


Chapter 1

AI and Equity in Higher Education: Ensuring Inclusivity in the Algorithmic Classroom

Amdy Diene

 <https://orcid.org/0000-0002-1818-6195>

Liberty University, USA

ABSTRACT

This thought-provoking chapter is systematic research based on theories from literature review and empirical data exploring AI's potential impact on educational equity in higher learning. The authors examine how AI-powered systems might inadvertently perpetuate biases, affecting marginalized students disproportionately. This chapter discusses institutions' responsibility to implement AI in ways that support inclusivity and diversity. In addition, it highlights initiatives that prioritize fairness and transparency in AI algorithms. AI systems can perpetuate existing biases if not designed with the right in mind. Additionally, if an AI system is not transparent about its decision-making processes, identifying or rectifying potential biases will be nearly impossible. Readers will gain a deeper understanding of AI's challenges and opportunities in reshaping education, focusing on ensuring that no student is left behind.

INTRODUCTION

The most significant disruption from technological development in this decade is Artificial Intelligence (AI), according to How et al. (2020), with the acknowledgment that these machines can solve many tasks requiring human intelligence, including facial recognition, natural language processing, and even driving a car. In this chapter, we will investigate the impact, negative or positive, AI has on higher education. Higher education has long stood as a beacon for progress and enlightenment, where knowledge, critical thinking, and diverse perspectives converge. However, as AI-powered tools weave their way into the fabric of academic institutions, we are met with new challenges that echo age-old issues of equity, fair-

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ness, and inclusivity. The harnessing of algorithms in the classroom presents both a promise and a peril, with the potential to either uplift or further marginalize. Research in AI and equity in higher education has shown promising results. Cheddadi (2021) and Austin (2023) highlight AI's potential to promote equity by predicting student outcomes and detecting human bias in decision-making processes. However, (Holstein & Doroudi, 2021) warn that AIED systems may inadvertently exacerbate existing inequities, requiring a more critical examination of their design and implementation. This thinking aligns with (Baldwin & James, 2010) emphasis on the need to reconceptualize equity in the context of massified, globalized higher education.

This chapter sheds light on these complexities, challenging educational stakeholders to ensure that the might of machines overshadows no student. As tech moguls have before it, generative AI enters the game; however, it faces a fierce battle in the business world, especially in areas like healthcare, HR, and academia. What are tomorrow's students' expectations with artificial intelligence invited to dance on academia's floor? With (AI) making its way into the academic arena, students of tomorrow are bursting with expectations. However, not everyone is on board with this new technology, similar to when the telephone and television were invented. The invention of the phone was met with fear, and critics wondered if the telephone would disrupt face-to-face communication (Blinkoff & Hirsh-pasek, 2023). When television entered the arena, people fretted about potential harm. We are curious to know how ChatGPT or CLAUDE will impact students' ability to acquire knowledge. Some professors suggest an analogy from the calculator and math to ChatGPT and writing. In the same way that calculators became an essential tool for students, it is believed that ChatGPT has the same potential to become a necessary tool for writers and students alike, posit Blinkoff & Hirsh-pasek.

The Southeastern Conference (SEC) and its member universities focus on integrating artificial intelligence into the classroom and supporting workforce development training, The Chronicle (2020). As well as being known for its athletic prowess, the SEC is leading the way in transforming higher education by creating the SEC Artificial Intelligence Consortium. The consortium focuses on applying artificial intelligence and data science to workforce development because it acknowledges the rapid advancement and growing applications of artificial intelligence and data science in all sectors of society. It is important to them that their students are prepared for a future in which artificial intelligence is becoming an increasingly important part of the workforce. The universities embrace AI as a learning tool while acknowledging ethical concerns and hesitations with discussions around issues such as how AI works, effective software use, and academic integrity. The future landscape of academia will include automatic data collection, grading, creativity, feedback, automatic peer review, prompt engineering, contextualized citations, personal tutor, instant lit review, personal Teaching Assistant (TA), and Research Assistant (RA).

Adam Stevens notes that ChatGPT is only a threat to academia if our education system continues to "pursue rubric points and not knowledge" (Lambert & Stevens, 2023). Educating students the old-fashioned way will not prepare them for success or the jobs of tomorrow. It is time to let the old model die peacefully. Used rightly, ChatGPT can be a fantastic tool for students, just like the calculator is, and not something to be feared, according to Blinkoff and Hirsh-pasek. The authors think that in the coming years, this cutting-edge technology will continue to evolve and reshape various industries, including education because its integration into academia holds immense potential for revolutionizing learning methodologies and preparing future students. AI-enabled tools such as virtual tutors, peer reviewers, adaptive learning systems, and AI-enabled grading and feedback are expected to improve the learning experience for tomorrow's students.

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