

# Virtual Simulation: Past, Present & Future

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## DISCLOSURES

- Nursing Education Consultant for Wolters Kluwer
- Technology Scholar in Residence - National League for Nursing

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## LEARNING OBJECTIVES

1. Discuss the educational uses of Virtual Reality Simulation
2. Examine future implications for the use of Virtual/Augmented Reality for health



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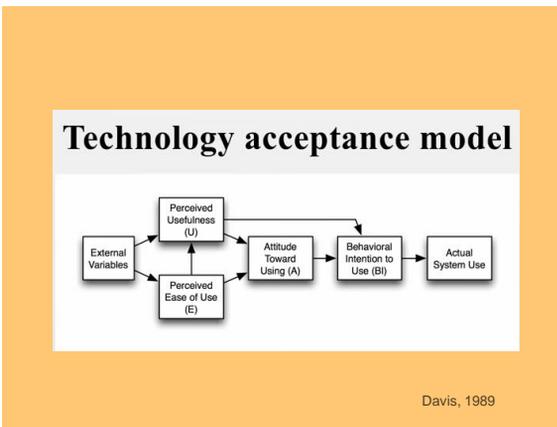
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## PAST >>>>> PRESENT




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## Beginnings of Virtual Reality

- 1860's: Digital Technology – 360 degree murals
- 1920's: Flight Simulators – Edwin Link
- 1950's: Sensorama: Interactive Theater Experience
- 1960's: Head mounted Displays – suspension device
- 1970's: First Interactive Map –MIT (Walk through Aspen)
- 1980's: Virtual Reality Used On Projects with NASA
- 1990's: Virtual Reality Gaming Tech: Jaron Lanier
- 2003: Second Life and other Virtual Platforms
  - Popular in education 2008, then attention
- Present: Augmented VS Virtual

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## Medical Expert Presentations




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## American Nurses Credentialing Center (ANCC) Virtual Poster Presentation



• <http://www.anccmagnetconference.org/index.cfm>

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## Early Cardiac Event Simulation Developed through Tecne Grant



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# Inclusivity Assignment



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## Cody Wheelwright



"How I thought I would be treated affected the way I interacted with others."

"Other Avatars wouldn't come close to me."

"If I had a choice I would lose the wheelchair."

"I found my inner voice.. I felt empowered to do things I wouldn't do in real life."

"Through this I gained an appreciation for my biases and prejudices."

"Homophobia .. Why were other male avatars afraid I was hitting on them?"

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## Education



### Virtual World Educator Roundtable

- Meets every Thursday (usually at 11:30am SL time) @ Second Life VSTE Island
- <http://www.vwer.org/>

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## VWER Field Trip




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### University of Glasgow NP Programs



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### Second Life Role Play



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### Virtual Hallucinations SL



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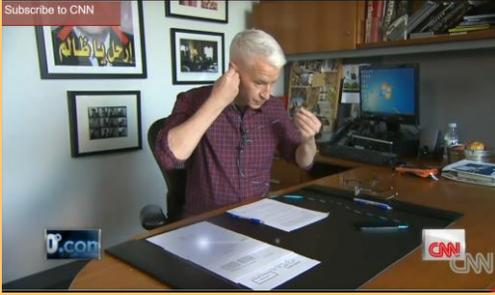
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## Hearing Voices



<https://store.patdeegan.com/collections/simulation>

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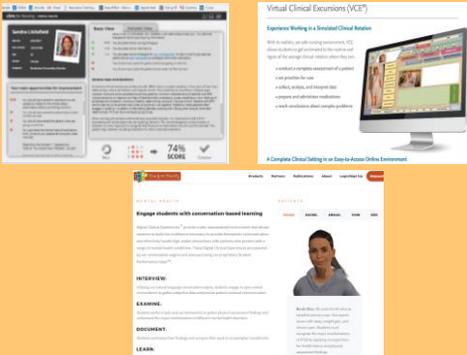
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## Virtual Simulation



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## Virtual Public Health Clinical



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Two Communities created for Public Health  
Windshield Surveys



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### Back to The Future???



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### What Will The Future Bring?



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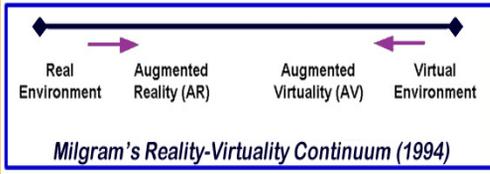
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## Virtual??? Augmented???



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## Use of Virtual Voice-Assisted Technology in Healthcare



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## Connected Healthcare



[https://youtu.be/LKyC\\_2E266s](https://youtu.be/LKyC_2E266s)

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### Virtual Reality Desentization Therapy



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### Virtual Reality Pain Management



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### Holographic Telepresence



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### HoloLens



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### HoloLens User Perspective



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### U of Nebraska Medical Center



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### The Shard Virtual Reality Slide



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### CONTACT INFORMATION

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