

Information Overload: A Collaborative Multimedia Performance (sap_0020)

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1. Introduction

Within the past decade dance has grown to span several professional fields encompassing projection, video, audio, and interactivity. Digital technology can add another dimension to a piece and can be used to reinforce a choreographer's vision. *Information Overload* is a modern dance piece about how culture relates to the overwhelming nature of technology, yet still demands more. This theme is backed by real-time dynamic interaction between the dancers and various digital assets including audio, computer-generated (CG) backdrops, and even lighted clothing.



Figure 1. *Information Overload* components

2. Concept

Information Overload begins with a projection of CG raining letters on a video backdrop. A live dancer emerges with an umbrella. The projected letters bounce like raindrops off her umbrella. Three digital dancers appear to morph out of her and the four dancers perform choreographed movement. At the conclusion of the choreography, the raining letters form the word "TECHNOLOGY" and it grows to create a bright metropolis. A ringing of a cell phone reverberates throughout the theater; this sound then grows to be a musical composition of vast varieties of technological sounds. The live dancers emerge from the wings using various technological items such as iPods, PDAs, and cell phones. Next, one of the dancers is recorded in real time with a video camera and projected onto a piece of cyclorama with a video filter applied to her. The end of *Information Overload*

features animation projected onto the dancers holding pieces of fabric.

3. Collaborations

Because of the complexity involved in this project, it required significant interdisciplinary collaboration from several departments at Drexel University. First and foremost, the Performing Arts Department has been instrumental in the production of *Information Overload*. In addition to supplying dancers, it was essential to have input from the Dance Program Director, a professional choreographer.

Secondly, a team of engineering students working on their senior project was needed to design tracking systems which enable the letters to bounce off of the live dancer's umbrella. Experimenting with tracking devices such as video, ultrasound, IEEE 802.11, and wireless sensor networks, they were able to capture the position of the live dancer on stage. This was fed into Adobe Flash via its API to control the animation. The dancer representing technology had a video filter applied to her projected image using John Henry Thompson's DICE program. DICE takes real time video footage and converts it into one of twenty-two different filters. (see Figure 2)

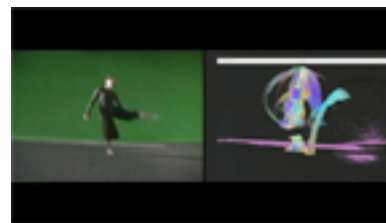


Figure 2. DICE filters

Drexel's Music Industry Program is also making a major contribution with two of its students composing an original score for the piece.

A professional costume and lighting designer have been consulted. Because each scene in the performance is so different, a base costume was designed with other elements such as jackets or fabric. Because of the projection being used, the piece will be mainly lit with sidelights so that the animations are not washed out.

The author created all digital video assets including 3D animations, Flash animations, and green-screened silhouettes.