Envisioning Future Head-Worn Augmented Reality Interfaces

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Motivation

- Augmented head-worn displays are becoming light-weighted and portable
- They have the potential to give users hands-free access to any information, anytime, anywhere without the need for any physical displays

Challenges in Everyday Usages

- Occlusion
  - Virtual content could be blocking important real-world objects/people
- Information Display
  - When/Where/How virtual information are displayed
  - How virtual content move/fix themselves related to the world/users

Future everyday AR interfaces should seamlessly react and adapt to the way we live, move and interact.

Demo Showcase

- Such interfaces barely exist nowadays
  - Limited insights into how such interfaces would look like, and how they would adapt to different contexts.
- In this project:
  - We illustrate our insights into how future AR interfaces could adapt to environment and user behaviors
  - Our proposed solution
    - Context-Aware AR Information Display

Context-Aware AR

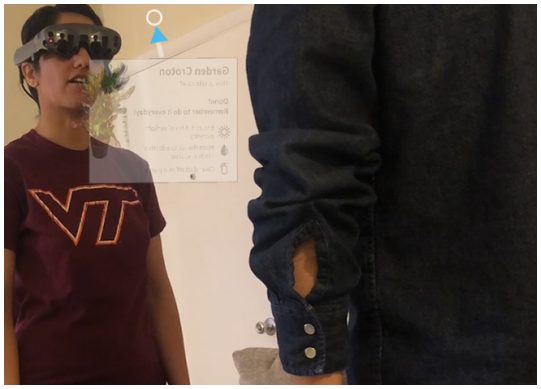
- Occlusion Management
  - Virtual information move themselves to avoid blocking real-world objects

Context-Aware AR

- Adapt to user activities
  - Virtual information change fixations from world to the display / user when needed

Context-Aware AR

- Conversation-Sensitive
  - Prompt related content automatically based on users' conversations with other people
  - Shrink to avoid interrupting conversations



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- https://hub.link/FNDWMWJ