

AI in Digital and Applied Humanities

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Abstract

This conceptual paper explores the integration of Artificial Intelligence (AI) in digital and applied humanities through a philosophical and phenomenological inquiry. Employing Max van Manen's "Phenomenology of Practice" (2016), the study uses a comprehensive literature review as its data source. By engaging with firsthand experiences and diverse perspectives, the research critically examines AI's potential to foster collaboration between the fields while addressing epistemological, ontological, and ethical implications. The inquiry contributes to ongoing discourse on AI's impact in the humanities by promoting cross-disciplinary collaboration, intellectual growth, and social justice. This phenomenological exploration offers valuable insights into the transformative potential of AI integration in digital and applied humanities.

Key words : Artificial Intelligence (AI), Digital Humanities, Applied Humanities, Phenomenological Inquiry, Philosophical Exploration

INTRODUCTION

In an era marked by rapid technological advancements, the role of Artificial Intelligence (AI) in shaping the landscape of humanities research and practice has become a subject of growing interest and debate. The fields of digital humanities, characterized by the utilization of digital tools for research, and applied humanities, where practical solutions are derived from humanities knowledge, are particularly influenced by the advent of AI technologies. This conceptual paper seeks to bridge the gap between digital and applied humanities through a philosophical and argumentative exploration of AI integration, emphasizing its potential to foster cross-disciplinary collaboration, intellectual growth, and social justice.

The integration of Artificial Intelligence (AI) with digital and applied humanities has emerged as a growing area of scholarly interest and discussion. This integration is transforming research methodologies and creating new opportunities for interdisciplinary collaboration [20], [23]. Digital humanities, which employs digital tools for research, and applied humanities, where practical solutions are derived from humanities knowledge, are significantly impacted by the introduction of AI technologies [18], [13]. A new AI-focused digital humanities curriculum is proposed, aiming to prepare students for the evolving technological landscape and promote diversity in STEM fields [3]. This curriculum emphasizes human-centered AI development and civic engagement to mitigate potential social and economic impacts of emerging technologies [3]. This convergence of Artificial Intelligence (AI) with digital and applied humanities prompts inquiries into the potential advantages, obstacles, and ethical considerations surrounding the integration of AI in these multidisciplinary areas [14], [18]. In cultural heritage and archaeology, AI applications are advancing digitization efforts and opening new avenues for research, including deep learning and extended reality technologies [10]. These developments highlight the growing importance of AI in shaping the future of humanities research and education.

Recent research explores the integration of Artificial Intelligence (AI) in English language teaching and learning, highlighting its potential to enhance personalized education and language skills. AI tools can adapt to diverse learning styles, improve vocabulary acquisition, grammar, and pronunciation [8], [2]. As AI increasingly influences the landscape of digital and applied humanities, scholars are exploring the importance of visual arts and graphic design in enhancing English language learning and storytelling [16]. Digital storytelling coupled with AI emerges as a powerful tool for language education, offering pedagogical benefits and innovative possibilities [21]. While AI significantly enhances visual and audio elements in digital storytelling, human input remains crucial for narrative development and creative essence [1]. Despite the promising applications, challenges persist, including the need for robust infrastructure, teacher training, and addressing ethical concerns [8]. Moreover, the incorporation of AI in education raises questions about the future of learning environments and the role of technology in personalized education [13], [16]. The integration of AI in language education requires a balanced approach, where technology supports but does not replace human creativity and traditional interactive pedagogies [1], [8].

In essence, the convergence of AI and humanities domains presents opportunities to revolutionize research, communication, and education. However, it also necessitates a thorough examination of its implications on the epistemological, ontological, and ethical dimensions of these disciplines.

[5] explore the role of collaboration in advancing digital humanities scholarship, emphasizing the need for cross-disciplinary partnerships. Their work sets the stage for a more integrated approach to research in the face of emerging technologies like AI. Similarly, [19] examine the ethical dimensions of AI in the humanities, highlighting the importance of responsible development and implementation.

The integration of AI in applied humanities, particularly healthcare, has shown promise in improving outcomes and addressing real-world problems [11]. However, the increasing reliance on AI has also raised concerns related to bias and potential transformations in scholarship [9].

A phenomenological inquiry into the experiences of scholars and practitioners engaging with AI in digital and applied humanities can offer valuable insights into the lived realities of this convergence (Thompson & Saldanha, 2021). By examining the epistemological, ontological, and ethical dimensions of AI integration, such an approach can contribute to a deeper understanding of the role of AI in shaping the future of humanities research and practice.

[6] discuss the potential of Embodied Artificial Intelligence (EAI) to revolutionize the field, enabling more nuanced and context-sensitive intelligence in AI systems. As the field evolves, it is crucial to address ethical concerns and engage in critical dialogue about the role of AI in shaping the future of humanities.

In summary, these works collectively emphasize the importance of collaboration, ethical considerations, and innovative approaches to leveraging AI in the humanities. By adopting a phenomenological perspective and engaging with the lived experiences of scholars and practitioners, this conceptual paper seeks to bridge the gap between digital and applied humanities. It aims to contribute to the ongoing discourse on the impact of AI in humanities while promoting cross-disciplinary collaboration, intellectual growth, and social justice.

