Chapter 2
From Exclusion to Inclusion AI as a Catalyst for Equal Access to Education

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ABSTRACT

Artificial Intelligence (AI) holds transformative potential to address long-standing educational inequities by enabling personalized, accessible, and inclusive learning experiences. This chapter explores how AI can shift education systems from exclusion to inclusion, particularly benefiting learners from marginalized backgrounds, including those with disabilities, rural populations, and linguistic minorities. Drawing on global case studies—from India's DIKSHA platform and mobile learning in Sub-Saharan Africa to AI-driven STEM initiatives in Latin America and mental health support in higher education—the chapter highlights both innovations and implementation challenges. It emphasizes the need for ethical, equitable, and interdisciplinary approaches to AI design, aligning with global frameworks such as

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SDG 4. By balancing innovation with fairness and accessibility, and embedding inclusive practices into policy and pedagogy, AI can contribute significantly to building future-ready, inclusive education systems where no learner is left behind.

INTRODUCTION

Educational inequity remains one of the most persistent and complex challenges of the 21st century, manifesting in disparities across access, quality, and inclusion within diverse educational contexts. These inequities are deeply entrenched in global systems and are particularly evident in the experiences of students from marginalized socio-economic backgrounds, remote or conflict-affected areas, and those with disabilities or linguistic minorities (Gabriel, 2024; Cortez, 2023). While significant strides have been made toward universal education through global frameworks like UNESCO's Education for Sustainable Development and Sustainable Development Goal 4 (SDG 4), the gap between the promise of "education for all" and its practical realization remains stark. As of 2023, more than 244 million children and youth globally remain out of school, with millions more attending schools that lack sufficient resources for meaningful learning ("AI And Education: Guidance for Policy-makers," 2021).

In an increasingly interconnected and digitized world, equitable access to quality education remains not just an aspiration, but a moral imperative and policy priority. Despite decades of reform, learners from marginalized, rural, linguistically diverse, and socioeconomically disadvantaged communities continue to face exclusion. The COVID-19 pandemic exacerbated these divides, revealing structural inequalities in digital infrastructure, teacher preparedness, and inclusive pedagogical practices. In this context, Artificial Intelligence (Al) emerges not merely as a technological innovation, but as a potentially transformative force capable of reconfiguring access, inclusion, and personalization in education.

Persistent Disparities in Access, Quality, and Inclusion

Educational inequity is a multidimensional phenomenon shaped by intersecting social, cultural, geographic, and technological factors. These interlocking dimensions continue to produce cumulative disadvantages for historically underserved learners.

- Socioeconomic Barriers: Learners from disadvantaged communities frequently lack access to quality educational infrastructure, qualified teachers, or digital tools, leading to significant achievement gaps (Leveraging Al to Bridge Educational Inequities: A Global Perspective, 2024).