Innovative Horizons in Education: Development of the "Immersive Technology" Educational Program Based on Extended Reality Projects

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Abstract:

The modern world relies heavily on information technologies, which have become integral to our daily lives, influencing various aspects of human activity. They have revolutionized industries such as entertainment, manufacturing, healthcare, and more, through the use of artificial intelligence, augmented reality, virtual reality, and other innovations. Their impact on education is equally profound, where the adoption of new methods supported by digital tools is reshaping traditional approaches to teaching and learning. Online education, combined with virtual solutions, has proven to be an effective pathway for expanding access and enhancing quality. At the International Information Technology University (Almaty, Kazakhstan) ongoing projects in the Mixed Reality Laboratory are dedicated to integrating augmented and virtual reality into the educational framework. This article examines how these scientific endeavors have resulted in the creation of a cutting-edge educational program named "Immersive Technologies". It highlights the program's structure, the approval process, and the outcomes achieved through its implementation.