METHODOLOGY

For this phenomenological inquiry, the data would consist of a comprehensive review of existing literature and relevant texts that discuss the integration of Artificial Intelligence (AI) in digital and applied humanities. The data sources would include scholarly articles, books, conference proceedings, and other relevant academic publications. These materials would be carefully selected to represent a diverse range of perspectives and disciplines, including philosophy, digital humanities, applied humanities, and AI-related fields.

This phenomenological inquiry employs a methodological framework grounded in the work of Max van Manen (2016), who emphasizes the significance of understanding lived experiences through meaning-giving methods. Van Manen's "Phenomenology of Practice" highlights the importance of interpreting and reflecting on the lived experiences of individuals engaging with AI in digital and applied humanities. By drawing on van Manen's approach, the study aims to explore the epistemological, ontological, and ethical dimensions of AI integration in these interdisciplinary domains, as well as their potential benefits, challenges, and ethical considerations.

The phenomenological perspective serves as the foundation for the analysis of existing literature and texts, allowing for an exploration of the complex and multifaceted aspects of AI integration in digital and applied humanities. By engaging with the lived experiences and philosophical implications of scholars and practitioners in these fields, the inquiry contributes to the ongoing discourse on the impact of AI in the humanities, promoting cross-disciplinary collaboration, intellectual growth, and social justice.

A thorough literature review is a critical component of any research project, as it allows researchers to understand the current state of knowledge and identify gaps in the existing research [12]. In this case, a

comprehensive review of the literature would provide valuable insights into the epistemological, ontological, and ethical implications of AI integration in digital and applied humanities. By examining a diverse range of sources, researchers can gain a deeper understanding of the complex interplay between AI, digital humanities, and applied humanities, as well as the challenges, opportunities, and ethical considerations associated with this convergence.

Analyzing texts from multiple disciplines will enable the identification of converging and diverging themes, facilitating a richer understanding of the topic [7]. This approach will also allow researchers to engage with the philosophical dimensions of AI integration in the humanities, drawing on the works of scholars who have explored related issues from various perspectives.

So conducting a comprehensive literature review of relevant texts is an appropriate method for this phenomenological inquiry, as it will provide a solid foundation for understanding the lived experiences and philosophical implications of AI integration in digital and applied humanities. This approach is well-suited to address the research question and contribute to the ongoing discourse on the impact of AI in the humanities.

FINDING ANALYSIS

Data presentation in tables is generally more suitable for quantitative research, while phenomenological research, which is qualitative in nature, often uses narrative descriptions to present the data. However, to provide a structured overview of the selected sources, a summary table of the literature, table 1, can be constructed.

Table 1: An Overview

Title	Author(s)	Focus
Collaborative Research in the Digital Humanities	[5]	Role of collaboration in advancing digital humanities scholarship
Algorithms of Oppression: How Search Engines Reinforce Racism	[9]	Bias and potential transformations in scholarship due to AI
Big Data Analytics in Healthcare: Promise and Potential	[11]	AI applications in healthcare and their potential benefits
The Ethics of Artificial Intelligence in the Humanities	[19]	Ethical dimensions of AI in the humanities
Embodied Artificial Intelligence: Enabling the Next Intelligence Revolution	[6]	Potential of Embodied AI for revolutionizing AI systems
Phenomenology of Practice: Meaning-Giving Methods in Phenomenological Research and Writing	[22]	Phenomenological approach to understanding lived experiences

This table provides a concise overview of the selected literature, emphasizing their respective focuses and contributions to understanding the epistemological, ontological, and ethical dimensions of AI integration in digital and applied humanities.

Phenomenological approach of [22] focuses on understanding lived experiences through meaning-giving methods. Applying this framework to the exploration of AI integration in digital and applied humanities provides insights into the epistemological, ontological, and ethical dimensions of this convergence.

Firstly, the epistemological dimension addresses how knowledge is produced and understood in the context of AI integration in digital and applied humanities. Drawing from [5] emphasis on cross-disciplinary collaboration, the use of AI can enhance collaboration among scholars, fostering new forms of inquiry and knowledge production. Similarly, [11] work on AI applications in healthcare demonstrates the potential for AI to generate innovative solutions to real-world problems.

Secondly, the ontological dimension concerns the nature of being and reality in the context of AI integration in the humanities. This encompasses the transformative effects of AI on the nature of scholarship, as discussed by [9], who highlights the potential risks of bias and the need for responsible

development. Furthermore, [6] present the concept of Embodied AI, which challenges the traditional notions of AI by emphasizing the role of embodiment and situatedness in intelligence.

Lastly, the ethical dimension explores the moral implications of AI integration in digital and applied humanities. [19] address the ethical considerations surrounding AI, emphasizing the importance of responsible development and implementation. Additionally, van Manen's phenomenological approach foregrounds the lived experiences of scholars and practitioners, ensuring that ethical concerns are grounded in the real-world experiences of those engaged in AI-driven research and practice.

