

# Augmented and Virtual Reality

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The tools and applications that support augmented reality and virtual reality (along with the more nascent world of mixed reality) have reached a level of development that allows widespread and increasingly mainstream use, including for teaching and learning. The resources below explore many of the technologies involved in AR and VR, discussing their ongoing development and the ways in which they are being used to add new dimensions to educational contexts.

## A New World: VR and AR Tech Developments (2017)

This column from *EDUCAUSE Review* describes the current market for virtual reality headsets and recent developments in the technology that promise an even broader range of devices and capabilities. It then discusses innovations in the tools and applications for augmented reality, and includes a nod to the emerging world of mixed reality.

## The Top 10 Companies Working on Education in Virtual Reality and Augmented Reality (2016)

This resource profiles 10 companies providing tools and services for virtual and augmented, with an eye toward how those applications can benefit educational contexts. Many of the profiles include embedded video clips that demonstrate the applications in action, showing how students and educators can use them to enhance teaching and learning.

## How Virtual Reality is Changing This Art History Class at UVA (2017)

An instructor and the University of Virginia developed a program that uses virtual reality in an art history class. Using the VR tools, students spend the full two hours of each class session exploring a single work of art. The project shows how VR tools can influence pedagogy and create new kinds of learning experiences.

## 5 VR Trends to Watch in Education (2017)

This article discusses five important trends in virtual reality and the ways in which those trends are likely to influence education. Those trends include lower-priced headsets, greater interactivity, platforms to create content, 360-degree cameras, and social VR spaces.

## VR and AR: Driving a Revolution in Medical Education & Patient Care (2017)

The authors of this *EDUCAUSE Review* column discuss the ways in which virtual reality has been incorporated into health care and medical education. Featuring links to the projects discussed, the column describes using VR to treat anxiety disorders, to teach anatomy, to help medical students develop empathy for patients and their families, and to demonstrate surgical procedures.

## USC Institute for Creative Technologies: Prototypes Overview (2017)

This resource from the University of Southern California collects several examples of how virtual reality tools are enabling new and different kinds of educational experiences. Among the tools included are those that assist veterans and train social-work students, who counsel veterans with PTSD. Students practice on virtual patients, and veterans can take advantage of SimCoaches.

## Virtual and Augmented Reality: Stepping Into the New Frontier of Learning (2017)

This webinar covered recent and upcoming developments in virtual, augmented, and mixed reality, as well as industry trends that will shape the future of immersive learning. VR, AR, and mixed reality are creating compelling learning experiences from STEM to digital humanities and medical education. The presenters identified devices, content examples, emerging practices, and strategies to help kick-start VR and AR projects.