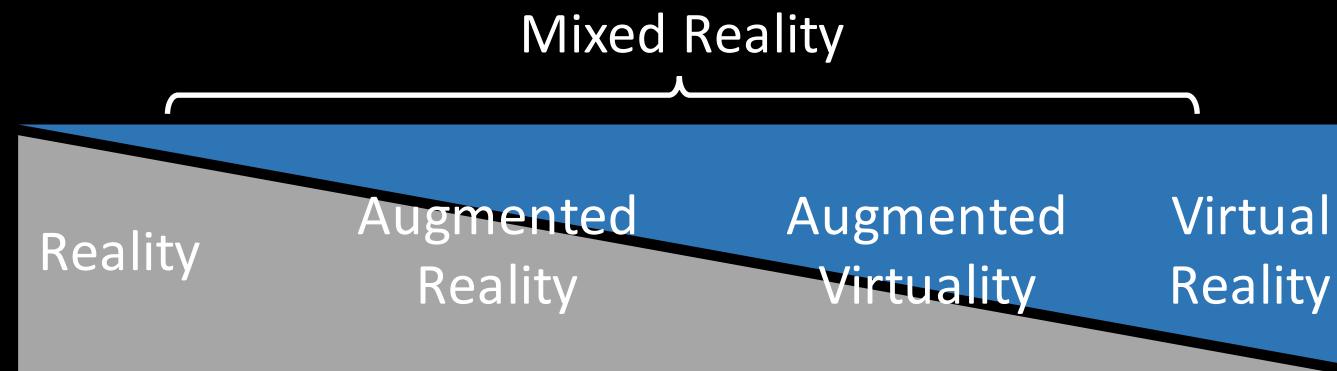


CS 775: Advanced Computer Graphics

Augmented Reality

Introduction

The Mixed Reality Continuum



