The Mixed Reality Continuum

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

- Immersive Rendering
- Completely Synthetic
- Interactive
Virtual Reality

- Immersive Rendering
- Completely Synthetic
- Interactive

Oculus Dash, © Oculus Inc 2017
Dear Angelica (Oculus Story Studio 2017)
Visual Special Effects (VFX)

- Fuse Real and Synthetic
- Offline and Online parts
- No or minimal interaction
Visual Special Effects (VFX)

Capture the real world

Model the virtual world

Life of Pi, Rhythm and Hues, 2013
Avengers Infinity War Shot Breakdown (Framestore)
Augmented Reality

- Real-time
- Interactive
- Synthetic elements merged with the real world.
Augmented Reality Examples

- Advertising
- Navigation
- Digital Heritage
- Retail
- Education

https://somyx.com/content/augmented-virtual-reality-for-interior-design/
Augmented Reality (AR) is a view of the physical, real world environment that is augmented by synthetic, computer-generated elements.

It was coined by Thomas Caudell, in 1990, while working at Boeing.

AR straddles the disciplines of Computer Vision and Computer Graphics as it needs Vision to understand the real world and it needs Graphics to create the synthetic elements to augment it.
See Through AR

NASA, 2017
Spatial AR