

Examining the Decline in Traditional Academic Reading Practices in the Age of ChatGPT: A Secondary Data Analysis

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Abstract: *The proliferation of artificial intelligence (AI)-based educational tools has significantly transformed students' information-seeking behaviors and academic resource utilization. This study examines the relationship between the growing use of AI tools, particularly ChatGPT, and the reported decline in engagement with traditional academic reading materials, including textbooks, scholarly monographs, and peer-reviewed journal articles. Employing a secondary data analysis approach, the research synthesizes findings from empirical studies, institutional surveys, policy reports, and literature on digital learning and reading behavior trends.*

Using comparative and thematic analysis, the study explores correlations between increased reliance on AI-based tools and shifts in depth-oriented reading practices, cognitive engagement, and information processing strategies. The findings indicate a measurable movement toward concise, AI-mediated knowledge acquisition and summary-based learning, accompanied by reduced sustained critical and analytical reading. While AI tools enhance accessibility, efficiency, and personalized learning experiences, their widespread adoption may contribute to the weakening of deep reading competencies and long-form academic engagement.

The study highlights the need for pedagogical frameworks that integrate AI technologies while preserving critical literacy skills and academic rigor, contributing to ongoing discourse on AI's evolving impact on higher education.

Keywords: Academic Reading Practices; Artificial Intelligence in Education (AIEd); ChatGPT; Deep Reading; Digital Learning Environments; Generative Artificial Intelligence; Student Learning Behavior.

I. INTRODUCTION

The emergence of generative artificial intelligence (AI) tools, such as ChatGPT, has accelerated access to academic content and reshaped how students interact with scholarly materials. These tools provide instant summaries, explanations, and writing assistance, significantly altering information-seeking behaviors and study strategies in higher education. While AI offers efficiency and personalization, it also introduces challenges regarding sustained engagement with traditional academic texts, critical thinking, and analytical reasoning (Kasneji et al., 2023; Cotton et al., 2023; Zawacki-Richter et al., 2019).

1.1 Problem Statement

The rapid integration of ChatGPT into educational settings has fundamentally changed students' academic reading behaviors. Emerging evidence indicates a decline in engagement with textbooks, scholarly monographs, and peer-reviewed journal articles as students increasingly rely on AI-generated summaries and explanations. Despite these trends, there is limited empirical understanding of how AI tools affect deep reading competencies, long-form



comprehension, and sustained intellectual effort. Existing research focuses primarily on AI's efficiency, digital reading behavior, or academic integrity concerns without synthesizing evidence on its impact on traditional reading practices. This creates a critical challenge for educators seeking to balance AI benefits with the preservation of cognitive engagement and academic rigor.

1.2 Research Gap

While literature extensively addresses AI in education and digital reading trends, several gaps remain:

1. Limited focus on sustained engagement with traditional academic reading materials.
2. Insufficient evidence on how AI-mediated learning affects deep reading and critical thinking skills.
3. Scarcity of secondary data analyses that synthesize findings across studies, surveys, and policy reports.

1.3 Research Objectives

1. Examine trends in student engagement with traditional academic reading materials.
2. Investigate the impact of AI tools on deep reading practices, critical thinking, and analytical engagement.
3. Synthesize empirical evidence on AI-mediated learning and reading behavior changes.
4. Provide pedagogical recommendations for integrating AI without compromising academic rigor.

1.4 Research Questions

1. How has the adoption of AI tools, particularly ChatGPT, influenced engagement with traditional academic reading materials?
2. In what ways does AI use affect deep reading competencies, including critical thinking and sustained attention?
3. What patterns emerge from existing studies regarding AI reliance and reading behavior?
4. How can higher education integrate AI effectively while preserving critical literacy and long-form engagement?

II. LITERATURE REVIEW

2.1 AI in Education and Academic Practices

Generative AI tools like ChatGPT have been widely adopted in higher education for summarization, explanation, and feedback tasks. While these tools enhance accessibility and personalization, they also raise concerns about academic integrity, authorship authenticity, and reduced cognitive effort (Kasneci et al., 2023; Cotton et al., 2023; Baidoo-Anu & Ansah, 2023).

2.2 Digital Reading and Shifts in Academic Engagement

Students increasingly prefer digital formats over print, which promotes skimming, non-linear reading, and summary reliance (Delgado et al., 2018; Liu, 2005). AI-generated summaries intensify these tendencies, reducing opportunities for inferential reasoning, argument tracing, and critical engagement (Cotton et al., 2023; Wolf, 2018).

2.3 AI Use and Cognitive Processing

AI tools can scaffold higher-order thinking when used deliberately, but over-reliance may diminish deep cognitive engagement, metacognitive monitoring, and independent problem-solving skills (Kasneci et al., 2023; Baidoo-Anu & Ansah, 2023).

2.4 Ethical and Pedagogical Implications

AI complicates assessment models, prompting a need for pedagogical redesign to prioritize reflective reading, process-based learning, and critical evaluation of AI outputs (Cotton et al., 2023; Kasneci et al., 2023).



2.5 Identified Gaps

Limited research specifically examines AI's effect on traditional reading practices and long-form scholarly engagement, highlighting the need for structured synthesis across studies and institutional data (Zawacki-Richter et al., 2019).

