

# VR/AR/MR For Everyone!

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## ABSTRACT

The attendees at the SIGGRAPH Conference run the gambit from indie contractors to multi-million-dollar studios. After attending the conference for the past 7 years, I kept hearing the same thing from many small studios and/or individuals. They feel a lot of the emerging technology that is premiered at SIGGRAPH seems out of reach or impractical for them to utilize. Our panel works to challenge this assumption. By bringing in industry professionals from various disciplines and levels, we can show how anyone from an independent contractor to a large studio can implement new tools and technologies. Specifically, our talk will focus on encounters with AR/VR/MR and how we worked it into our pipeline. Whether someone is out there making the next big movie or trying to pitch to a client in a conference room setting, they will find attending this panel useful. We will talk about the practical applications of AR/VR/MR and how we have explored these technologies over the years.

## CCS CONCEPTS

• **Human-centered computing** → **Virtual reality; Mixed / augmented reality; Virtual reality; Mixed / augmented reality; Virtual reality**; • **Computing methodologies** → **Mixed / augmented reality**.

## KEYWORDS

Virtual Reality, Augmented Reality, Mixed Reality, VR, AR, MR, real-time, future

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## 1 OVERVIEW

Representatives from Digital Domain and Blue Sky will speak about how individuals that are a part of a larger company can make a difference when it comes to implementing these technologies. The small studio and lone freelancer are also represented in our panel and will shed light on how using these technologies made an impact on productivity, pipeline and bottom line.

Virtual Reality, Augmented Reality and Mixed Reality can soon become a tricky topic. The umbrella term “Realtime” can cover all three, but there are advantages and disadvantages to each. Realtime refers to all XR technology, which itself stands for extended reality. Virtual reality (VR), Augmented reality (AR) and Mixed reality (MR) have all been game changers in design studios in recent years. It is essential to the survival of these companies to familiarize themselves with this new tech, which is often expensive and time consuming. Through the firsthand accounts of the panel members, attendees can better understand the possibilities in this field without having any experience or very little themselves. There will be discussion about when it is most practical to use each and the challenges you can run into.

The SIGGRAPH community does not only have people making movies, advertisements, and television shows. A large part of the people in our industry also have a good amount of B2B services being provided which include VR, AR, and MR. These are one of the only ways of showing off various places, objects and experiences that are otherwise impossible to visit. This technology is being used to give facility tours of far away places, making interactive product demonstrations, and even immersing the user in an entirely new environment. Our panel will talk about the various applications that Realtime presents and how to best fit it into a nontraditional pipeline. We will conclude our discussion with a postmortem of projects we have worked on in the VR/AR/MR space. Panel members will explain lessons learned and how we will adapt to this new technology moving forward.

## 2 PANELISTS

Our panelists range in experience and studio size to bring a dynamic range to our discussion.

### John Canning

*Executive Producer-New Media and Experiential, Digital Domain*

John has helped companies and causes to not only tell their stories through dynamic media, but also leverages disruptive and transformative technologies to maximize their impact. John’s

creative outlook and knowledge about the implementation of new media will be crucial in bringing a unique understanding of the role of XR in a large studio setting.

#### **Elvis AU**

*Immersive Technologies Engineer, Blue Sky Studios*

Elvis was able to utilize his previous position as Technical Lead of the Stereoscopic Team and bring a new department at Blue Sky Studios, the Immersive Technologies Group. He is a great example of how a passion for emerging technology is necessary in developing new workflows in a large studio. His input and story will prove that one person can make a difference. Our panel will benefit from his insights of AR/VR and how they can be incorporated into a well-established pipeline.

#### **Stephen Phillips**

*Co-founder CTO, Theia Interactive*

Stephen is well versed in the real-time engine universe. His company, Theia Interactive, helps businesses tell their stories through stunningly accurate and life-like real-time visualizations and interactives. As a co-founder, his insight is will bring to our panel a unique perspective. The information Stephen brings to the table will cause attendees to realize how they too can start a business by implementing new technologies.

#### **Michael McCarthy**

*Owner, Super Symmetric Studio*

Mike is an accomplished 3D artists and trainer from Boston, MA. His skills in the 3D field are built on many years of fine arts training. Character and VFX are among his passions, and he has contributed to various publications involving these two components. He has been an educator for many years, and recently served as the head of the Animation Department at Northeastern University. As an independent contractor he has had a vast array of experiences in tv, film and games. His perspective as a solo artist and his first hand experiences will give insight on how to adapt to various pipelines and workflows when it comes to XR.

#### **Samuel Conlogue**

*Visualization Director, Infusion Studios*

Samuel started as a solo freelancer and developed his company over the past 18 years, always leveraging the latest technology to his advantage. Because of his ability to adapt to and identify emerging technology, he has been able to keep his company on the cutting edge. Three years ago his company was purchased by a multi-million dollar company and enabled him to build a new office and delve even deeper into the XR field. Currently he is developing XR experiences for B2B and B2C clients. He is entirely self-taught, and it is because of conferences like SIGGRAPH that he can network and stay up to date on all technological elements.

### **3 EXAMPLE QUESTIONS**

In our panel, we will discuss questions such as:

- When did you first learn about Realtime/XR?
- How practical did it seem to work into your existing pipeline?
- What specific XR technologies have you used in your company/projects over the last year that drastically changed workflow and/or your own capabilities?
- How much of this technology would you consider worth while? How much of it did you realize was not essential?

- While attending SIGGRAPH over the years what moment stands out to you as the epitome of Realtime advances?
- How have you benefitted from the SIGGRAPH community? Is it talking to like minded artists to see how they implement technology, or was there a specific panel or event you attended that opened your eyes to implementing this new technology?

### **4 CONCLUSION**

We realized that bringing technology to a level everyone in the professional world can understand and see themselves implementing was a necessity. Last year, we did a Birds of a Feather about the uses of Realtime Rendering, VR and AR in unconventional ways. It was very well attended with over 50 people and standing room only. The general feedback we received was that there were not enough talks like this at the conference. That is the exact reason we are proposing that this panel be presented to the SIGGRAPH community.

We aim to reach the audience at SIGGRAPH that may feel overwhelmed by the large company presence and emerging technology that that is premiered at SIGGRAPH. Through our own experiences we will share how the technology that we saw years ago at the conference is now a part of our everyday lives. It wasn't too long ago that XR was a curious wonder, and to many it still is. We want to encourage the individual to keep an open mind to the implementation of XR in their workflow or workplace and instill in them a sense of motivation. One individual can make a difference.