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Reshaping the Shape of Time: Integrating LLMs and XR for Enhanced Cultural Heritage Representation

This keynote discusses integrating generative AI, NLP, and XR, augmented with multi-sensory feedback like haptics and olfactory virtual reality (OVR). This integration aims to facilitate immersive learning experiences in teaching global cultural heritage, fostering a dialogical interaction between users and diverse cultural narratives. The proposed model highlights the potential of using generative AI to resurrect significant historical personalities and indigenous cultures, often overlooked in mainstream history. This approach challenges traditional postcolonial narratives by offering scaffolded experiences in virtual learning environments (VLEs), enabling deeper engagement with historical events and figures. The chapter also addresses concerns regarding the accuracy of large language models and the ethical implications of potential historical misrepresentations. It emphasizes collaboration with experts to ensure historical veracity and appropriateness, alongside addressing ownership, representation, and cultural appropriation issues. Furthermore, the integration of ecological momentary assessment (EMA) and geomapping wearable devices proposes a nuanced and interactive approach to history, addressing Kubler's The Shape of Time dilemma and offering a new perspective on the space-time continuum. This research underscores the transformative potential of merging LLMs with immersive technologies, providing captivating educational experiences while conscientiously navigating the delicate balance between authentic historical dialogues and postmodern simulacra.

Biography

Professor James Hutson holds the esteemed position of Lead XR Disruptor and Department Head of Art History and Visual Culture at Lindenwood University. His remarkable contributions include founding the Immersive Arts and Culture Hub and the XR and Gaming Lab, pivotal in fostering immersive experiences for all students, enhancing equitable education. He spearheads the AI initiative and AI Ambassadors, focusing on integrating AI across majors, preparing students for technological disruptions in education and everyday life. Dr. Hutson leads an international research team pioneering collaborative authorship models to tackle complex problems. As editor-in-chief of the International Journal of Emerging and Disruptive Innovation in Education (iJEDIE), he enriches interdisciplinary discourse. His extensive experience includes teaching over 120 online courses, developing award-winning online degree programs, and authoring over 100 academic works.