


# Chapter 2


## Cultivating AI Literacies: A Taxonomy for Sociocultural Praxis and Academic Transformation

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### ABSTRACT

*This chapter introduces *The Dimensions of AI Literacies taxonomy* (Gunder et al., 2024), a socioculturally grounded model for guiding ethical, accessible, and adaptable engagement with artificial intelligence (AI) in education. Building on literacy studies (Gee, 1999; Street, 1984), digital literacies (Belshaw, 2012), and open remix culture (Gunder, 2021), the authors frame AI literacies as plural, evolving combinations of skillsets and mindsets that differ across context, role, and community. Eight interwoven dimensions—cultural, cognitive, constructive, communicative, confident, creative, critical, and civic—are outlined to show how they emerge in*

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*practice and form “constellations of AI literacies” that strengthen institutional and community capacity. Using a culinary metaphor and a values-driven lens, the chapter reframes AI integration as a cultural and pedagogical opportunity, inviting educators, designers, and leaders to co-create AI-enabled ecosystems that are relational, reflective, resilient, and responsive to change.*

## INTRODUCTION

Amidst the rapid reshaping of the educational landscape through the onset of artificial intelligence (AI), institutions and educators are challenged to respond to AI’s presence not only with technical adroitness but with strategic foresight, ethical care, and culturally affirming approaches. While many early institutional responses to AI have emphasized basic tool adoption or compliance checklists, such approaches risk reducing AI readiness to a singular threshold, reinforcing a binary of “AI literate” versus “AI illiterate.” This chapter argues for a more expansive and socioculturally grounded model of engagement—one that treats AI literacies as plural, contextually situated, interconnected, and evolving.

Building on theoretical lineages from (Gee, 1999; Street, 1984), digital literacies (Belshaw, 2012), and open remix culture (Gunder, 2021), the authors introduce the *Dimensions of AI Literacies* taxonomy (Gunder et al., 2024): a collection of eight interwoven literacies that reflect the formation of “constellating AI literacies,” or combinations of skillsets and mindsets expressed in AI-mediated educational practice (Gunder, 2024; Gunder et al., 2024). Remixed from Doug Belshaw’s *The Essential Elements of Digital Literacies* (2012) and encompassing eight interconnected dimensions—cultural, cognitive, constructive, communicative, confident, creative, critical, and civic AI literacies—these literacies emerge not as discrete competencies to be mastered but as patterns of growth that shift in context, cohere through reflection, and adapt across roles and learning ecosystems (Gunder et al., 2024).

The taxonomy was informed by a qualitative study using the portraiture method (Lawrence-Lightfoot & Davis, 1997) that coalesced the perspectives, practices, and insights of 61 educators representing 23 countries across six continents. In parallel with this inquiry, professional-learning activities and community-engagement initiatives conducted from 2023 to 2025 reached more than 400 educators in 15 countries through workshops, open calls, and pilot implementations. The taxonomy helps educators synthesize recurring patterns in practice and has been iteratively refined through practitioner feedback and real-world application in diverse institutional contexts.

Drawing from collective experience as educational developers, designers, researchers, faculty, and leaders, the authors frame *AI literacies* not merely as technical

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