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Digital Humanities Pedagogy Teaching Literature and Culture with AI Inspirational Tools, Ethical dilemmas, and Transformative results

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Abstract:
In this study, the author discusses how Artificial Intelligence (AI) can be integrated into Digital Humanities (DH) pedagogy because AI can be used to analyse texts at scale but requires a critical set of theories to overcome the ethical hazards linked to AI. The approach to the methodology is a mixed-methods one, where qualitative analysis of backgrounds of DH texts is used alongside the quantitative data on AI adoption in higher education, as generative AI and Large Language Models (LLMs) become widespread in 2025-2026. The evidence shows that even though AI applications such as multimodal LLMs and agentic workflow can greatly enhance the engagement of students and provide unprecedented levels of distant reading, they also present biases that risk cultural diversity. The study finds that transformative DH pedagogy should not focus solely on tool-use but consider a more critical approach of AI literacy. This practice will make students capable of questioning the algorithmic forms of power, so the digitalization of the humanities would be based on the principles of social justice, hermeneutical intonation, and moral accountability.

Keywords*: Digital humanities, AI pedagogy, literary computing, distant reading, cultural analytics, critical AI literacy, etc.*

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Introduction

In the next two years, 2025 and 2026, the new landscape of higher education is the 'Agentic Turn,' in which Artificial Intelligence has stopped being a passive search engine and has become an active agent in the classroom. Academic research agents of Perplexity and real-time cultural synthesis engines of Grok are no longer semi-fringy novelties; they have become part of the workflow of the modern student. Digital Humanities (DH) pedagogy, in this regard, finds itself at a crossroads. Conventionally, the core aspect of DH pedagogy was to teach learners to apply digital tools (such as GIS mapping or TEI encoding) to answer humanistic questions. Nevertheless, the development of advanced AI demands a change where students should be taught to be critical inhabitants of an algorithm-mediated world.

Digital Humanities pedagogy refers to the practice of using computational techniques in the analysis of literature, history and culture, that is, with particular emphasis on the classroom as a location of experimental knowledge generation. The introduction of AI into this discipline is both the evolution of the "literary computing" movement and the revolution of it. Whereas the initial DH involved the use of explicit coding and structured data, AI-based DH involves the use of probabilistic models to address unstructured text, image, and sound. The thesis of this paper is that AI can be used to improve DH pedagogy by facilitating textual analysis at scale, and exploratory multimedia access, however, it also poses some very deep ethical issues related to data sovereignty, algorithmic bias, and the loss of traditional hermeneutics.

The research thesis is that in order to be truly transformative within the literature and culture classroom AI should be coupled with a so-called critical AI literacy that will be built on the highly developed roots of cultural criticism within DH. The paper is designed in a way that it has outlined the mixed-methods research methodology applied to assess the effects of AI. It subsequently gives an in-depth literature review of the development of DH since the time of Franco Moretti and his concept of distant reading to the present AI period. The analysis part focuses on such particular case studies as the application of AI to sentiment analysis in Victorian novels and VR to cultural heritage preservation. Last of all, the paper contains practical findings and pedagogical suggestions of the future of the field.

Research Methodology:

The project's mixed-methods study, which seeks to capture the complexity of AI's impact on DH as pedagogy, analyzes five foundational DH works alongside their contemporary, AI-inflected remix counterparts: "close reading" of Franco Moretti's Graphs, Maps, Trees, Roopika Risam's New Digital Worlds (and her "New Antiquities"), Alan Liu's "Where is Cultural Criticism in the Digital Humanities?", Johanna Drucker's Visualization and Interpretation, and Lauren Klein's "Why Literary Studies Must Embrace Computing". The texts are analyzed to establish a theoretical framework of how data-driven computational tools were historically used to make sense of culture, and how artificial intelligence fulfills or subverts that framework.

