How Mediated Immersion Shapes Learning

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ABSTRACT

Over the next decade, three complementary interfaces will shape how people learn: (1) the familiar webpages-and-windows “desktop,” (2) multi-user virtual environments (including sensory immersion via virtual reality), and (3) augmented realities based on mobile wireless devices and infused in real world settings. The “millennial” learning styles ascribed to the Net Generation stem primarily from the desktop interface; however, the growing use of virtual environments and augmented realities is fostering new forms of mediated learning in users of all ages. The crucial factor leading to this “neomillennial” learning is that the desktop interface is not psychologically immersive, while in contrast virtual environments and augmented realities induce a strong sense of “presence.” Psychological immersion enables a powerful pedagogy, situated learning, which is based on authentic contexts, activities, and assessment coupled with guidance from expert mentoring as well as tacit learning through collaborative activities. Through situated learning enabled by psychological presence, virtual environments and augmented realities is shaping participants’ learning styles beyond what using sophisticated computers and telecommunications has fostered thus far, with multiple implications for education and training.

Bio

Chris Dede is the Timothy E. Wirth Professor of Learning Technologies at Harvard Graduate School of Education. His fields of scholarship include emerging technologies, policy, and leadership. His funded research includes a grant from the National Science Foundation to aid middle school students learning science via shared virtual environments and a Star Schools grant from the U.S. Department of Education to help high school students with math and literacy skills using wireless mobile devices to create augmented reality simulations.

Chris has served as a member of the National Academy of Sciences Committee on Foundations of Educational and Psychological Assessment, a member of the U.S. Department of Educations Expert Panel on Technology, and International Steering Committee member for the Second International Technology in Education Study. He serves on Advisory Boards and Commissions for PBS TeacherLine, the Partnership for 21st Century Skills, the Pittsburgh Science of Learning Center, and several federal research grants.

In addition, Chris is a member of the Board of Directors of the Boston Tech Academy, an experimental small high school in the Boston Public School system, funded by the Gates Foundation. He was the Editor of the 1998 Association for Supervision and Curriculum Development (ASCD) Yearbook, Learning with Technology and recently completed a co-edited book on Scaling Up Success: Lessons Learned from Technology-based Educational Innovation, published by Jossey-Bass in 2005. Chris led a NSF-funded invitational research conference at Harvard last September on online teacher professional development; Harvard Education Press will publish that conference volume next summer.

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