Immersive Extended Reality, the Metaversity, and the Future of Online Higher Education

Presented by Dr. Nancy Kucinski - ACU and Dr. Doug Darby - LCU

The Researcher Team

Nancy E. Kucinski, Ph.D.
Abilene Christian University
Professor, School of Professional Studies

Doug Darby, Ph.D.
Lubbock Christian University
Associate Professor, College of Business

Rich Tanner, M.S.
Abilene Christian University
Assistant Professor, School of Information Technology & Computing

Brian G. Burton, Ed.D.
Abilene Christian University
Associate Professor, School of Information Technology & Computing

Scott Hamm, Ed.D.
Abilene Christian University
Assistant Director, Adams Center for Teaching & Learning

Chaz McKell
Abilene Christian University
Research Assistant

Overview of the Research Questions

Do students perceive a higher level of engagement when provided with an immersive learning environment?

What were the outcomes of a collaborative project between an online professor and the technology students?

Study Background

- Origins of Virtual Learning Environments

- Metaverse Evolution & Educational Potential

- Metaversity Concept

- Technology Driving Immersion

- Rationale for the Study

SECOND LIFE™

Literature and Pedagogical Support

- Online engagement and the Metaversity environment

- Deficit of studies on impacts of engagement in immersive environment

- The importance of synchronous online sessions with student learning
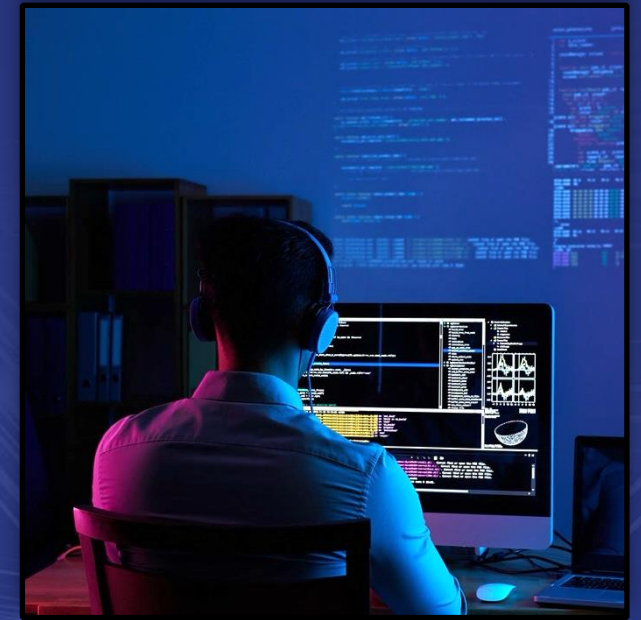
The Winter Survival Exercise

- The purpose of the exercise is to demonstrate how a diverse team performs better on certain tasks than an individual.

- Passengers survive a plane crash in a winter environment.

