, and to sustain a critical awareness that maintains productive tension between technological innovation and humanistic values.

Conclusion

With the proposition and advancement of the "New Liberal Arts" concept, higher education institutions are increasingly emphasizing the intersection of the humanities and sciences, as well as the cultivation of digital literacy. They are also actively responding to national digital-culture strategies, promoting the development of a China-contextualized academic system for digital humanities and training interdisciplinary talent. Against this backdrop, *An Introduction to Digital Humanities*, edited by Professor Peng Qinglong and Professor Du Lanlan, offers a systematic overview of the field's fundamental concepts and research pathways. Combining cutting-edge academic perspectives with theoretical depth, the book maintains a prudent and clear-headed stance regarding the discipline's positioning: it emphasizes the innovative significance of digital technology while firmly safeguarding the critical spirit of the traditional humanities. The volume proactively responds to the frontier issues of our era, revealing how digital technologies are reshaping modes of knowledge production and providing a systematic theoretical framework for understanding contemporary academic transformations. It not only helps beginners grasp the broader disciplinary landscape, but also offers humanities scholars valuable theoretical and practical guidance for conducting interdisciplinary research. At the level of teaching practice, the book integrates theoretical exposition with representative case studies to build actionable pedagogical pathways. Its tool-oriented design empowers interdisciplinary classrooms and advances the wider adoption of digital humanities education, thereby contributing to the cultivation of new forms of cross-disciplinary talent.

In an era when digitalization is sweeping across the globe, this book serves as an important window through which humanities researchers can engage with the frontier developments of digital humanities. It reminds us that the digital humanities is by no means an infatuation with technology; rather, it represents the humanities' self-renewal in an age of technological acceleration—reinterpreting itself, revitalizing its intellectual life, and demonstrating the enduring and distinctive value of the humanistic spirit amid continual

shifts in digital technology.

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