Ensuring Data Privacy in AI-Driven Educational Platforms: Case of Moodle at NUST

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Abstract

Artificial Intelligence (AI) in educational platforms Is transforming teaching and learning experiences due to its customization that enhances personalized learning and student engagement. However, there are some critical concerns on the issues of data privacy, ethical issues on data handling, and regulatory compliance. Adding to this is a lack of literature that explains makes a comprehensive examination of the privacy concerns associated with using AI-driven educational platforms. This study employs a systematic literature review (SLR) to document the key challenges of ensuring data privacy in IA-driven educational platforms. The SLR was guided by the PRISMA model, in selecting 27 relevant articles drawn from IEEE and Google Scholar. The findings identified data privacy issues such as algorithmic bias, security breaches, implementation complexity and data breaches. The study further reveals that there is lack of real-time threat detection and response. To counter identified privacy and security challenges, the different types of security measures are examined which include General Data Protection Regulation (GDPR) compliance, anonymization, secure authentication and encryption. These findings have an impact on the university management and policy makers who are concerned about securing data created, processed, stored and transmitted over the AI-driven education platforms.

Keywords
AI-driven educational platforms, data privacy, Moodle, and Artificial Intelligence