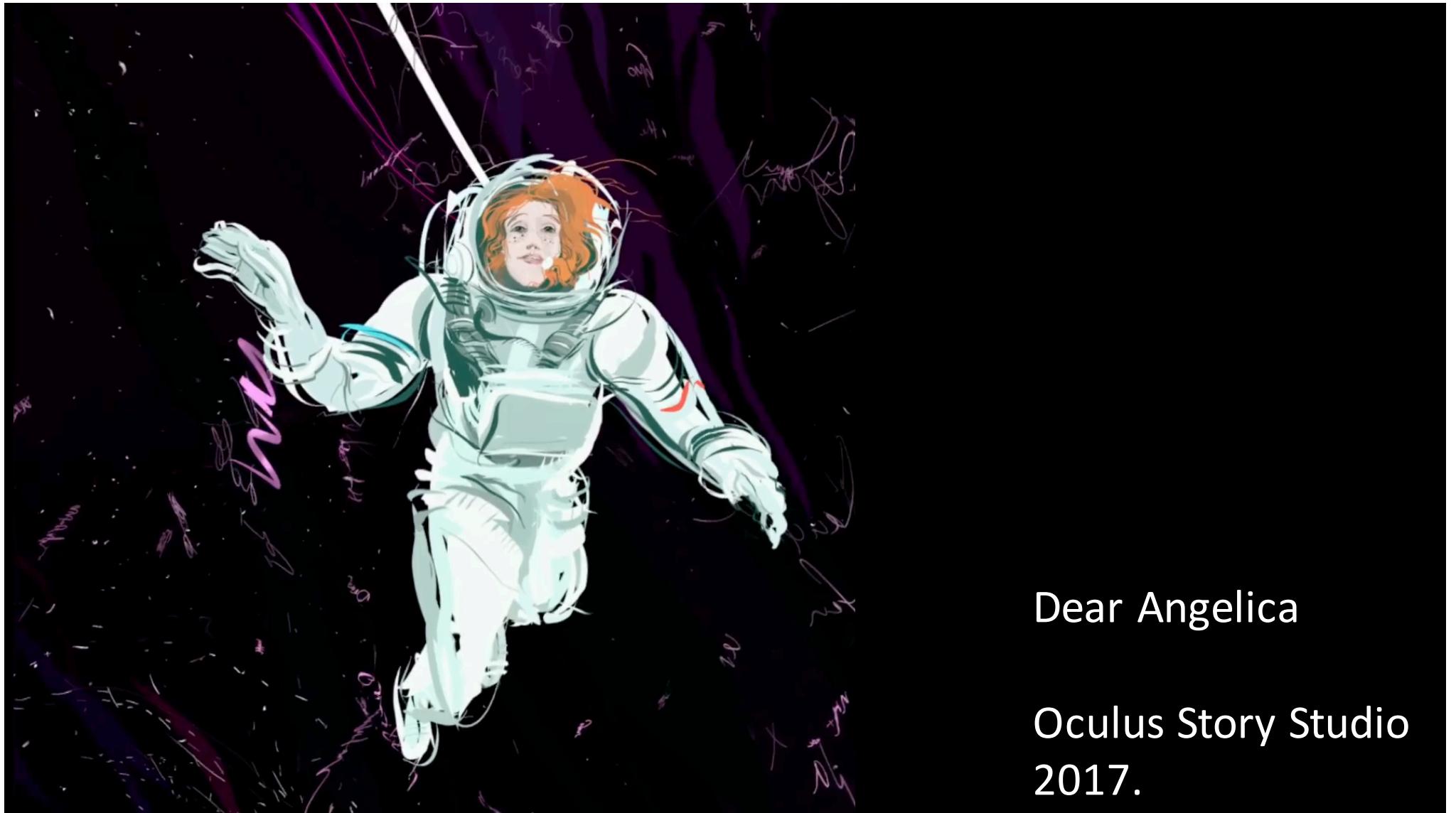
Augmented Reality: A class of displays on the reality-virtuality continuum, Milgram 1994

