Artificial Reality (Myrion Kruger, 1983)
Virtual Reality (Jaron Lanier, 1989)
Augmented Reality (Thomas Caudell, 1990)
Diminished Reality (Steve Mann, 2010)
Mixed Reality (Milgram & Kishino, 1994)
Mediated Reality (MediaLab, 1994)
Hybrid Reality (Parag Khana, 2012)
Physical Reality (My wife, 2016)
Transitions
How are we invited in?
A virtual “situation room”

Critical “on site” design review

The closing of though negociations

The very first encounter with someone (who could change the course of your life)
The goal is to build a virtual teleportation platform able to convey, minute by minute, the subtle and essential social skills of body language and non-verbal communication:

- Eye contact and facial expression
- Dynamic posturing and positioning
- Spatial behaviors and strategies
- Effective touch / manipulation
2010
Concept for a virtual teleportation base
Posture Platform

1 Posture Net (SPIN Server)
2 Posture Base (SPIN Client)
3 Posture Teleporter
4 Wi-Fi router
5 Audio amplifier/mixer
6 Projector
7 Speakers
8 Camera array
9 Posture Pad / iPhone
10 Headset with microphone
11 Posture Base (Panoscope 360°)
Montreal - Paris
(array of digital cameras)
2012
With Audrey in the woods
(Kinect, Xtion, PrimeSense)
2013
The Drawing Room
(co-design your own environment)
2014
Textured mesh experiments
2015
Output to DK2
(as alternative to room scale VR)
2016
Social WebVR
We have...

- Immersion (room-size or HMD)
- Real-time 3D capture (Rig of depth cameras)
- Network architecture

What needs work...

- Instant identification / readability
  - Face features recognition
  - Movement
  - Dynamic positioning
- Fluidity / latency
  - Define minimum requirements
  - Compression
- Scalability
  - Multiple point-to-point (small scale ad-hoc gatherings)
  - Central server asset manager (metaverse architecture)
Recap:

There is one, experience based, reality
Immersion is key to presence and engagement
WebVR is cornerstone for collaborative construction of virtual spaces
Social WebVR (not Mars) is where we are collectively headed
We need to be able to show up AS WE ARE at every moment
Avatars are not up to the social skills we have evolved
Removing HMDs should not mean exile
Transitions help create a unified space

Therefore...

We need to work hard to allow full body 3D capture in WebVR
Who can help in this?

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