Chapter 9
A GenAI Ontology for Academic Literacies Teaching and Learning Practices

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ABSTRACT

In the ever-evolving higher education landscape, the integration of AI, particularly Generative AI (GenAI), is causing a profound shift. This chapter explores how GenAI is reshaping teaching, learning, and academic literacies. Academic literacies facilitators now navigate a diverse terrain, bridging traditional materials, digital resources, and AI-enhanced texts. They cultivate scholars' proficiency in GenAI tools and pioneer innovative teaching methods. This chapter introduces a GenAI ontology to support this transformative journey. It equips facilitators and students to use GenAI effectively, fostering tailored teaching methods and personalised literacies assessments. In summary, this chapter presents GenAI's potential to innovate, enhance accessibility, and elevate academic prowess in higher education.

INTRODUCTION

Undeniably, GenAI, as well as non-Generative AI, are increasingly prominent in pedagogic discourses (Escotet, 2023). In this context, academic literacy facilitators positioned at the intersection of disciplinary knowledge and the tools scholars apply to contemplate, interpret and express new knowledge, are equally confronted with GenAI technologies thrusting our field into the future. Consequently, new

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discourses are emerging in the field of academic literacy prompting practitioners and researchers to incorporate AI ethically and practically into the ways students interact with disciplinary knowledge. Given public rhetoric and scholarly outputs examining the impact of GenAI in disciplinary spaces, the voices around academic literacy appear to be of hope and innovation combined with dread and fear.

On the one hand, there is the acknowledgement that AI is beneficial for developing scholars as novice disciplinary members. In de Souza et al. (2024), GenAI capabilities to create images are identified as effective pedagogical tools for enhancing scholars' mastery of complex physics concepts. Li (2023) reasons that GenAI, including ChatGPT, is enabling the development of students' self-efficacy, academic motivation and critical creative thinking. In this light, GenAI presents benefits for teachers and learners alike. Inversely, there are also cohorts of educators who bemoan perceptions of GenAI's threat to the academic project.

As exemplification of the aforementioned concerns, a senior director of academic affairs at Wits University in South Africa proposed that when students craft academic texts, they should reference specific sections within their work that have been bolstered by Large Language Models like ChatGPT and Google's Bard (Lebuso, 2023). While the practice of citation is an unavoidable convention for senior and junior scholars, the director's proposition poses further questions. For instance, akin to novice students, senior scholars are also frequent users of ChatGPT and other Large Language Models (LLMs) in their research endeavors.

According to de Silva and El-Ayoubi (2023), ChatGPT's capability to produce summaries of research methodology and evaluate both qualitative and quantitative data speeds up the process from conceptualizing research to its actual implementation and validation. As is evident, there are benefits in ChatGPT for seasoned researchers and scholars. In Chen et al. (2023), novice scholars report learning benefits that mirror the analytical profits identified by de Silva and El-Ayoubi (2023). Some of the intellectual advantages highlighted from novice scholars' outlooks include ChatGPT's utility in forming disciplinary ideas (Chen et al., 2023).

Early university entrants distinguish between the extended logical process of constructing ideas through Google's search engine and ChatGPT's rapid interpretation of students' questions around discipline-specific topics (Chen et al., 2023). Although the critical thinking abilities of junior and senior students may vary when attempting to use GenAI for knowledge production, all students, regardless of experience level, have similar goals when it comes to communicating in disciplines.