Virtual Reality

- Immersive Rendering.
 - Completely *Synthetic*
 - Interactive.
-
- Fast becoming the medium for *avant-garde* cinematic expression.



Oculus Dash, © Oculus Inc 2017



Dear Angelica

Oculus Story Studio
2017.

Visual Special Effects (VFX)

- Fuse the real and the synthetic.



- *Offline* and *online* parts.



- No or minimal interaction.

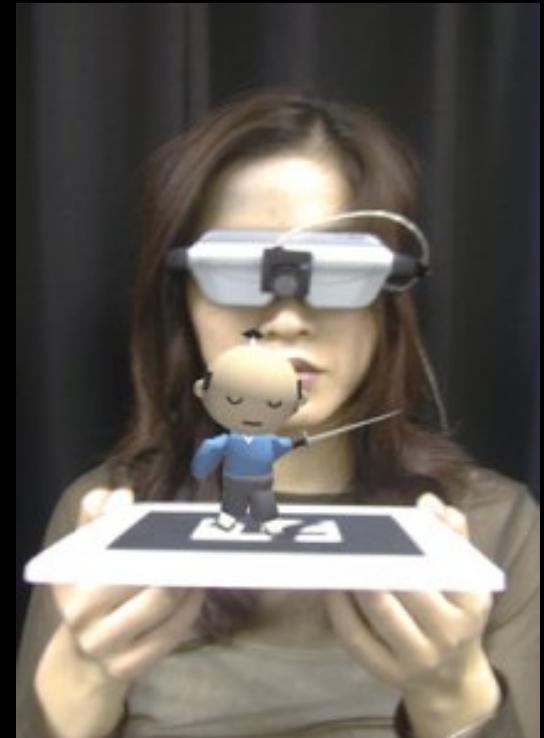


Life of Pi, Rhythm and Hues, 2013

Life of Pi, Rhythm and Hues, 2013

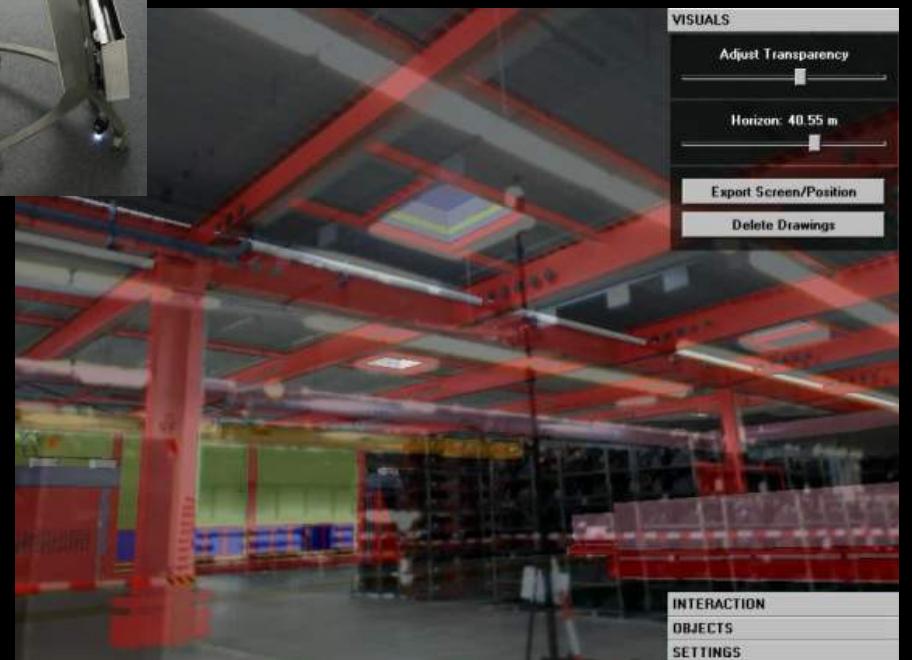
Augmented Reality

- Real-time.
- Interactive.
- Synthetic elements merged with the real world in three-dimensions.



ARToolkit, Hirokazu Kato, Mark Billinghurst, IWAR 1999

Industrial AR



Augmented Reality for Industrial Building Acceptance,
Schoenfelder and Schmalsteig, 2008



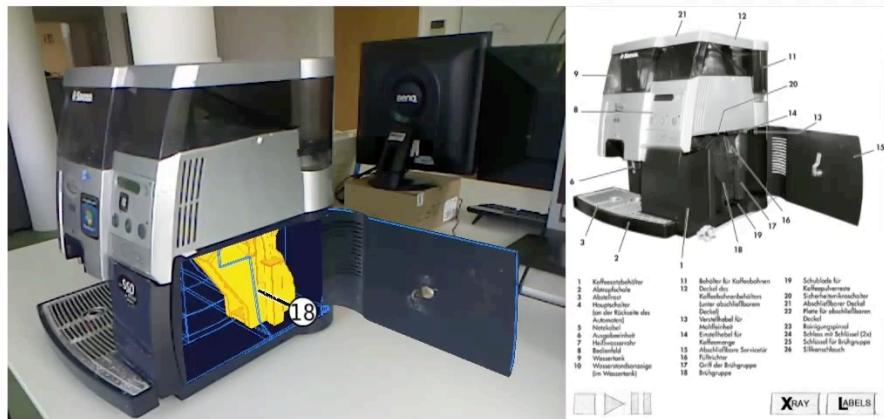
Augmented Reality Solutions for Construction Inspection,
SRI International

