

SENG2260 Human-Computer Interaction

Workshop 8 Week 8

SPS

Today

- AR technology and HoloLens



Augmented and Mixed Reality interaction

- “Holograms are the next evolution in computing. With this vision in mind, hardware, software, and design came together to create the first fully self-contained holographic computer”
- “Microsoft HoloLens is made up of specialized components that together enable holographic computing. The optical system that works in lock-step with advanced sensors. The HPU that makes light work of processing a large amount of data per second. All those components and more enable you to move freely and interact with holograms.”

<https://www.microsoft.com/en-us/hololens/hardware>

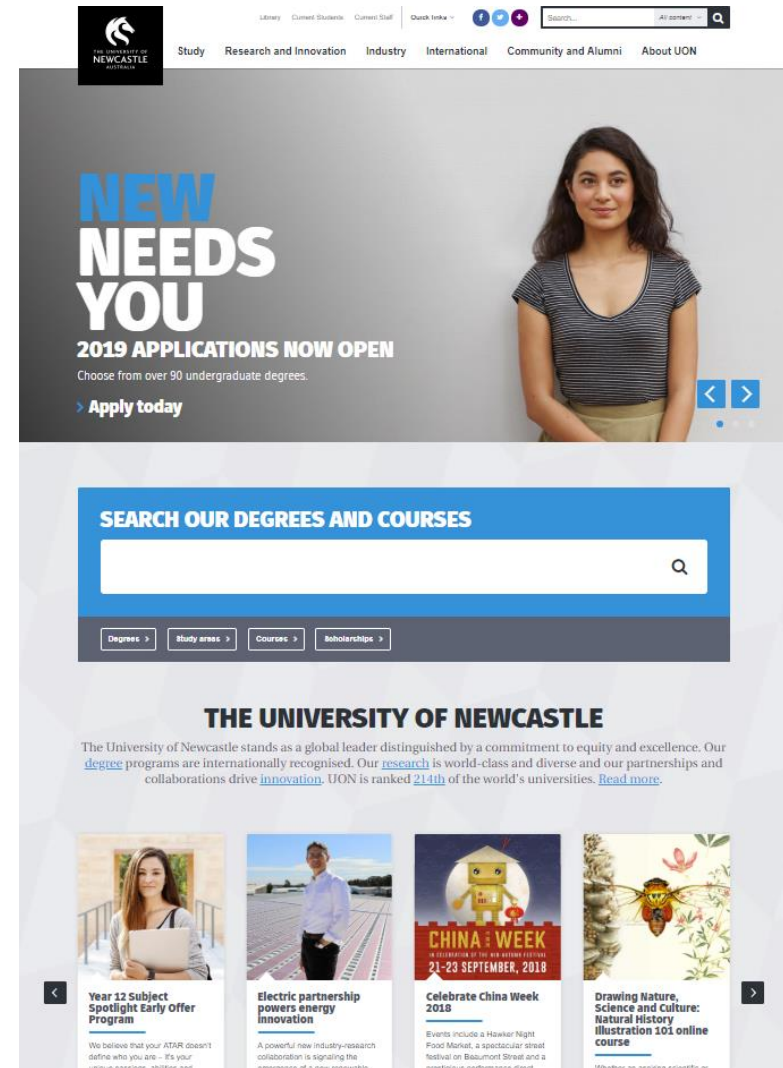
- Today we will consider the use of the HoloLens head mounted display (HMD).

The Hololens and Mixed reality

- Hololens overview
 - Video: <https://www.microsoft.com/en-us/hololens>
- Mixed-reality: Remote assist
 - Video: <https://dynamics.microsoft.com/en-us/mixed-reality/remote-assist/> (<https://youtu.be/V732PXZHLiU>)
- Mixed-reality: Layout
 - Video: <https://dynamics.microsoft.com/en-us/mixed-reality/layout/> (<https://youtu.be/9viR6U-D2Co>)

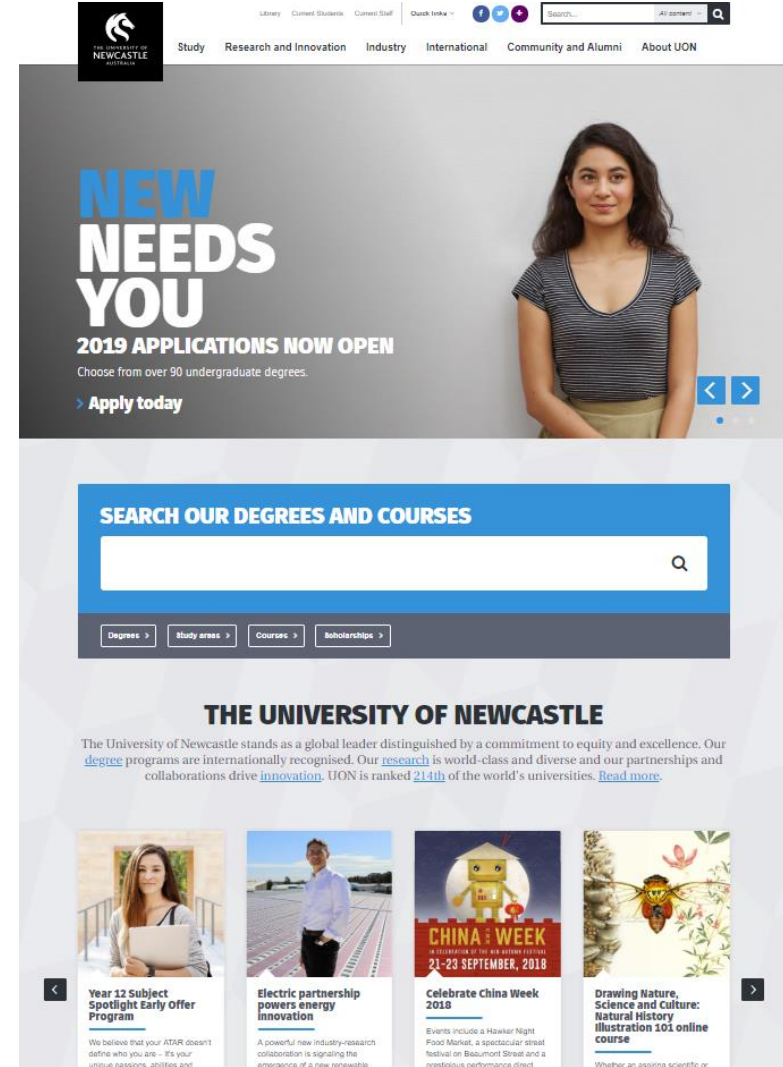
AR to change interaction

- Augmented and Mixed Reality technology provides opportunities to re-envision interaction from more traditional user interfaces.
- In this exercise you will consider how you could translate the information/material presented in the UON website to the AR world of the Hololens



UON website in AR

- In groups (20 minutes), consider how the information in the UON website could be presented in the Hololens
 - How will different user interaction support access to the website content
 - How will Hololens use on campus change how information is presented
- Class review (15 minutes): present your design vision / challenges / opportunities to the rest of the class



Next week

- RLT: Gamer bias in evaluation studies
- Before the workshop, read:
 - S. P. Smith and S. Du'Mont. Measuring the effect of gaming experience on virtual environment navigation tasks, *IEEE 3D User Interfaces 2009 (3DUI 09)*, pg 3-10, IEEE, 2009.
 - <http://dx.doi.org/10.1109/3DUI.2009.4811198>

