


## Chapter 8

# From Digital Literacy to AI Literacy in Language Teaching: Embracing the Artificial Intelligence Age

**Galip Kartal**

 <https://orcid.org/0000-0003-4656-2108>  
Necmettin Erbakan University, Turkey

### ABSTRACT

*The overarching goal of this chapter is to provide language educators and researchers with valuable insights and practical guidance for navigating the rapidly changing landscape of AI in education. This chapter investigates the transition from digital literacy to AI literacy in language teaching, a shift necessitated by the rapid evolution of AI-assisted technologies. Beginning with a comprehensive overview of digital literacy in the context of language teaching, the chapter explores the associated pedagogical practices, benefits, and challenges. The discussion then moves to the concept of AI literacy, an emerging necessity in education. The chapter delves into the implications of integrating AI technologies into language teaching and learning, stressing the potential of AI to revolutionize language education. The chapter encourages further research on the long-term impacts of AI literacy on language learning outcomes and the effectiveness of different strategies for AI literacy integration.*

### INTRODUCTION

In the age of AI, the concept of digital literacy is evolving to address the challenges posed by data-driven automated technologies. Previously, digital literacy focused on equipping individuals with skills to use technology effectively, but now the emphasis

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is shifting towards understanding and navigating algorithmic systems. This new form of literacy, termed “AI literacy,” encompasses various aspects such as working with algorithmic systems, finding ways to bypass them, and recognizing when human intervention is necessary. Developing AI literacy is crucial for contemporary citizenship and to prevent digital inequality and disadvantage.

AI literacy requires a collaborative approach between families, educators, and young people themselves, as it is a complex and ever-changing field. Even experts in computer science may struggle to comprehend the inner workings of these systems. Therefore, it is important for adults and young people to engage in co-learning, acknowledging that there is much to be learned together. Several initiatives and projects are already underway to cultivate algorithmic awareness, including the creation of toolkits and activities that enable young people to explore and understand the influence of algorithms in their digital experiences.

By fostering AI literacy, individuals can not only navigate digital systems more effectively but also become actively involved in shaping their digital futures. This awareness may lead to direct democratic participation in addressing algorithmic injustices and promoting algorithmic activism. Recent instances of student protests against automated exam grading and algorithmic targeting of body image and mental health messages exemplify the potential impact of algorithmic literacy in the lives of young people. As we look to the future, the DigiGen community should continue contemplating and advancing these topics.

Digital literacy, broadly defined as the ability to use digital technologies effectively for learning and communication, has become increasingly important in language teaching and learning in the 21st-century classroom (Kaeophanuek et al., 2019; Reddy et al., 2020). This concept embodies more than just the basic technical skills required to use digital tools; it also encompasses the ability to critically evaluate digital information, create digital content, and communicate effectively in online environments (Lankshear & Knobel, 2006; Polizzi, 2020). Language educators have leveraged this paradigm to facilitate collaborative learning, improve students’ language skills, and prepare them for the global digital society.

In a review article on literacy types, Sur (2022) identified various literacies related to technology, highlighting the importance of acquiring skills in the digital era. These literacies encompass a range of domains such as network/web/internet/hyper literacy, computer literacy, information and communication technology (ICT) literacy, digital literacy, digital assessment literacy, digital media literacy, digital advertising literacy, e-literacy, electronic literacy, news literacy, news media literacy, software literacy, video game literacy, data literacy, agricultural literacy, and advertising literacy. Each of these literacies represents a distinct set of knowledge and competencies that individuals need to navigate and effectively engage with technology and its

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