

Chapter 15

Preparing Citizens for the Future of Digital Literacy and AI: With a Focus on Indonesian EFL Teachers

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ABSTRACT

Artificial intelligence (AI) is revolutionizing education worldwide, demanding a redefinition of digital literacy to prepare students for an AI-dominated era. This chapter explores these dynamics with a focus on Indonesian English as a Foreign Language (EFL) teachers, who face unique challenges in bridging advanced AI technologies with culturally grounded pedagogy. Beyond technical skills, digital literacy now requires educators to evaluate AI outputs critically, address ethical considerations such as data privacy and algorithmic bias, and integrate technology in ways that uphold accessibility and equity. In Indonesia, where disparities in digital infrastructure and teacher readiness are prevalent, EFL educators navigate complex decisions about deploying adaptive learning tools and automated assessments while ensuring inclusive and meaningful learning experiences. By combining global perspectives with localized strategies, this chapter presents actionable insights to empower educators to harness AI's potential while maintaining the humanistic essence of teaching.

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INTRODUCTION

The 21st century has ushered in a rapid technological evolution, with AI emerging as a pivotal driver of this transformation. AI has permeated nearly every facet of human life, including industrial automation, healthcare, transportation, and education. Among these domains, its impact is perhaps most profoundly felt in classrooms, where technology is reshaping not only how students learn but also how educators teach and engage with their learners (Guo & Yu, 2023; Maisaiah, 2024). As AI continues to advance, the educational landscape must confront a critical challenge to redefine the concept of digital literacy to equip individuals with the skills and understanding necessary to thrive in an era shaped by transformative technologies (Taufikin et al., 2024).

Digital literacy, once understood as the basic ability to operate computers and navigate the internet, has evolved into a far more complex construct. The age of AI encompasses technical skills, such as understanding machine learning algorithms and data analysis, as well as the ability to critically assess and responsibly manage sophisticated technologies that increasingly influence daily decision-making (Karrour & Elshaikh, 2023). This evolution is particularly significant for EFL education, where the adoption of AI tools must not compromise the humanistic and context-driven principles that underpin effective teaching and learning (Alam et al., 2022).

In the context of Indonesia, the intersection of AI and EFL education presents unique challenges and opportunities. As a nation characterized by cultural diversity and unequal access to technology, Indonesia's educational system must navigate significant hurdles, including disparities in digital infrastructure and the varying readiness of teachers to integrate advanced tools into their classrooms (Bezzina & Dingli, 2024; Yeter et al., 2024). English, as a global lingua franca, has long been a vital component of Indonesia's curriculum. However, the rise of AI-powered tools, ranging from language learning apps and automated assessment systems to virtual teaching assistants, places unprecedented demands on Indonesian EFL teachers. They are tasked with integrating these cutting-edge technologies into their pedagogical practices while ensuring that learning remains accessible, equitable, and relevant to all students, regardless of their geographic or socio-economic background (Chisom et al., 2024).

This chapter delves deeply into how AI can be effectively integrated into EFL education in Indonesia and how a robust understanding of digital literacy can equip students for an increasingly digitalized world. Importantly, digital literacy in the AI era transcends technical competencies, requiring educators and students alike to grapple with ethical considerations, such as privacy, data security, and the potential biases embedded in AI algorithms. These issues underscore the need for Indonesian EFL teachers to cultivate not only a critical understanding of AI but also a forward-

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