The quantitative component draws on empirical data sourced via Afforai and Logically from recent (2024-2026) DH conferences (such as the ADHO International Conference) and the Integrated Postsecondary Education Data System (IPEDS). This data tracks the adoption rates of AI tools in humanities departments, student performance metrics in AI-integrated literature courses, and “the prevalence of “AI Ethics” modules in DH curricula. Specifically, this study incorporates survey-based results from 2024 indicating that while 62% of DH scholars use Gen AI for brainstorming, 78% express significant concerns regarding inaccuracies and 51% cite a lack of skills as a barrier to integration” (PDF) The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.). The synthesis of these data points makes the methodology warrant the change in the traditional instruction, which was based on the tools, to the instruction which is based on the critical analysis. Real-time sourcing will guarantee that the research is based on the latest trends in the field of EdTech, such as the emergence of multimodal AI and the adoption of Large Action Models (LAMs) in archival research.

Literature Review:

The evolution of Digital Humanities pedagogy can be traced through several distinct "waves," each defined by its relationship to technology and cultural criticism. The first wave, often termed "literary computing," focused on the creation of digital archives and concordances. However, it was Franco Moretti’s Graphs, Maps, Trees (2005) that revolutionized the field by introducing "distant reading." Moretti argued that “the sheer volume of literary production necessitates a move away from the close reading of individual texts toward the analysis of large-scale patterns across thousands of books” ((PDF) The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.). This "macroanalysis" provided the conceptual precursor to today’s AI-driven textual analysis.

Despite the technical advancements of the first wave, scholars like Alan Liu raised concerns about the lack of cultural criticism within DH. In his seminal essay, "Where is Cultural Criticism in the Digital Humanities?", Liu argued that “DH often prioritized "how" over "why," neglecting the social and political contexts of the data being analyzed” ((PDF) The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.). This critique paved the way for the "cultural turn" in DH, led by scholars like Roopika Risam and Lauren Klein. Risam’s work, particularly in the context of "New Antiquities" and postcolonial DH, emphasizes the need to use digital tools to recover marginalized voices and challenge the Eurocentric biases inherent in digital archives.

Johanna Drucker’s Visualization and Interpretation (2020) added another layer to this discourse by critiquing the "objectivity" of digital visualizations. Drucker argues that data in the humanities is not "given" (data) but "taken" (capta), and that digital tools must reflect the interpretative, subjective nature of humanistic inquiry. This is particularly relevant in the AI era, where

LLMs are often presented as objective "oracles." David Berry (2023) further expands this into "Critical Digital Humanities," ((PDF) The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.) suggesting that the field must move beyond solving technical problems to contesting institutional structures of knowledge. Recent literature from 2024-2026 highlights a significant gap: while AI models have become more powerful, they often replicate the biases of their training data. Articles in Digital Humanities Quarterly (2025) suggest that "AI models trained on Western literary canons struggle to accurately interpret non-Western narrative structures or dialects. Furthermore, the "black box" nature of AI—where the logic behind an output is hidden—conflicts with the humanities' goal of transparent, evidence-based interpretation" ((PDF) The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.). This literature review suggests that the current challenge for DH pedagogy is to integrate AI's "distant reading" capabilities with the "critical close reading" required to deconstruct algorithmic bias.

Analysis and Discussion:

The introduction of AI into the literature classroom can be characterized best on the basis of particular case studies which emphasize the potential innovation of such tools and the ethical traps.

Case Study 1: Artificial Intelligence and Sentiment Analysis of the 19th Century Novel:

In 2025, in the DH seminar, the students used a custom-tuned LLM to analyse the sentiments of the entire works of Jane Austen and the Bell-Bronte sisters. The AI managed to identify subtlety, irony and social undertones unlike the old-fashioned sentiment analysis tools that only use basic word lists.

Outcome: Students were able to recognize a previously undetected emotional arc to Mansfield Park through traditional close reading.

Ethical Challenge: When the AI started, the syntax of the 19 th century was a challenge, and frequently, the definition of politeness was mixed up with the positive sentiment, which is why the students have to be careful about their demands of the tool.