Home AR



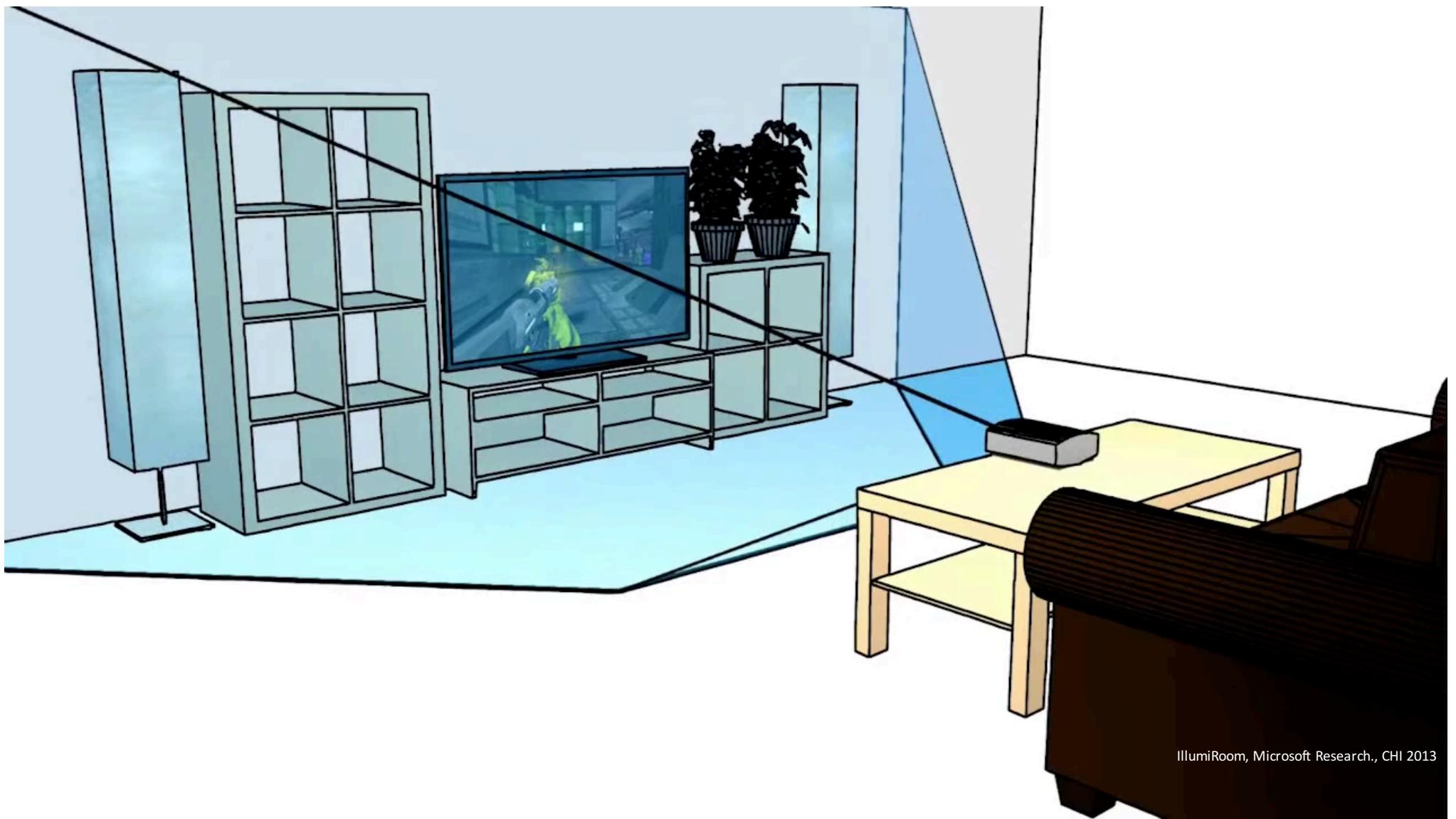
<https://somyx.com/content/augmented-virtual-reality-for-interior-design/>

Generate interactive Content



This allows us to transfer static image data to interactive AR/VR environments.

Retargeting Technical Documentation to Augmented Reality, Mohr et al., CHI 2015



IllumiRoom, Microsoft Research., CHI 2013

Milgram-Weiser Continuum

