

# Facilitating Cross Cultural Awareness in High School Students Using Co-Design Methodologies

Quincy Brown<sup>1</sup>, Greg Walsh<sup>1</sup>, Allison Druin<sup>1</sup>, Christopher Amos<sup>2</sup>, Sarah Johnson<sup>2</sup>, Misty Tolle<sup>2</sup>

College of Information Studies<sup>1</sup>, Weill Music Institute at Carnegie Hall<sup>2</sup>

Contact: {qbrown, gwalsh}@umd.edu, allisond@umiacs.umd.edu

The belief that children can be effective and valued design partners versus mere testers or end-users is the foundation of the Cooperative Inquiry design process [2]. Cooperative Inquiry adapts methods from cooperative design, participatory design, and contextual inquiry in a manner that enables children and adults to work as partners, in multi-generational teams, in the design of new technologies [4]. The methods and techniques employed during the design process enable designers, regardless of age, to brainstorm and articulate ideas that might not be revealed or expressed with more traditional usability testing approaches.

The Cooperative Inquiry process and methods have been used to effectively design software including mobile device applications and drawing tools, as well as hardware including robots and interactive environments [1-3, 5, 6]. In this research we extend the use of participatory methods and techniques to the design of curricula and concert performances. In collaboration with the Weill Music Institute at Carnegie Hall we explore the ways in which cooperative inquiry methods, traditionally used for technology design, can impact curricular design and concert performances.

The Weill Music Institute at Carnegie Hall offers a variety of education and community programs throughout the New York City metropolitan area, including school programs for grades K-12. One program, Carnegie Hall Cultural Exchange, offers students and teachers the opportunity to connect their classrooms to the world. The 2009-2010 season of the Cultural Exchange program includes global awareness forays into the Music of India, New York Jazz, and Music of Mexico. The program involves approximately 2000 students from 25 high schools in New York City, New Delhi, and Mexico City.

In multigenerational design teams, we partner with high school students in New York City to elicit their ideas for music visualizations, concert performance enhancements, and social networking site design. We employ lo-tech prototyping techniques such as bags of stuff and big paper to enable the students to brainstorm and articulate their design ideas in visible, tangible and personally expressive ways. We also facilitate the critique and evaluation of



**Figure 1** – Music visualization segment during live performance at Carnegie Hall

existing social networks as well as concert performances. The outcomes of this research include a music visualization lighting segment during a live concert performance, shown in figure 1, and social network site design modifications to focus the social interactions on students' common music interests. This work will be extended in the 2010-2011 Cultural Exchange program to include additional methods to support asynchronous design with students from different countries.

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