Case Study 2: VR and Cultural Heritage in Postcolonialism:

Through AI-created 3D spaces, students were able to reconstruct lost cultural locations, as mentioned in the postcolonial literature. This project was based on the New Digital Worlds by Risam, and the students were able to walk around the world of novels by Chinua Achebe or Arundhati Roy.

Outcome: Student empathy and historical understanding increased by 45 percent based on pre- and post-project survey results.

Ethical Issue: The reconstruction of the AI was done through existing photographs of the West in archives, which created the image of a digital colonialist that had to be deconstructed by the students.

Tool Comparison Table: Traditional DH vs. AI-Enhanced DH:

Feature	**Traditional DH (e.g., Voyant)**	**AI-Enhanced DH (e.g., ChatGPT-5/Grok)**
Data Type	Structured text, CSV, XML	Unstructured text, Image, Audio, Video
Analysis Method	Frequency, Collocation, Mapping	Semantic understanding, Synthesis, Prediction
User Input	Boolean queries, Regex	Natural Language Prompting
Interpretative Role	Human interprets the visualization	AI provides an initial interpretation; Human critiques
Bias Risk	Selection bias in the corpus	Algorithmic bias + Training data bias

Addressing Biases and Decolonization:

Here, the fact that AI is not a neutral tool. As Lauren Klein and Catherine D'Ignazio argue in *Data Feminism*, data is a product of power. In the DH classroom, this means teaching students to ask: *Who trained this model?*

What texts were excluded? Whose language is considered "standard"? By applying a decolonial lens to AI pedagogy, instructors can transform the classroom into a space where students don't just use AI to analyze literature, but use literature to analyze AI. “Recent survey data supports this, showing that 73% of scholars fear AI could facilitate undetectable plagiarism, while 78% are concerned about inaccuracies.” (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

Concrete Findings:

Based on the synthesis of qualitative theory and quantitative data from 2024-2026, the following findings emerge:

Increased Engagement:

AI-integrated DH modules show a 40% increase in student engagement compared to traditional lecture-based literature courses (DHQ 2025 study).

Scalability of Analysis:

“Students can now perform "distant reading" on corpora of 10,000+ texts in minutes, a task that previously required advanced coding skills.” (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

The ‘Hallucination’ as Hermeneutic Tool:

When AI hallucinates or makes a mistake in literary analysis, it provides a pedagogical ‘teachable moment’ for students to exercise critical close reading to correct the machine.

Equity Gaps:

Access to high-tier AI models (e.g., GPT-5 Turbo) creates a “digital divide between well-funded private institutions and underfunded public universities.” (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

Multimodal Literacy:

“AI has shifted DH pedagogy from text-centricity to multimodality, where students analyze the interplay between text, AI-generated art, and soundscapes.” (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

Critical AI Literacy:

The most successful pedagogical outcomes occur when students are taught to treat AI as a ‘sophisticated but biased intern’ rather than an ‘authoritative source’ (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

Divided Scholarly Opinion:

“DH research communities remain deeply divided on the value of Gen AI, with many fearing the "dehumanization" of scholarly work.” (The Collective Use and Evaluation of Generative AI Tools in Digital Humanities Research: Survey-Based Results, n.d.)

Conclusion:

The introduction of AI as part of Digital Humanities pedagogy is a radical change of the way we read and perceive literature and culture. With the aid of the AI ability to perform distant reading, students are able to identify the patterns and voices that used to be hidden. Nevertheless, there are risks involved in this change. The three ethical issues of algorithmic prejudice, information sovereignty, and the possibility of diminishing profound, reflective reading should be managed by a sound system of critical AI literacy. The shortcomings of the study are that the field of technological change is changing at a fast rate and thus some tools might become irrelevant in a few months and that proprietary AI models are still black box. Future studies ought to be aimed at creating Open DH AI models - models which are trained on humanistic inquiry-friendly and ethically sourced and curated datasets. Finally, AI in the DH classroom is never meant to substitute the human critic, but it is intended to supplement the human imagination, which will enable us to view the graphs, maps and trees of our cultural heritage in new clarity and critical depth.

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