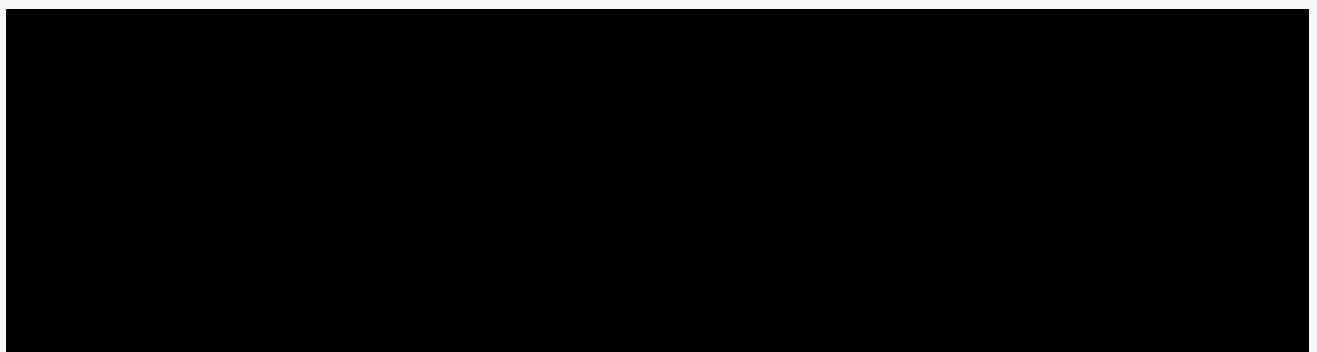# Mixed Reality

What is Mixed Reality (MR)?

Mixed reality displays interactive 3D holograms in a physical space. The holograms are viewed through a mixed reality headset and manipulated by using hand motions. The virtual objects appear as if they are in the real world.

How can MR promote learning?

MR is an emerging technology that holds great promise for the future. Like augmented reality, MR applications are most effective when there is a benefit to blending the physical and virtual spaces. MR delivers similar affordances as AR, but at a more immersive and realistic level. MR allows students to:
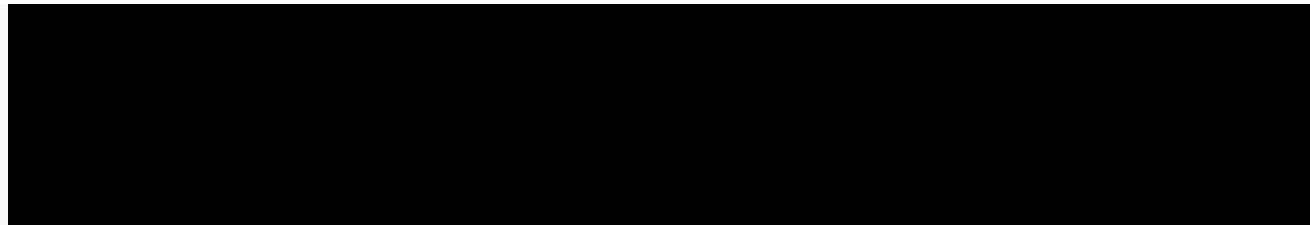
- interact with realistic three-dimensional digital objects that are not physically accessible.
- access digital information and instructions while interacting with the real world.
- view objects and designs in the context of a real space

Interact with 3D digital objects. In this example, medical students study anatomy using interactive 3D holograms that display structures not visible on traditional cadavers.
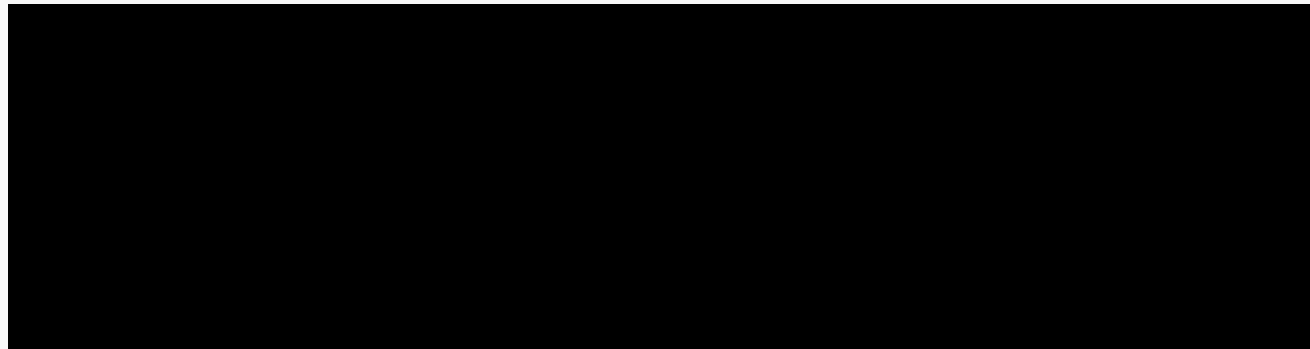

Access digital information in the real world. MR can guide trainees step-by-step through complex tasks by blending digital instructions with the real world environment.

View objects and designs in a real space. Mixed reality was used in this Times Square art installation to powerfully convey the artist's message.

Requirements

Question	Requirement
What do my students need to use MR?	Mixed Reality headset (HoloLens, Magic Leap)
What do I need to implement MR in my teaching?	**Lesson plan** that outlines how mixed reality will be used to teach, practice or assess learning. **Mixed reality application:** - MR apps for HoloLens are available on the Microsoft store - For educational applications, a custom MR solution may be required
How is it made?	Custom MR app development requires a development team.

Where do I start?

Complete the XR Project Intake form on the Getting Started page for assistance with MR project ideas.

tags : extended-reality-guide, mixed-reality, teaching-and-learning, teaching-and-learning-centre, xr, xr-guide