

AI in EdTech and FinTech: Stakeholder Engagement and Better Governance and Policies for Data Privacy

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EXECUTIVE SUMMARY

Artificial intelligence as a component of education technology and financial technology is burgeoning and its capacity for disruption is being demonstrated in some of the most dominant use cases in these sectors. As this emergence takes place, there is a need to ensure that appropriate governance and stakeholder engagement are in place to facilitate data privacy policies that minimise risk, bias, discrimination, and other unintended consequences that could occur from the use of these technologies. This chapter delves into the state of artificial intelligence in the EdTech and FinTech sectors, the current stakeholder, governance, and data privacy challenges and recommends how the interplay of stakeholder engagement, regulation, and governance at the regional, national, organisational and project levels can contribute to robust data privacy policies in these sectors.

INTRODUCTION

With the rapid integration of Artificial Intelligence (AI) into the EdTech and FinTech sectors in the last few years, this chapter delves into the impact and growing influence AI is having on these sectors as demonstrated by the most dominant use cases, new business models, disruption, and unprecedented opportunities in these sectors.

However, this increasing integration of AI has also raised ethical concerns particularly, regarding data privacy, governance, and embedded risk. This is seemingly exacerbated by the growing popularity of Generative AI which has popularised the use of models which use vast amounts of data that could also contain sensitive personal data. This chapter highlights the concept of data privacy and the need to minimise risk, bias, discrimination, and other unintended consequences. It describes the importance

of stakeholder engagement in the shaping of effective governance structures and robust data privacy policies at the regional, national, organisational, and project levels in these sectors. Whilst it identifies the inherent limitations and gaps in the current interplay of stakeholders, governance, and data privacy policies, it also sets the stage for further exploration.

BACKGROUND

Though established several decades ago, the use of AI has shown a marked rise in recent years due to advancements in machine learning, computing power, capacity to store data and networks (Biallas and O'Neill, 2020). In fact, in the 2020s, AI has increasingly become a dominant technology (Hilpisch, 2020). The past several years has seen the proliferation of AI in every aspect of industry, becoming a fundamental and disruptive force in all sectors including in the Education Technology (EdTech) and Financial Technology (FinTech) sectors.

Research has shown that the integration of AI into the EdTech and FinTech sectors is increasingly progressive. EdTech, as recorded in higher education, has witnessed a sharp increase in the integration of AI into the sector since 2020, with a 150% rise from the two years before that and including main use cases such as Assessment/Evaluation, Predicting, AI Assistant, Intelligent Tutoring system (ITS) and Managing Student (Crompton, 2023). An economic perspective also highlights the growing prevalence and importance of AI in the sector as the global market for AI in education was at US\$4 billion in 2022 and is set to grow to US\$32 billion by 2032 (Global Market Insights, 2023).

Likewise, the FinTech sector is being transformed by innovation in use cases such as enhanced customer experience, personalisation, targeted offers and communication, behaviour-based decisions using predictive and prescriptive analytics, credit risk assessment, fraud detection, financial reporting, robo advisors, compliance automation and end-to-end digital banking in the form of neobanks. AI is changing and reshaping this sector in the areas of financial intermediation, compliance, risk management and oversight with the advent of Generative AI set to accelerate this adoption further (Shabsigh & Boukherouaa 2023). Impressively, the global market for AI in the financial technology sector was valued at US\$12.11 billion in 2022 and is expected to grow to US\$41.15 billion in 2030 (Grand View Research, 2020).

With 90% of FinTech companies already using AI (Ryll et al., 2020) and multilateral support for AI in EdTech exemplified by the UNESCO support for the use of AI for the achievement of the Sustainable Development Goals on education, this trend looks set to continue and AI growth in these sectors is set to burgeon. However, the proliferation of AI in the EdTech and Fintech sectors is raising ethical concerns especially relating to data privacy and governance. Risk considerations include data privacy and embedded bias (Shabsigh & Boukherouaa, 2023). For instance, foundation models, which generative AI is built on, are trained on huge volumes of data and may include sensitive and/or personal financial data which brings up data privacy issues. (Maanak, 2023). Data privacy concerns also exist in the EdTech sector. Data privacy entails safeguarding how personal data is collected, processed, and stored i.e. ensuring that the processing of this data is done in an ethical and responsible way. The main principles of data privacy (principles relating to the processing of personal data) include lawfulness, fairness and transparency, purpose limitations, data minimization, accuracy, storage limitations, integrity, confidentiality, and accountability (General Data Protection Regulation). This includes ensuring that personal data is not made accessible to third parties without the full consent of the owner, for instance, web scraping to improve

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