Architectural Studios Online: The "Internet Studio Network"

Alfredo Andia, Ph.D.
Florida International University
andia@post.harvard.edu

Abstract

The "Internet Studio Network" is an initiative designed to create academic relationships among architectural schools to work on semester-studio projects collaborating via the Internet. Past participants included a maximum of 300 architectural students from Miami, Argentina, Chile, Ecuador and Venezuela, who collaborated in semester-long design studios via the Internet and videoconference technology during the Fall, 2001.

CR Categories: K.3.1 (Computers in Education): Computer Uses in Education - Computer-managed instruction; I.3.2 (Computer Graphics): Graphics Systems - Distributed/network graphics; J.6.0 (Computer-Aided Engineering): Computer-aided design (CAD)

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1 Introduction

Traditionally, architectural studios are very isolated social environments in which approximately 15 to 40 students, and 1 to 3 professors, spend between 5 to 10 hours per week in direct contact to search for design solutions. The Internet Studio initiative investigates a different type of digital architectural experience: a design community online that relies heavily on CAD and networked technology.

2 Low-Bandwidth Technology

The initial experiments of the "Internet Studios" initiative explored synchronous and asynchronous collaboration with low-bandwidth technology: chat web publishing, and IP videoconferencing. Due to the different types of bandwidth connection in Latin America the most popular technology used was chat and web publishing (we called "web-chat). Participants in online reviews, via "web-chat" mode, tended to have lower time tolerance during student reviews than in traditional studios. Reviewers usually did not want to spend more than 5 minutes with a student compared to the 15 to 20 minutes in traditional settings.

Surveys expressed that student explanations via chat were more direct, articulate, and memorable to the reviewer than oral explanations. Reviewers also expressed that comments online could be written simultaneously and reviewers were able to quickly notice the similarity of their criticism regarding the student's work without having to wait for everybody to speak. Electronic anonymity made that the comments via chat be more direct and sometimes more violent than in face-to-face studios.

A final important observation refers to the opportunities and contact time professors and reviewers look at the student work; in traditional environments the reviewers can see the student work only during the time of the pin-up. In the online environment reviewers usually become familiar with the student web pages prior to the time when the web-chat reviews occurred.

3 High-Bandwidth Technology

Our experience has been more limited with high-bandwidth technology. The program is part of the AMPATH initiative at FIU, which in 2001 obtained a $25 million grant to connect National University Networks in Latin America and the Caribbean to the Internet2 server at FIU. Only 3 countries have been able to integrate to the Ampath network in the past 2 years and Schools of Architecture in those 3 countries still struggle to those connected national networks. We have experienced 3 technologies: ISDN videoconferences, IP videoconferences over Internet2 and "Access Grid."

The behaviors over high-bandwidth are much closer to traditional studios. There is a similar time tolerance to review student projects. However, due that the interaction usually is restricted to a television monitor, the potential for distraction at both ends is bigger. Students and professors tend to last in these environments up to 1 hour, compared to the 2 to 3 hours in traditional environment. What we saw most valuable was the potential of the technology to generate social relationships if it left to unstructured conversation.

4 Vision

The project is envisioned to position the "Istudio" network as a main hub for architectural education, research, and urban design thinking. The belief is that the rapid process of urbanization in the next two decades will spur similar metropolitan conditions across regions. Networking professionals and academic institutions will be essential for understanding the effects of the new speed of urbanization. The goal is to attract top urban issues, students, academics, and professionals of the region to the network.

5 Conclusion

This experience has generated a set of observations and conclusions, for conducting Internet studios, with low-bandwidth conditions. We are improving the web page interface with web publishing, chat, and IP video broadcasting. Istudio has been migrating to digital library ibiblio.org and hopes to develop web-tools that support interaction via regular Internet. Although our experience is limited in high-bandwidth technology we believe there is a potential for supporting more unstructured level of socialization. However the main issues that remains in this subject is access to network technology and the design of interaction spaces.

References

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