SENG2260 Human-Computer Interaction

Workshop 3
Week 3

SPS

Today

- Virtual Reality technology

Virtual Reality

- Commonly enabled by using head-mounted display immersive technology:
  - Oculus https://www.oculus.com/
    - Video: https://www.oculus.com/vr-for-good/

  - Vive https://www.vive.com
    - Video: https://youtu.be/DPMJDXmYwiY

  - PlayStation VR https://www.playstation.com/en-au/explore/playstation-vr/
    - Video: https://youtu.be/Gj-DyMTUZIs

- Who are the target users in each video?
- What types of interaction are shown/demonstrated?

Virtual Reality interaction

- More "immersive" interaction. Increased sense of "presence" – of "being there"
  - S. Smith, T. Marsh, D. Duke and P. Wright. "Drowning in immersion". http://shamussmith.myresearchsite.com/papers/smithUKVRSIG98.pdf

- How does immersion impact the user experience?

- Consider interaction requirements (Bowman et al, 2005)
  - Navigation
  - Selection
  - Manipulation
  - System commands
  - Symbolic input

- How will core interaction techniques work with a VR/head-mounted display?

Consider the group project:

- Pick one of the tasks you have identified for your assessment
  - Consider interaction requirements when using a HMD like the Oculus Rift/Quest
    - Where would interaction be better / what would work
    - Where would interaction be worse / what would be problematic
    - Consider user/technology/environment/context
    - Consider Resource Model requirements

- Interaction requirements (Bowman et al, 2005)
  - Navigation
  - Selection
  - Manipulation
  - System commands
  - Symbolic input

Next time

- Cooperative evaluation and haptic interfaces

- Before the workshop, read:

  – S. P. Smith and S. Todd. "Collaborative evaluation of a haptic-based medical virtual environment", *4th INTUITION International Conference on Virtual Reality and Virtual Environments*, pg 102-110, October 2007.

  http://shamussmith.myresearchsite.com/papers/SmithToddIntuition07.pdf

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