In conclusion, applying [22] phenomenological framework to the study of AI integration in digital and applied humanities sheds light on the complex interplay between AI, scholarship, and ethical considerations. This approach promotes a deeper understanding of the impact of AI on these interdisciplinary domains while emphasizing the importance of collaboration, intellectual growth, and social justice.

DISCUSSION

The integration of Artificial Intelligence (AI) in digital and applied humanities presents both opportunities and challenges, with significant implications for the production of knowledge and the nature of scholarship in these interdisciplinary domains. Employing a phenomenological approach, as outlined by [22] allows us to engage with the lived experiences and perspectives of scholars and practitioners, offering valuable insights into the epistemological, ontological, and ethical dimensions of AI integration.

Epistemologically, AI has the potential to enhance collaboration among scholars in digital and applied humanities, fostering new forms of inquiry and knowledge production. As argued by [5] cross-disciplinary partnerships are crucial for advancing scholarship, and AI can serve as a catalyst for such collaborations. Moreover, the work of [11] demonstrates how AI applications in healthcare can generate innovative solutions to real-world problems, highlighting the transformative potential of AI in applied humanities.

From an ontological perspective, AI integration in the humanities raises questions about the nature of scholarship and the potential risks associated with AI-driven research. [9] warns against the biases inherent in AI systems, emphasizing the need for responsible development and implementation. Additionally, [6] introduce the concept of Embodied AI, which challenges traditional notions of AI and underscores the importance of embodiment and situatedness in intelligence. This highlights the ongoing transformation of humanities scholarship in response to emerging AI technologies.

Finally, the ethical dimension of AI integration in digital and applied humanities demands careful consideration. [19] emphasize the importance of addressing ethical concerns related to AI, ensuring that its development and implementation align with the values and principles of the humanities. By engaging with the lived experiences of scholars and practitioners, as advocated by [22] we can ensure that ethical concerns are grounded in real-world experiences and that AI integration promotes social justice and intellectual growth.

It is essential to consider the practical implications of integrating AI in digital and applied humanities. To maximize the potential benefits and mitigate potential risks, several strategies can be employed:

1. **Multidisciplinary Collaboration:** Encouraging partnerships among scholars and practitioners from various disciplines, such as humanities, computer science, and ethics, can foster a comprehensive understanding of AI's implications and ensure responsible development.
2. **Training and Education:** Providing training and educational opportunities in AI, digital humanities, and ethics can equip scholars and practitioners with the necessary skills to navigate the evolving landscape of AI integration in the humanities.
3. **Ethical Guidelines and Frameworks:** Developing and adhering to ethical guidelines and frameworks, such as fairness, accountability, and transparency, can ensure responsible AI implementation and address potential biases.
4. **Critical Reflection and Discourse:** Encouraging ongoing critical reflection and discourse on AI integration can help identify emerging challenges, foster learning, and contribute to the continuous improvement of AI-driven research and practice in the humanities.

By implementing these strategies, scholars and practitioners can harness the transformative potential of AI in digital and applied humanities while addressing the epistemological, ontological, and ethical implications that arise from this convergence. Ultimately, this approach will contribute to the responsible development and implementation of AI, fostering intellectual growth and social justice within the context of the humanities.

So the integration of AI in digital and applied humanities presents both opportunities for innovation and challenges that must be addressed. By adopting a phenomenological approach and engaging with the lived experiences of scholars and practitioners, we can deepen our understanding of the epistemological, ontological, and ethical implications of AI integration. This contributes to the ongoing discourse on the impact of AI in the humanities while promoting cross-disciplinary collaboration, intellectual growth, and social justice.

CONCLUSION

This phenomenological inquiry into the integration of Artificial Intelligence (AI) in digital and applied humanities has provided valuable insights into the epistemological, ontological, and ethical dimensions of this convergence. Drawing from a comprehensive review of existing literature and guided by [22], we have explored the experiences and perspectives of scholars and practitioners engaging with AI in these interdisciplinary domains.

The findings of this inquiry suggest that AI has the potential to enhance collaboration and generate innovative solutions to real-world problems in digital and applied humanities. However, they also

highlight the need for responsible development and implementation of AI technologies, addressing potential biases and ethical concerns.

Through this exploration, we contribute to the ongoing discourse on the impact of AI in the humanities, emphasizing the importance of cross-disciplinary collaboration, intellectual growth, and social justice. As AI continues to transform the landscape of scholarship and practice in digital and applied humanities, it is crucial to engage with the lived experiences and philosophical implications of AI integration, ensuring that its development and implementation align with the core values and principles of the humanities.

In conclusion, this phenomenological inquiry provides a nuanced understanding of the complex interplay between AI, digital humanities, and applied humanities, fostering a deeper awareness of the benefits, challenges, and ethical considerations associated with AI integration. As researchers and practitioners continue to engage with AI technologies, we encourage ongoing reflection and dialogue on the potential of AI to enrich and transform the humanities while upholding the principles of equity, justice, and intellectual curiosity.

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