


# Chapter 12

## Inclusive Transformation With Artificial Intelligence: Ethical Aspects, Policies, and Strategic Approaches for Equitable Education

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### ABSTRACT

*In recent years, artificial intelligence (AI) has emerged as one of the most potent tools to promote digital transformation in education. The effective use of AI in education requires robust policy frameworks and ethical oversight mechanisms. Providing an overview of the transformative role of AI in education, this chapter discusses the prominent requirements for the ethical use of technology that supports inclusive and equitable education in education systems and offers policy recommendations that will maximize the potential of AI in creating equitable, fair, and inclusive educational environments. Special emphasis is placed on the role of interdisciplinary collaboration among stakeholders to ensure that AI systems are aligned with human-centered values and educational goals. The chapter aims to draw attention to the data-driven framework addressing the most debated issues of bias, data privacy, inclusion, risks, fair and equitable approach in education to establish an inclusive AI ecosystem in light of global standards, international policies, and evidence-based practices.*

### INTRODUCTION

With the advent of the Fourth Industrial Revolution, digital technologies, especially artificial intelligence (AI), have become transformative forces in shaping economic, social, and educational systems. While these advances promise innovation and efficiency, they have also exacerbated existing inequalities by disproportionately benefiting a small, highly skilled segment of society and marginalizing those with limited resources or educational opportunities. As social inequalities widen, barriers to educational ac-

DOI: 10.4018/979-8-3373-0122-8.ch012

cess and participation intensify, further deepening gaps in well-being and opportunity, especially among disadvantaged populations (Schwab, 2016).

In this context, the imperative to promote equity and inclusion in education is not just an economic concern, but a critical foundation for social stability, justice, and quality of life. Historically, educational systems have often excluded individuals who deviate from dominant normative standards. Policies and practices that promote discrimination are in sharp contrast to the fundamental principles of inclusive education, which emphasize equity, participation and respect for diversity in all educational settings (Mittler, 2008; UNESCO, 2005).

As a rapidly evolving technology, AI has the potential to either reinforce or help disassemble these exclusionary structures, depending on how it is developed, implemented, and governed. Therefore, examining the role of AI in inclusive education requires not only a technological lens, but also a critical ethical, social, and pedagogical perspective. This chapter explores the transformative possibilities and inherent risks of integrating AI into inclusive education, with the goal of contributing to a more equitable and human-centered digital future.

## **MAIN FOCUS OF THE CHAPTER**

This chapter analyzes the ethical, social, pedagogical, and political risks of integrating AI into inclusive education. It provides a strategic framework for making this transformation more equitable, human-centered, and sustainable. Despite the growing interest in literature on the potential contributions of AI in education, there is a clear lack of comprehensive and critical analyses of how these technologies intersect with the principles of inclusion in education and how to respond to the risk of deepening inequalities. In the context of "Pitfalls of AI Integration in Education," this chapter systematically addresses risks such as algorithmic bias, privacy violations, impact on teacher roles, digitalization of social relations, obsolescence of professional skills, and deepening of the digital divide. The chapter also discusses the conditions under which AI's potential to support equity in education can be unleashed, what kind of risks it poses for which groups, the exclusionary effects of a lack of data diversity, and the socio-emotional effects of AI systems on human relationships. In this context, recommendations are provided on the development of AI applications based on a human-centered design approach, the structuring of inclusive ecosystems, and the delineation of the ethical boundaries of this transformation process. It presents not only a technological transformation, but also a normative inquiry into the social function of education. It argues that decisions about the use of artificial intelligence in education should be consistent with the principles of ethical responsibility, transparency, inclusion, and social justice. The proposed framework provides a roadmap for AI-powered systems to play a transformative and inclusive role, rather than reproducing inequalities in education.

## **THE TRANSFORMATIVE ROLE OF AI IN INCLUSIVE EDUCATION**

Inclusive education is a philosophy that fosters collaboration among students, families, educators, and communities to build a sense of belonging (Salend, 2011). Every child is special, and each child has unique characteristics. This approach emphasizes the importance of children who exhibit individual differences in many ways to learn together in an inclusive educational environment. The inclusive

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