Table 1: Summary of Key Literature on AI, Digital Reading, and Academic Engagement

Author(s) & Year	Study Type	Focus Area	Key Findings	Relevance to Present Study
Zawacki-Richter et al. (2019)	Systematic Review	AI in Higher Education	AI applications focus largely on adaptive systems and administrative efficiency; limited emphasis on deep cognitive engagement	Establishes foundational understanding of AI integration in higher education
Delgado et al. (2018)	Meta-analysis	Digital vs. Print Reading	Reading comprehension tends to be lower in digital formats, particularly for informational texts requiring deep processing	Supports argument regarding decline in deep reading in digital contexts
Liu (2005)	Longitudinal Study	Digital Reading Behavior	Increased skimming, browsing, and non-linear reading patterns in digital environments	Demonstrates behavioral shifts away from sustained academic reading
Wolf (2018)	Theoretical/Neuroscientific Analysis	Deep Reading & Cognitive Development	Digital media may rewire cognitive pathways, reducing reflective and analytical reading capacity	Provides theoretical basis for concerns about deep reading erosion
Kasneji et al. (2023)	Conceptual & Analytical Study	ChatGPT in Education	AI tools can scaffold learning but risk reducing independent cognitive effort if overused	Directly informs analysis of AI-mediated learning
Cotton et al. (2023)	Policy & Pedagogical Analysis	Academic Integrity & ChatGPT	AI-generated content challenges traditional assessment and authorship authenticity	Highlights pedagogical implications of AI over-reliance
Baidoo-Anu & Ansah (2023)	Exploratory Study	Generative AI in Teaching & Learning	ChatGPT enhances efficiency but may weaken critical thinking if used as substitute	Supports claims about summary-based learning replacing deep engagement

III. METHODOLOGY

3.1 Research Design

This study employs **secondary data analysis** to synthesize findings from empirical studies, institutional surveys, policy reports, and scholarly literature on AI adoption, digital learning, and academic reading practices.

3.2 Data Sources

Data were drawn from:

Peer-reviewed journals (Scopus-indexed and Google Scholar)

Institutional and national surveys on student learning behavior

Policy reports and white papers on AI in higher education



3.3 Analytical Framework

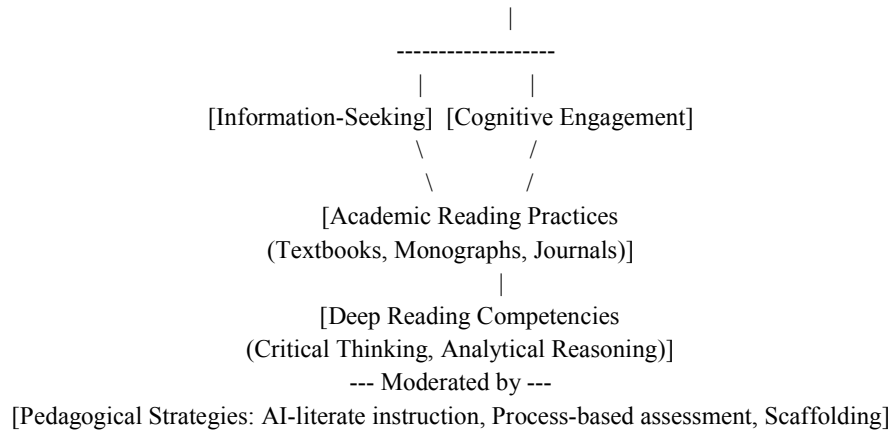
A **comparative and thematic analysis** approach was used to:

Identify trends in student engagement with traditional academic reading materials.

Examine correlations between AI adoption and shifts in deep reading practices.

Highlight pedagogical implications for integrating AI while preserving academic rigor.

[AI Tool Adoption (ChatGPT, Generative AI)]



Conceptual Framework Description

Core Idea:

The framework illustrates the relationship between **AI tool adoption** and **changes in student academic reading behavior**, highlighting the potential impacts on **deep reading competencies** and **learning outcomes**, as well as the role of **pedagogical interventions**.

Components:

1. **AI Tool Adoption (Independent Variable)**
 - Generative AI tools (e.g., ChatGPT)
 - Usage patterns (summary generation, question answering, text assistance)
2. **Mediating Factors**
 - Information-seeking behavior (skimming, reliance on summaries)
 - Cognitive engagement (depth vs. superficial processing)
 - Reading format preferences (digital vs. print)
3. **Academic Reading Practices (Dependent Variable)**
 - Engagement with textbooks, monographs, and scholarly articles
 - Critical analysis and sustained reading
4. **Outcomes**
 - Deep reading competencies (critical thinking, analytical reasoning)
 - Learning efficiency and accessibility
5. **Moderating/Pedagogical Strategies**
 - AI-literate instruction
 - Process-based assessment
 - Scaffolding for critical engagement



Flow:

AI Tool Adoption → Changes in Reading Behavior → Effects on Deep Reading Competencies → Learning Outcomes
Pedagogical Strategies act as moderators to mitigate negative impacts and enhance positive outcomes.

IV. CONCLUSION

The proliferation of AI tools, particularly ChatGPT, has significantly transformed students' engagement with academic resources in higher education. This study highlights a measurable shift from traditional, sustained reading toward concise, AI-mediated knowledge acquisition. While AI enhances efficiency, accessibility, and personalized learning, it poses risks to deep reading competencies, critical thinking, and long-form engagement.

Balanced AI integration requires deliberate instructional strategies, AI-literate pedagogy, and process-based assessment to ensure students retain essential academic skills. By synthesizing empirical studies, institutional surveys, and policy reports, this study provides actionable insights for educators and institutions seeking to optimize AI use while safeguarding deep reading, analytical reasoning, and scholarly engagement.

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