The Nature of Collaboration

Andrew Bluff and Andrew Johnston, both at the University of Technology Sydney in Australia, collaborated with Stalker Theatre on numerous multi-disciplinary interactive stereoscopic performance environments.

Andrew Bluff’s collaborations with Stalker Theatre, one of Australia’s leading immersive physical theater companies, are not just a showcase of technology. From the beginning of the planning stages all the way through to the final performance, each project exemplifies a two-way, or even three-way, interactive relationship—a true collaboration. It’s not a matter of simply writing a soundtrack for someone else’s visuals or hanging a projection behind someone else’s choreography.

“Often collaborations can be very one sided, with the artists using the technical partner as a tool for their own practice or, conversely, the technologist using the artist as a promotional device to showcase their own technology,” Bluff says, adding that he avoids such scenarios because they produce unbalanced, simplistic and creatively unfulfilling results. “For me, it is important that the technologist enters the collaboration as an artist in their own right and that the development process becomes one of exploring how to combine the two, or more, distinct art forms, rather than how one may use the other for their own gain.”

Currently based at the University of Technology Sydney (UTS) in Australia, Andrew Bluff thus considers himself to be an artist and a developer. The creation of both software and art requires brainstorming, experimentation and systematic planning, he says.

Along with his longtime collaborator, Dr. Andrew Johnston, Bluff has used his coding chops and aesthetic sensibilities to collaborate with Stalker on multiple projects, usually gargantuan stereoscopic interactive 3D productions that blur the boundaries between audience, performer, listener, dancer and technician. Together, the two Andrews authored a paper about one such collaboration, *Creature:Interactions*, that appears in this issue.

“I find that the creative process of coding can be quite similar to that of artistic creativity,” Bluff says, adding that there are times when he has to be quite methodical and logical, both when creating software tools that can be used artistically, and also when creating images as part a larger artistic work. “There is a lot of planning and free-thinking involved in deciding what software or artistic assets need to be created and how best to craft it,” he says. “But then both realms require extensive prototyping and constant play to fully unlock their potential.”
Originally, the two Andrews met when Bluff was starting his second bachelor’s degree, but it took some time for him to get there. After playing around with computers for most of his life, even creating his own computer games during elementary school, Bluff took his first bachelor’s degree in computer science at the University of Technology Sydney (UTS) and then joined the workforce. However, after a few years, he soon realized that crunching code wasn’t really what intrigued him; instead, it was the creative application of the technology that piqued his interest the most. The workforce provided the raw programming experience, but not the artistic collaboration he longed for. So he went back to school and started a second Bachelor’s degree at UTS, where he delved into sound composition, audio engineering, motion-tracking and sensor-based technologies to create interactive art and musical performances. It was during this period that he met Johnston, who was heading up the Creativity and Cognition Studios (CCS) at UTS, and who had already collaborated with Stalker Theatre’s director, David Clarkson, on interactive stereoscopic productions. Bluff eventually wound up pursuing doctoral studies at CCS to create interactive technology specifically for immersive domains.

“I have always been intrigued by spatialized surround sound and 3D stereoscopic visuals, and following the success of the film Avatar and the impending hype around virtual reality, it seemed like the opportune time to combine Andrew’s research into interactive sound and visuals for live performance with more immersive technologies,” Bluff says.

Bluff has participated in numerous other projects over the years. Frameshift (see Figure 1) was another collaboration with Stalker Theatre, this time for the 2016 Seoul Street Arts Festival in Korea and involving Creative Dandi, a Korean vertical performance company, and Drifterzcrew, a Korean b-boying group. The multilayered environment was set on three aerial rigs functioning together as combined screen projections, stages, dance floors, lighting trusses, climbing gyms and a circular tracking system for aerialists who suspended down like bats from the top as they navigated the cage-like environment. Bluff provided the interactive 360° projection mapping.

Figure 1. Frameshift examines the past, present and future at Seoul Station in 2016. Photo Credit: Seoul Street Arts Festival (used with permission).

Also in Korea, a somewhat older piece, Pixel Mountain (see Figure 2) was a 30-minute outdoor interactive aerial projection performed on various facades including the Seoul Museum of Art. Aerialists danced on the walls while real-time interactive projections responded to their every move. Bluff helped out with the interactive design and operation. Videos of both Frameshift and Pixel Mountain, along with many other interactive projects can be seen on Bluff’s website (www.rollerchimp.com).
In future collaborations with Stalker Theatre, Bluff wants to build on his immersive performance technologies by creating even grander-scale interactive 3D environments, in which larger groups of performers and audiences can participate. He admits that a number of obstacles will arise, but he’s up for the challenge.

“There is still a lot to explore in this area,” he says. “Creating an immersive experience for one person is relatively easy with VR, and an experience for 10-20 people is possible with a CAVE virtual environment, but expanding that to 300-400 people in a live performance situation poses a multitude of problems and opportunities to be explored in the coming months and years.”

Along with Andrew Johnston, Bluff is also interested in how these technologies could benefit the CGI animation industry as a whole. As a result, both have joined the flagship course at the UTS Animal Logic Academy (UTS ALA), a professionally-equipped studio space where students are mentored by industry professionals from Animal Logic, a leading digital production studio. The program offers the first industry-led postgraduate degree of its kind in Australia.

“As researchers in this facility we are not only interested in how virtual and augmented technology can be combined with high-level vfx to unlock new ways of storytelling, but also how these immersive technologies may be used as production tools within the CGI animation industry,” Bluff says.

ABOUT THE AUTHOR

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