Chapter 6

Gamification and Engagement in Modern Education

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Abstract

Game-based learning integrates entertainment with educational content to create interesting and effective educational experiences. Professional video games and gamification are being used in this method to assist students develop their competencies. Genuine games employ video games for learning skills, whereas gamification incorporates gaming features into non-gaming environments. These methods can be dynamically incorporated to form innovative strategies. Gamification employs simulation aspects and the participatory nature of games for teaching certain skills and address real-life issues. The study investigates gamification in e-learning systems and presents a participatory framework for developers to improve student participation and performance. The framework is comprised of up of gaming features, learning exercises, and components that influence participation. Two experts examined the framework employing semi-structured interviews, showing that developers may use it to successfully gamify e-learning systems, resulting in greater student engagement and performance. The article explores the variations between digital games, game-based learning, and gamification, and presents a framework for integrating gamification into eLearning systems based on the instructional design (ID) Model. The framework is divided into phases that include analysis, design, development, implementation, and assessment. The findings enable decision-makers and stakeholders in educational institutions distinguish between various strategies and choose appropriate ID models for gamifying educational content execution. This study investigates the incorporation of artificial intelligence (AI) in adaptive gamification by reviewing previous literature and identifying common gamification aspects as well as strategies for integrating AI techniques based on user profile characteristics. It presents a complete study on adaptive gamification, emphasizing the importance of ongoing investigation and development of novel approaches.

Keywords

Gamification, E-Learning, Online Classrooms, Educational Objectives, COVID-19

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