- Individually and then as a team, participants must prioritize 12 items based on their importance for survival
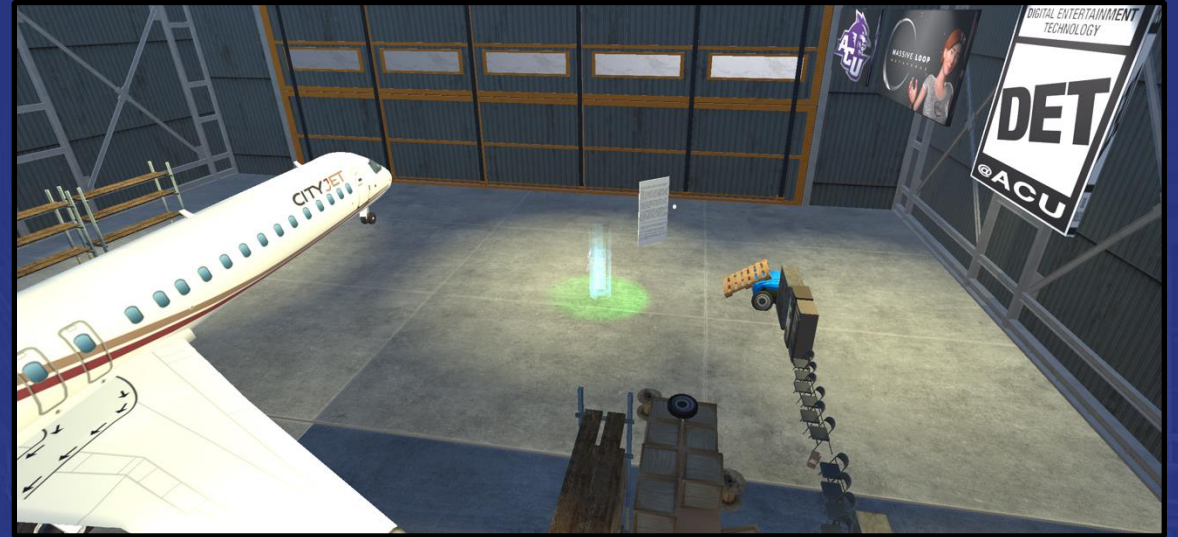
Creating the Environment

- Project Process and Timeframe.

- Use of Massive Loop and Unity Game Engine.

- Creation of 3D Models and Avatars.

- Onboarding and Immersive Experience Setup.

- Interactive Group Collaboration.

- Scenario Completion and Debrief.
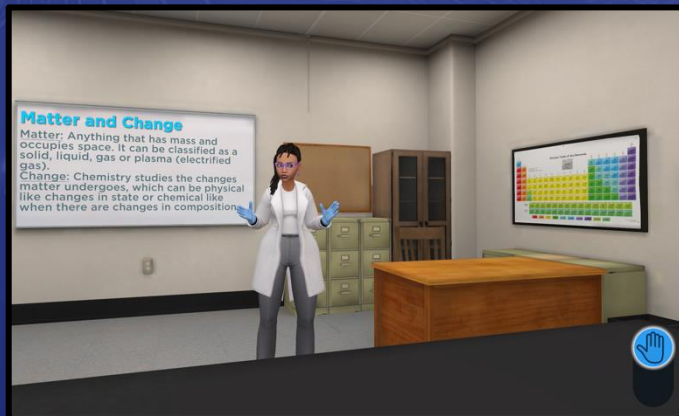
Creating the Environment

Findings of Research Question 1

Do students perceive a higher level of engagement when provided with an immersive learning environment?

- From a very small sample size (18). 60% of students surveyed indicated that they "completely agree" with the statement, "I feel engaged with the course when I attend synchronous sessions."

- 66% indicated that they completely agree with the statement "Synchronous Sessions add value to the course."

- 100% "completely agree" or "agree" that they felt engaged with the Winter Survival exercise.

The Metaversity

- What is the Metaversity?

- Why the Metaversity matters in education

- Key Features of the Metaversity

- The Role of Faculty and Students

- Setting the Stage for Faculty Involvement

Findings of Research Question 2

What were the outcomes of a collaborative project between an online professor and the technology students?

- Interdisciplinary engagement between an Online Management professor, Digital Entertainment Technology Professor, and technology students.

- Management professor acted as the technology student's client.

- Digital Entertainment Technology professor began to implement learning outcomes related to project management.

- Inclusion of online tools (e.g., Discord and Trello) fostered enhanced interactions and engagement.

Future Research Direction

- Continued refinement of the Metaversity Concept

- Improving Student Engagement in Immersive Environments

- AI and Personalized Learning in Immersive Environments

- Long-Term Impact on Higher Education

- Next Steps: Scaling and Expanding the Study

Comments & Questions

Nancy E. Kucinski, Ph.D.
Abilene Christian University
Professor, School of Professional Studies
nrk21a@acu.edu

Doug Darby, Ph.D.
Lubbock Christian University
Associate Professor, College of Business
doug.darby@lcu.edu