XR for Everyone, Everywhere

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KEYWORDS

Virtual Reality, Augmented Reality

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A vast majority of narrative XR experiences are designed to be experienced by an audience of one. The consequences of this are long lines at events, festivals, and conferences where only a few people get to see the content, keeping an exciting new storytelling medium out of the mainstream.

In contrast, we at Parallux create and deliver XR content from the ground up for dozens of people at once. Audiences see and hear the content simultaneously while together in the same physical and virtual space. The result is an experience that is fundamentally different from XR for the individual viewer - one that is more powerful and natural, with the added potential to scale to mass audiences.

We first demonstrated a large-scale XR installation with CAVE, which had its technical debut at SIGGRAPH 2018 and US Premiere at Tribeca Immersive in 2019. CAVE is a shared narrative, six degrees of freedom (6DoF) virtual reality experience. In 4 days, 2,000 people attended its premiere at SIGGRAPH 2018. Thirty participants at a time each saw and heard the same narrative from their own individual location in the room as virtual avatars.

The public loved the experience and participants acted like an audience you'd expect to see attending live theater or a cinema. People held hands, whispered to each other, laughed and gasped - exhibiting moments of intimacy and connection that are missing from most XR experiences. We found that we were able to combine the unique magic of theater with the reproducibility and special effects of movies, and people walked away feeling like they had shared a fantastic moment together.

Likewise, we demoed the first chapter of a new piece called MARY AND THE MONSTER (MATM) at SIGGRAPH 2019 in partnership with Magic Leap. Six participants entered a dark and gothic regency style room, and gathered around a table to watch a miniature holographic stage performance using augmented reality headsets. The ability for audience members to see each other made the experience extremely intimate and dynamic.

For our talk, we will discuss our approach to creating and delivering large scale XR experiences, both location-based and remote. At first, we created large scale XR experiences for many dozens of audiences at a time to address scale, throughput, accessibility. In light of COVID-19, we've had to re-evaluate XR at scale. Now we are using real-time technologies to adapt content to fit platforms that people already have access to, like mobile AR. We are also building new remote XR experiences for conferences, festivals, and collaborative virtual production movie shoots.

Our intent will be to inspire artists, researchers, and developers to explore creating their own multi-person content, and to introduce audiences to the vast potential of co-located XR. We will walk through how we produced CAVE and MATM in-house, and how we've worked with other creators, such as Sensorium for META-MORPHIC (Sundance, 2020), Netflix, and San Diego Comic-Con to transform their work into social experiences for multiple people at a time. We will show clips and videos of our work.