

Opening the Dragon's Den: Interactive Welcome to Baton Rouge Entrepreneurship Week

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ABSTRACT

An interactive system was developed to invite participants to the Baton Rouge Entrepreneurship Week opening event. The system consisted of a reactive entryway with an imposing projection on a curved wall, a video tracking and projection system covering the floor of the space, an array of iPad stations throughout the area, and participants using their cellphones to participate in the event. Through these cell phones, web audio was used to create a uniquely personal connection with sound effects and spoken phrases that could not be achieved by the shared public display alone.

This talk will cover the technical aspects of the installation including the novelty of pairing video tracking with distributed performance systems to allow for the identification of individual participants and enable targeting them with interactions both on their mobile device and in the public space beyond.

1. BACKGROUND

Baton Rouge Entrepreneurship Week¹ is an event to help foster entrepreneurial activities within the state of Louisiana. As a series of business events, it kicks off with an opening night gala each year to create excitement about the upcoming talks, panels, workshops, and pitch events. Our installation was created for the entrance to the opening event for the week. Its purpose was to be visually striking, reactive or interactive, and inspiring.

To achieve this, we gathered and drew from 114 quotes that showcased the entrepreneurial spirit such as: "Every once in a while, a new technology, an old problem, and a big idea turn into an innovation." - Dean Kamen; and "I can't understand why people are frightened of new ideas. I'm frightened of the old ones." - John Cage

These quotes set the tone for the opening event and were projected on the Innovation Wall, displayed on tablets in stands around the room, displayed on individuals mobile devices, and integrated into the BREW website. When the

¹<https://www.celebratebrew.com/>



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installation targeted an individual, it was spoken on the device and then across other mobile devices in the space as well. The large number of things moving, speaking and displaying on their own helped to develop a dynamic sense of energy to support the intended networking at the event.²



Figure 1: The Innovation Wall entry display

2. TECHNICAL DETAILS

As outlined above, the system consisted of a reactive entryway with an imposing projection on a curved wall, a video tracking and projection system covering the floor of the space, an array of iPad stations throughout the area, and participants using their cellphones to participate in the event. Through these cell phones, web audio was used to create a uniquely personal connection with sound effects and spoken phrases which could not be achieved through the public display alone. Once participants pulled up the site on their cell phones in the hall the system engaged them via:

- Electro-glitch synth music distributed all across the mobile devices.

²<https://brew2017.emdm.io/>

- Spoken and displayed inspirational entrepreneurial words and phrases.
- Displayed a rotating artistic interpretation of the Baton Rouge Entrepreneurship Week logo.
- Responded in a simple fashion to touch (color change, ripple, sound effect, and sharing your message)
- Rapid fire spotlighting events across participants illuminating their phone, projecting onto the individual, speech, and exciting electrical crackling sounds.

The effect of the spotlighting event struck across multiple phones, each person experiencing: their phone screen color swell and brighten, they were spotlighted from above, their phone either said a phrase to them specifically or spoke a portion of a phrase loudly along with some electrical noise. This happened rapidly across the audience cell phones to say phrases like [Welcome] [to] [Baton Rouge] [Entrepreneurship] [Week]

To achieve this technically, we tied together the giant projection wall, a grove of tablets in stands, a second projection on the floor, and participants with their own mobile devices through a single web application. Each display was created using web animations and web audio, and connected with websockets via nexusHub.[1] To achieve individual identification, we used live video color tracking from above to detect individuals and circle them with the BREW Logo as we activated their mobile device.

An array of 10 iPads in stands were installed around the area, each running a standalone version of the web page. This way, if no one was using the site on their phones, the entry was still being activated with illumination and sound.



Figure 2: Quotes and interactive display on an array of tablets

Web audio was engaged specifically to create a distributed field of sound juxtaposed with individually targeted audio. An underlying humming electrical sound and rhythmic pulse was played through the entire space, however individual mobile devices and the tablet array played higher pitched musical sounds, electric sizzle effects, and spoke the quotes when they were triggered. By using Web Audio, each participants device spoke specifically to them. Combined with the projected spotlight, screen flashing color, and electrifying sound on their device, it instilled a remarkable awareness that the system was speaking directly to you, anonymity was no longer an option.

The ability to traverse from communal, public space to a personal experience was entirely enabled by utilizing web

audio playback on the participant’s device. If it had been only an external projection and audio, however well tied to the individual, it would not have had the power of reaching you through your own personal mobile phone. As this was a fun and lively event, it was simply an exciting feature, however the creepiness of an invasive public/personal system like this did not go unnoticed by the artists and leaves quite an opening for interesting public space engagement.

3. CONCLUSIONS & FUTURE

The reception was well attended with the installation incorporated into the business-party-like atmosphere. Most attendees commented on the giant projections, and read a few of the entrepreneurial aphorisms as they headed into the event. The ones intrepid enough to try it out on their own phones generally grabbed a couple of friends showing them the targeting event before moving into the full reception.

The installation was created as a welcome experience for the 2017 BREW festivities. Unless commissioned for another event, it will not be further developed in its current form. However, components of the installation are in active development for artistic purposes.

The original installation was intended to use fog and lasers to target the screens of users, lighting them up, and triggering sounds and effects on their screen. In the US, this requires FDA approval through a many month approval process and had to be abandoned in favor of the projection approach. The laser targeting has proven to be valid and is being reserved for a future artistic performance.

The novelty of sending a color and subsequently color-tracking the devices is being further refined for a number of other artworks that engage public spaces.

4. ACKNOWLEDGMENTS

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