

Equipping Collaborative Computing Spaces

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Introduction

Public computing has traditionally been relegated to spaces that are distinct from the areas where collaboration occurs. Computer labs are often placed in separate rooms with computers arranged so that users are facing the wall or an instructor rather than each other. By comparison, a quintessential collaborative computing space can be found in many cafés, where public computing is integrated into the social dynamics of the space. Decades of research in disciplines such as architecture and environmental psychology have produced a wealth of information on how to effectively use design to support designated uses of a space. However, these principles have not been widely applied to the design of public computing centers.

Community Informatics Studio: Equipping Collaborative Spaces

- Four week course applying studio pedagogy to Community Informatics
- Eight students from a range of disciplines including education policy studies, library and information science, biological sciences and architecture
- Studio design goals included:
 - Defining *design principles* for equipping collaborative spaces
 - Applying *principles* to the redesign of the Mary Brown Center, a community center in one of the most economically distressed communities in the central United States

The website for the Community Informatics Studio course is: <http://pcc.metroeastdigital.org/CIStudio/>

Methods Part 1: Define a pioneering set of design principles

- Interviews with experts
- Analysis of available *literature*
- Analysis of community and public computing centers throughout the state
- Discussion of *needs and vision* with staff and students of Mary Brown Center

Student website of design principles can be found at: <http://pcc.metroeastdigital.org/designPrinciples/>

Methods Part 2: Create designs for collaborative computing spaces using principles

- Included technology, adoptability, and design principles
- Worked with *budget limit* of \$12,500, one third available for furniture and aesthetics
- Students divided into groups to create two different designs for rooms
- *Feedback on plans* gleaned from community members, Mary Brown Center staff and students

Site Location

Mary Brown Center

- Erected in early 1960's
- Located within walking distance of three housing projects and a major assisted living center for seniors
- Serves as a safe community space for area youth through the provision of sport, academic and technology-based activities

East St. Louis

- Once known as an All American City; created as an industrial suburb and entertainment hub
- Population declined from 83,000 in the 1950's (~50% Black) to 30,000 in 2008 (98% Black)
- Businesses declined from 1,527 (mainly large industrial) in 1967 to 202 (mainly small) in 2008
- Median household income is \$21,324 USD compared to \$46,590 USD for the state of Illinois

A [re] Design at the Mary Brown Center

Nice, functional lab but not overly inspiring



Before: Computer Lab

Before: Meeting Room



Multi-use space regularly reconfigured for different events

Doubled number of computers but with café feel



Movable desks provide flexibility and inspire user ownership of space

After...

Movable furniture keeps space flexible for multiple uses



Keyboard, microphone, MIDI input, and scanner along with suite of production software for creativity

Art and neutral colors are inviting to a range of users; chromakey green for green screen videography



Windows to common area encourage "outsiders" to enter space and try technology



Art and vibrant colors are especially appealing to creative youth and adults

Design Intentions

The design intentions were to create two spaces that consider community context while addressing many of the issues with traditional computing centers. The redesign provides adequate technology and flexibility while fostering collaboration and cultivating creative expression. The overall design was driven by East St. Louis' inherent sense of community and the mission to facilitate a flexible, collaborative use of space.

For More Information

- Website for parent Metro East Digital project: <http://www.metroeastdigital.org/>
- For further information, to provide feedback, or to explore possibilities for collaboration, email: Martin Wolske at mwolske@illinois.edu