Achieving a Small-Class Feel in Large Lectures: the Promise of 360˚ Broadcasting

FEATURING:

Bryan Carter, PhD
Associate Professor, Africana Studies
Director, Center for Digital Humanities
CUES Distinguished Fellow
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Catalyzing the practice of educational innovation and scholarship on teaching and learning at the University of Arizona

Guadalupe (Guada) Lozano, Ph.D.
Associate Research Professor, Mathematics
Director, External Relations & Evaluation, Mathematical Sciences

Director for CUES

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Bryan Carter, PhD
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Meet Our Fellows
Learn about the people and projects advancing our mission

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Today’s Outline

• Introduction—CUES Director Guada Lozano
• Presentation by Bryan Carter

Achieving a Small-Class Feel in Large Lectures: the Promise of 360° Broadcasting

• Panel Q&A Session
• 360° Broadcast experience
Today’s Panel

• **Bryan Carter**, Associate Professor, Africana Studies; Director, Center for Digital Humanities; *CUES Distinguished Fellow*

• **Shelley Staples**, Associate Professor, English; Associate Professor, Second Language Acquisition/Teaching - GIDP; *CUES Distinguished Fellow*

• **Mahmoud Azaz**, Assistant Professor, School of Middle Eastern and North African Studies; *CUES Distinguished Fellow*
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- CUES, Acknowledgements
- How this study evolved...
- Early attempts to address distance and context
  - Correspondence
  - Radio and Television
  - Internet
  - Faster computers and graphic capabilities
What is Virtual Reality?

- **Virtual Reality**, brief primer...
- Computer generated VR Immersion
- **Virtual Harlem**, early attempts to engage students and immerse them contextually
Virtual Harlem

Contextualization and Embodiment

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Virtual Harlem

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Virtual Harlem

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What is 360˚ Immersion?

• 360˚ Immersion, brief primer...

• Created with a traditional or 360˚ camera

• 360˚ Experiences, introducing students to a study abroad experience
Let’s visit Paris!
So, what’s the difference between Virtual Reality and 360° Immersion?
Why 360˚ Immersion for CUES?

- Consumer interest...
- Smartphones take immersion to new levels... (iPhone 2007)
- Panoramas and QTVR
  - Internal sensors allowed for some degree of navigation (rotation)
  - 2015 Youtube rolls out support for 360 video viewing (mostly commercial development)
- Consumer adoption of omnidirectional cameras and...
360° Immersion evolves...

- 360 video streaming available on YouTube and FaceBook (2016)
- YouTube makes 360 streaming available to public in 2016 (1440p)
- MPEG compression makes higher resolution streaming 360 viable (2017)
- 2017 study abroad trips to Paris make use of low resolution 360° digital storytelling
- 2018 better quality 360° cameras for study abroad digital storytelling experiences

Paris From A Student’s Perspective
360° Broadcasting evolves...

• 2019 began broadcasting in 360°, 4k to YouTube and in traditional videoconferencing to Zoom

• Informal feedback from students on experience
Feedback...

• During the class I tried out the You Tube 360 on my computer...

• I really enjoyed your 360 videos...

• Since I was unable to attend the live sessions...
The CUES study...

• In what ways might we enhance the experience within increasingly complex immersive environments?

• How might we better personalize the immersive online learning experience?

• How do we address differing levels of access to immersive environments?
How do you broadcast in 360 °?

- Streaming Platform Options
- YouTube, Vimeo, Kaltura, ReStream, Visbit, etc...
- Equipment setup and software
Let’s check out a Live 360° Broadcast

- **Instructions**...
- **Mobile or Tablet** - Install YouTube and Scan Code
- **Desktop/Laptop** - Click Link (will go to YouTube)
Let’s check out a Live 360° Broadcast
For Mobile Devices - Scan QR Code
Live 360° Broadcast Experience

- Lessons learned so far...
- Where will year 2 take us?
Questions?
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