Virtual and Augmented Reality: Crossing New Frontiers in Educational Spaces and the Workplace

Presented by:

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OVERVIEW

- Misconceptions surrounding VR and AR
- VR & AR Use Education to Industry – Tie In
- Scholars in Practice for Industry, Education and Culture
- Value of VR and AR Teamwork
- Value and ROI to the community
- Let’s Experiment!
MISCONCEPTIONS ABOUT VR AND AR

VR is all about Fun, Games, and Entertainment

VR is Very Expensive, especially at the Enterprise Level

Most people get nauseated and have headaches

IT’S COMING FOLKS TO YOUR WORKSPACE SO GET READY!!


https://visartech.com/10-common-misconceptions-about-vr-training/
VR USE EDUCATION to INDUSTRY

Medical
Business
Bio Engineering
Industrial Engineering
Mechanical Engineering
Geospatial
Modern Languages
Cultural Awareness
Marketing
Ancient and Modern Art
Military Applications
Dr. Yusheng Feng

- Yusheng Feng, Ph.D.
- Professor, Mechanical & Biomedical Engineering
- Founder and Director, UTSA Advanced Visualization Lab
- Co-Founder and Director, NSF-funded Center for Simulation Visualization and Real-Time Prediction

Dr. Yusheng Feng
Dr. Mark Appleford

- **Areas of Teaching Interest:**
  - Tissue-Biomaterial Interactions;
  - Cellular Engineering;
  - Tissue Engineering;
  - Biocompatibility

- **Areas of Research Interest:**
  - Protein signaling of mechanotransduction in bone cells
  - Bone reconstruction following osteosarcoma and severe trauma
  - Investigation of angiogenesis applied to tissue engineering strategies
  - Experimental and theoretical mechanical behavior of orthopedic implants and tissue-material hybrids
VR USE INDUSTRY/EDUCATION

Video by Patrick Stockton:

VR Intern with Dr. Appleford

https://utsacloud-my.sharepoint.com/:f:/g/personal/patrick_stockton_utsa_edu/Ekmw6mx7wqRGm7AdeZUR-4IBUZb9lc70IxQ5i-77lt6n6g
Dr. Michael Rushforth

VR in Modern Languages and Literature

http://www.utsa.edu/today/2017/02/vrcourse.html


https://www.paisano-online.com/arts-and-life-articles/around-the-world-in-80-minutes/
Dr. Michael Rushforth

- UTSA Senior Lecturer in Spanish, has been awarded a $12,600 grant from the UTSA Office of Information Technology to research the effectiveness of using virtual reality (VR) in the classroom. The grant will fund virtual reality headsets for the department computer lab that students will use for culture-focused assignments in their introductory Spanish classes, allowing them to take virtual tours of culturally significant sites in Spanish-speaking countries, such as El Zócalo in Mexico City, El Escorial in Spain, and La Plaza de Mayo in Argentina. Students will be assigned pre and post reading and writing activities that will guide them to use their language skills at the same time they are gaining a greater understanding of what those sites mean in the broader culture of their home countries.

- Rushforth also hopes to explore other applications of VR that are emerging in the area of language instruction -- simulated conversation partners, immersive training environments for interpreters, etc. Having the equipment in place will allow the UTSA Department of Modern Languages and Literatures to be at the forefront of developing innovative programs for language learning.

- Students in Rushforth's introductory Spanish classes have been experimenting with virtual reality for several years. His classroom was featured on Kens5 News and UTSA Today in the spring of 2017.
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Located in: AET 0.202 Building

VR EDUCATION & TRAINING LAB

LABSTER
Google
Lenovo

OIT Virtual Reality Labs
VR AND AR PROJECTS CULTURAL EDUCATION

Students Experience “Traveling While Black” in Virtual Reality in OIT Sponsored Course

https://www.utsa.edu/oit/news/articles/2019/05/StudentsInBlackHistoryCourseUseHeadsetsnews.html
TEAM PROJECTS: Ph.D. JOHN QUARLES

John Quarles
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Community Projects: Office of Information Technology

- Presentations for the Chambers on VR
- Presentations for School Districts
- Presentations in Sponsored and Testing Course
- Presentations Local Workforce Development Board
- Presentations for Seniors Local Library:
  - Executives
  - Programmers
  - Interns
  - Training Team
New Frontiers Microsoft HoloLens 2

- https://www.youtube.com/watch?v=6lxGU66w0NM
Google – Lenovo Daydream Labster Launch!
https://www.labster.com/simulations/demo/

Merge Virtual and Augmented Reality with Holograms
https://mergevr.com/

Let’s Experiment!
Audience Hands On Exploration
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QUESTIONS? COMMENTS! FOLLOW-UP......

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