Design Reviews with Remote Critics in an Asynchronous Environment

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Keywords

Design, jury review, critics, collaborative website, asynchronous

INTRODUCTION

A familiar activity to students of design is the design review – where students present their work-to-date to receive feedback and guidance from others. They take place throughout the term, providing students with multiple opportunities to present and develop their ideas (Schön, 1987). At Georgia Tech, we have been exploring how simple technologies can be used to increase opportunities for dialog in the design studio by expanding the range of topics, ways of participating, and set of participants in that dialog. One thread of this research deals with using remote critics in design reviews. Using technology, remote critics are able to view students' work and comment on it without traveling to the studio. In addition to solving some logistical problems of bringing visitors to the studio (e.g. scheduling, expense), we speculated that allowing remote critics to participate in design reviews had the potential to not only expand the set of participants in the dialog, but to change it in fundamental ways.

This paper documents the design and development of one activity called Student-Curated Galleries. In this activity, groups of students in a freshman studio in the College of Architecture used the web to present their work to remote critics who left comments for each of them. It was implemented using a technology called a Collaborative Website or CoWeb. A CoWeb looks and acts like any other website with one important exception: anyone can add new pages to the site or edit the pages which are already there using a standard web browser. (For details of the CoWeb and its uses, see (Collaborative Software Lab, 2000)).

DESIGN AND DEVELOPMENT

The Student-Curated Galleries activity was strongly influenced by our previous experience using remote critics in the original CoOL Studio project, which took place the previous year (Zimring et al., in press). CoOL Studio demonstrated that students and remote critics could interact successfully using the CoWeb. Students were able to represent their projects sufficiently so that they could be understood and commented on by the critics. Equally important, critics were able to participate with virtually no instruction and using only standard browser software. Even with these successes, CoOL Studio provided many lessons for future reviews with remote critics (for specifics, see (Zimring, et al., in press)).

One of the ideas inspired by CoOL Studio was that rather than showing each student's work individually, as is usually the case in design reviews, students would group their work into thematic galleries. In these galleries students would be responsible for "curating" them – for deciding on a theme, selecting images that explore that theme and writing about them. The pedagogical goal was for students to reconceive their designs in terms of the themes and how they related to the other projects in the gallery. Simultaneously, they would have to take into account the strengths and limitations of an online presentation and decide how to convey their ideas clearly to the critics. One instructor agreed to try the activity in her studio and so the research team worked with her over several months to develop the details. The final design for the galleries is shown in Figure 1.

Major design decisions about the online environment and the review activity included:

- The galleries would have a uniform format, designed by the research team and instructor, which students would have to work within. This decision was made to make the activity more manageable for students, and at the same time allow us to create a fairly sophisticated presentation for the galleries.
- The gallery format was designed to strictly limit the number and sizes of the images to keep download times reasonable for critics. Students were also instructed on how to change the compression and resolution of their images to make the file sizes smaller.

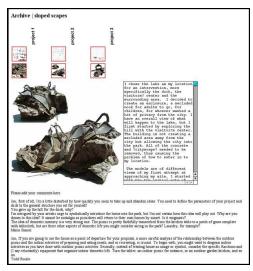


Figure 1. Detail of one gallery with an image from Project 2 in focus (right). Text to the right of the image is from the student; text below is from the critics.

- Several projects, related by a common theme, were displayed simultaneously on a single page. The goal was to allow critics to compare projects side-by-side, so instead of using a long, scrolling page, we used a "fish-eye" (Furnas, 1986) scheme for laying out each gallery. Students' images are shown in thumbnail and the critic can click on one of the thumbnails to bring it into focus. When an image is in focus, a larger version of it is displayed along with accompanying text that the student has written.
- There was a single comment space for each gallery. Within it, critics could comment on a specific project, compare projects, or comment on the gallery and theme as a whole. Using a single comment space meant that critics could easily read what other critics had written. We also hoped that it would encourage students to read the comments for the whole gallery, not just those related to their project.
- To make the creation of images more manageable, students worked on small format paper that could be scanned in a single pass. Arrangements were also made to use a digital camera to photograph their three-dimensional models, eliminating the intermediate steps of developing and scanning regular photos.
- Because the project was only six weeks long, on-line reviews were scheduled to replace, rather than duplicate or supplement in-person reviews. Two on-line reviews were scheduled, alternating weeks with in-person reviews.
- Students would spend about three days preparing their on-line presentations from the drawings and models they had previously created. Critics were given a five-day window in which to visit the galleries and leave their comments. The aim was to allow critics a reasonable amount of time to participate, but to make the window small enough that the comments would still be relevant to the students' projects.
- Critics were provided with background information and an explanation of the exercises the class had done via email before the review. This information was also included in the gallery along with an explanation of the 2CoOL project, brief instructions for using the CoWeb, and a "Sign-in" page for each critic where he or she could introduce themselves and practice using the CoWeb.

CONCLUSION

The design of the Student-Curated Galleries activity addressed many of the problems discovered in our previous use of remote critics, but it was not without its own set of difficulties. Many of these related not to the specific technology but how the activity changed by going from a familiar, face-to-face activity to a novel, asynchronous, computer-mediated one. A discussion of how this activity was different from a typical design review for the participants and how this impacted the outcome of the activity is available in the online version of this paper.

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