Chapter 8
Integration of Artificial Intelligence in Blended Business Education:
Fostering Critical Thinking and Student Engagement

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ABSTRACT

Blended learning is a dominant instructional model in business education, offering flexibility and accessibility while posing challenges around student self-regulation, engagement, and critical thinking. Artificial Intelligence (AI) integration within virtual learning environments offers opportunities to address these issues by personalizing support, scaffolding learning, and enhancing interaction. However, without thoughtful design, AI risks promoting automation bias, surface learning, and reduced critical thinking. This chapter proposes a framework for integrating AI into blended learning, grounded on three pillars: purposeful AI tools' alignment with cognitive outcomes, integrated design across modalities, and scaffolding for self-regulation and collaboration. A case study from a Strategic Management course in a UK

DOI: 10.4018/979-8-3373-3815-6.ch008

Business School illustrates how AI functionalities can support deeper learning and engagement without eroding rigor. The chapter offers a pathway for leveraging AI while preserving analytical and ethical reasoning in business education.

1. INTRODUCTION

Blended learning has become a cornerstone of business education, merging online flexibility with the relational strengths of face-to-face interaction (Arbaugh et al., 2009; Garrison & Vaughan, 2008; Rasheed et al., 2020). To improve the entire learning experience, blended learning combines cutting-edge technological tools with conventional teaching methods (Benson et al., 2011). Due to the COVID-19 epidemic, universities around the world have experimented with different types of blended learning. This form of learning has proven to be beneficial for students as it provides them with personalized learning paths, accessibility, and flexibility (Belur & Bentall, 2024; Kumar et al., 2021; Joshi et al., 2023; Fathahillah et al., 2023). However, it has been also subject to criticisms as it imposes significant demands on students' self-regulation, digital competencies, and critical engagement (Rasheed et al., 2020; van der Stap et al., 2024). While some studies claim that interactive, reflective, and discussion-based activities in blended learning can boost learning outcomes (Belur & Bentall, 2024; Fathahillah et al., 2023), other studies find no discernible benefit or even difficulties because of ineffective instructional design or challenges in maintaining student motivation and engagement (Sareen & Mandal, 2024; Pavlidou et al., 2021).

In this line, recent developments in artificial intelligence (AI) are being investigated as possible remedies to these problems in order to improve the efficacy of blended learning settings (Fathahillah et al., 2023; Lee et al., 2024; Alshahrani, 2023). The expanding incorporation of AI is transforming blended learning systems. In this context, AI is increasingly perceived as a crucial facilitator, and educational institutions are under pressure to provide more flexible, effective, and captivating blended learning experiences (Lee et al., 2024). Rethinking instructional design is urgently needed by these universities, as seen by the growing use of generative AI tools in education such as ChatGPT and automated feedback systems. AI-enhanced blended learning is of paramount importance for business higher education institutions looking for scalable, customized, and data-driven solutions. But given how quickly these tools are being adopted, it is necessary to critically assess their educational consequences. Fathahillah et al. (2023) stressed that AI integration into the blended learning approach could further enhance the benefits of this type of learning and address its challenges. AI is transforming education by offering personalized support,