Chapter 6
Critical Digital Competencies and Pedagogical Frameworks Within Human Rights Jurisprudence:
Democratic Accountability and Policy Implications

Ashraf Alam
https://orcid.org/0000-0001-6178-1187
Alliance University, Bengaluru, India

ABSTRACT

This chapter reframes digital literacy as a justiciable facet of the right to education. Blending learning science and ethics, it defines competencies that unite critical judgment, data literacy, multimodal authorship, computational reasoning, safety, and civic responsibility. Using the A4A lens of availability, accessibility, acceptability, and adaptability, it links pedagogy to enablers such as teacher capacity, universal design, trustworthy analytics, and multilingual content. Comparative examples from Finland, Singapore, India, and sub-Saharan Africa show divergent governance and equity gaps. The analysis examines datafication, algorithmic bias, and surveillance risk while assessing the affordances of AI and immersive media. A pragmatic framework specifies design levers, learning evidence, and policy tools that align finance and accountability. Digital literacy is advanced as public infrastructure for democratic participation and dignified work across the life course.

DOI: 10.4018/979-8-3373-8510-5.ch006

1. INTRODUCTION

Contemporary education is undergoing a structural inflection as digital architectures infiltrate cognition, communication, and institutional practice (Nada & Sari, 2020; Palacios-Hidalgo & Huertas-Abril, 2025). Microcomputers, broadband networks, and mobile platforms have migrated from peripheral tools to constitutive substrates of knowledge work (Mokhtari, 2023; Portillo et al., 2020). The pandemic shock of 2020 exposed this dependency when school closures displaced learning for nearly 1.6 billion students worldwide and compelled abrupt transitions to remote modalities. Within a human rights frame, this turbulence reasserts the right to education as an enforceable entitlement rather than a discretionary good (Adler et al., 2023; Kim et al., 2018). The four A principles of availability, accessibility, acceptability, and adaptability acquire concrete digital correlates that include resilient connectivity, device sufficiency, culturally and linguistically responsive content, and pedagogies that flex across modalities (Cubukcu & Bazyan, 2018; Phuapan et al., 2016). Digital literacy therefore functions as enabling capability and due process safeguard (Ahmad et al., 2023; Zadražilová & Vizváry, 2021). It secures meaningful access to instructional resources, protects learners from exclusionary design and opaque data practices, and supports participation in academic governance (Porat et al., 2018; Saliu & Bicaj, 2022). When states legislate curriculum standards, fund infrastructure, and capacitate teachers, they discharge obligations of immediate effect and progressive realization (Casillas Martín et al., 2020; Krumsvik, 2011). When they neglect these duties, connectivity deserts and device scarcity devolve into rights deficits that entrench inequality across gender, caste, disability, and geography.

Digital literacy has evolved from mechanistic routines to a composite of procedural, epistemic, and ethical competencies (García-Vandewalle García et al., 2023; Reddy et al., 2020). Taxonomies distinguish discrete skills such as search syntax, file management, or spreadsheet fluency from higher order literacies that integrate critical appraisal, multimodal authorship, and collaborative problem solving (Carretero et al., 2017; Pegalajar Palomino & Rodríguez Torres, 2023). Competence denotes a stable configuration of knowledge, skills, and dispositions that permits autonomous and accountable action in complex digital ecologies (Abrosimova, 2020; Sefton-Green et al., 2009). Contemporary frameworks enumerate domains that include information and data literacy, communication and collaboration, digital content creation, safety, and problem solving, thereby binding media studies, information science, and computational reasoning into a single architecture (Ei & Soon, 2021; Maher, 2020). A rights compatible approach extends this architecture with privacy stewardship, algorithmic transparency, accessibility by design, and linguistic inclusion so that participation is substantive rather than nominal (Cartelli, 2013; Morellato, 2014). Epistemic vigilance against misinformation protects democratic

Integrating AI Into Restorative Justice and Conflict Resolution

(2025). *AI and the Future of Law Enforcement: Redefining Community Trust and Problem-Solving (pp. 185-208).*

www.irma-international.org/chapter/integrating-ai-into-restorative-justice-and-conflict-resolution/376979