collocated collaboration over 3D augmented-reality models

ExSitu team
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collaboration in VR environments

collaboration in the physical world

physical vs. virtual

Physical
Strong spatial references, common to all collaborators
Physical interactions and gestures

Virtual
Powerfull editing capabilities
Augmentation & annotation tools
Support for both personal and shared views
goals

Design and prototype AR techniques that support collocated collaboration over virtual 3D models
design approach

Build on spatial references and gestures that naturally exist in a physical space

Support personal and shared views that are aware of the relative position of collaborators to facilitate communication and coordination
some related work

[ Kiyokawa et al., 2000]
some related work

[ Grossman and Balakrishnan, 2008]

Figure 3. Location aware rotation. a) A widget is displayed indicating that a rotation can begin. b) When a rotation begins, viewpoint widgets indicate user viewpoints. c) Viewpoint widgets rotate with the scene. d) One user can align and snap to another user’s viewpoint.
some related work

Microsoft HoloLens: promotional video
available technologies

HoloLens technology https://www.microsoft.com/hololens

Meta http://www.metavision.com/
development platforms

Unity game engine

C#
Contact

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Fascinated by digital fabrication and DIY (do it yourself) methods?

From different perspectives:
- smart materials and sensing technologies
- software toolkits
- design & methodologies
stretchable user interfaces


shape-aware objects
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