Immersive Learning

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Immersive learning conceptualizes education as a set of active phenomenological experiences that are based on presence. Immersive learning can be implemented using both physical and digital means, such as virtual reality and augmented reality.

education   immersion   presence   Metaverse   virtual reality   virtual worlds

extended reality   mixed reality

For millennia, humans learned by doing. From the early days of hunters and food collectors to the first communities, humans were learning from nature and from each others through experience. Experiential learning is at the core of our existence and is fundamental in our physiological, behavioral and psychological development.

Learning in later stages of human history heavily relied on the oral proliferation of stories and tales from one generation to the other around the campfire or in public performances of theater and epic lyric poetry. Although this type of learning was separating the content of the learned experience from its context, it allowed societies to transfer knowledge cross-generationally and at a bigger scale. In a way, the lack of context was compensated by an increased engagement through narrative, imagination, staged performances, and often music. Humans were starting to be immersed, not only in the environments, conditions and situations, but in stories. The invention of writing and the authoring of text, manuscripts and eventually books unlocked learning at a substantial scale but further reduced the distance between the content and context of the learning experience. The reduction of learning from experience to reading text offered the tremendous potential for humans to increase their knowledge through someone else's experience in exchange for personalizing that same experience. Learning occurs naturally and experientially in the real context, which occurs within the genuine three-dimensional physical environment. When this is impossible, too dangerous or unproductive, this condition can be approximated in artificial virtual spaces, which can emulate the authentic context and elicit immersion by their presence within the simulated system [1], by the diegetic concern with the contextual meaning and narrative [2] and/or by the psychological absorption with the challenges and tasks [2]. This type of educational experience is called immersive learning. The original context can be abstracted in many ways to represent various aspects of the intended learning using fantasy and stylized and illustrated worlds, similar to video games [3].

In the Socratic philosophical dialogs *Republic*, *About Justice* and *Politics*, Plato captured the allegory of the cave with respect to the nature of physical reality [4]. In this symbolic storified representation, humanity's state resembles prisoners chained in a dark subterranean cave. Their only perception of reality is shadows of real objects' images and other elements of the physical reality being projected onto the cave's wall as they are held in front of a light-emitting source, a fire. The discussion concludes that the duty of a philosopher as an enlightened citizen is to break

free of these restrictions, escape from the cave and experience that authentic light as well as the true forms of the physical objects. The cave allegory provides a foreshadowing of alternative reality representations while at the same time demonstrating the potentially paralyzing effect of legacy paradigms, systems and methods in education.

References

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