

Research Statement, Seth Hunter

Our culture's transition towards a digitally integrated world is fundamentally changing who we are and how we relate to each other. Through a confluence of research, industry, and society – interfaces are gradually becoming extensions of our minds, bodies, and behavior.

As we shift towards this mixed reality we are adopting social norms that substitute virtual representation for personal interaction. Digital services provide media for consumption but are not always designed to invite creative expression. These trends are legacies of the information age. How can we design tools to harness the potential of new media and support an age of participation?

As a creative technologist I proactively build systems that enable new forms of personal expression, creativity and social engagement. My intent is to design technologies that bring people closer to each other in more natural ways. I want to empower participants to take ownership of media as they are using it.

To accomplish this I design interfaces that integrate physical and digital spaces in more intuitive ways. I program software, display technologies, and sensors to respond to human actions like acting, composing, touching, and speaking – as well as human states like attention, presence, proximity, and eye contact. By focusing on supporting more natural interactions, I hope to increase the potential for people to feel connected and empowered in digitally mediated environments.

The development of integrated interfaces is an interdisciplinary process. It requires interface design, HCI research, programming, hardware integration, and artistic inspiration. I have experience in all of these roles. The diversity of my background and my research at MIT enables me to identify trends in technical areas such as augmented reality, computer vision and machine learning, that can be applied to more creative and social domains of human experience.

In my recent work I utilize this knowledge to design more socially engaging video communication systems for families at a distance. Current video conferencing systems do not enable people have shared experiences in a virtual space of their own. I am designing a platform called *WaaZam* which composites users and objects from separate physical locations with digital media in the same virtual space. The platform enables participants to customize the environment during a video session. We are particularly focused on examining new tools within the environment that support creative modalities such as customization, improvisation and storytelling.

I believe it is the responsibility of creative technologists to impact communities by designing tools like *WaaZam* that facilitate more meaningful social interactions and empower people to be creative participants in digital culture. We are transitioning to age where the distinction between the digital and physical is becoming less important than the question of who we will become as a result of the merger of the two.