BLENDING REALITY: BLENDER & AERO

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INTRODUCTION

This workshop aims to lead students on a transformative journey into the world of Augmented Reality (AR) and digital art. The workshop is aimed at students (ranging from middle school to college freshmen) and will serve as an introduction to the application software, Adobe Aero, and its contributions to augmented reality artwork.

HYPOTHESIS

Engaging participants in a step-by-step process to create interactive three-dimensional art pieces using the Adobe Aero application will lead to increased understanding and proficiency in IT skills, as demonstrated by their ability to manipulate functionalities within the software.

TECHNOLOGIES

Blender - To create 3D objects & animations

Aero (Adobe) - Augmented Reality integration

WHAT IS AR?

Imagine you have a magical pair of glasses or a special tablet that can turn your world into a playground of wonders! That's Augmented Reality (AR).

Augmented Reality is an interactive experience that combines the real world and computer-generated content.

OUTREACH WORKSHOPS

- Tap Expo
  - Demo day to promote program
- Atlanta Science Festival
  - All day STEM event in Piedmont Park
- Classroom workshops
  - Full workshops in introductory IT classes to promote IT

ACKNOWLEDGEMENTS

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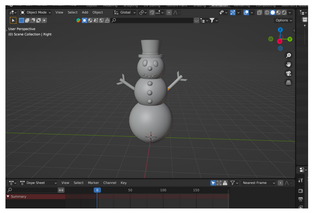
WORKSHOP CONTENT

GOAL : To teach basic 3D modelling and introduce augmented reality

- 1 hour workshops
- Blender tutorial
  - Students build an 3D object (snowman) in Blender
- Adobe Aero experience
  - Students import pre-built models
  - Students interact with immersive environment



OBSERVATIONS

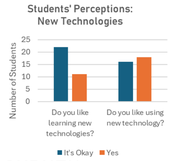
- Initially, students showed apprehension.
- As they became more familiar with the tools and saw their own creations in Aero, participation increased.
- Some students expressed concerns about downloading the app (possibly influenced by faculty biases).

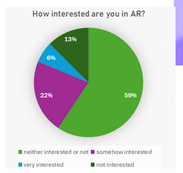
RESULTS

- Over 100 Students engaged actively with our AR demonstrations, showing a keen interest in exploring immersive experiences.
- 32% of Students expressed interest in learning and using new technologies, with 26% in Augmented Reality (AR) and 41% in 3D modeling.
- Sharp decrease in students who stated they would need help with the material from 56% to 36%.
- Participants benefited from hands-on learning experiences, with 60% indicating they found the workshops enjoyable, while 64% reported finding them engaging.Students rated the average difficulty of the material as 4.8 out of 10.
- Students rated their workshop experience positively, suggesting that they found the workshops engaging, enjoyable, and beneficial overall

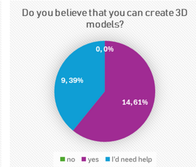
Our interpretations of the results: These trends collectively highlight a strong interest in technology-related topics, coupled with a need for support and guidance in acquiring new skills and knowledge in areas such as AR and 3D modeling. They also demonstrate the importance of providing engaging and effective workshop experiences that meet the needs and expectations of participants.

PRE-SURVEY:





POST-SURVEY:



CONCLUSION

TAP Expo, Super Saturday Series (S3), and our In-Class Workshops offer tailored opportunities for students to engage with Augmented Reality (AR) and hone their 3D modeling skills using Blender and Aero. Through these sessions, we aim to foster creativity, technical proficiency, and an understanding of AR technology across diverse age groups.
Central to our approach is the use of Aero, an AR art development platform, to facilitate hands-on learning experiences. Our goal is to inspire and empower students to explore the possibilities of AR and unleash their creativity in the digital realm.