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To:

Melissa Koch

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Dear Melissa Koch,

Please find attached the CILT Seed Grant Interim Report for the project entitled “Building Blocks for Virtual Worlds: Design Principles for a Starter Kit for Educational Virtual Worlds.”

Sincerely,
Katy Borner, Margaret Corbit, and Bonnie DeVarco

Bloomington, Dec 15th, 2002

CILT Seed Grant Interim Report

PROJECT TITLE:

Building Blocks for Virtual Worlds: Design Principles for a Starter Kit for Educational Virtual Worlds.

PARTICIPANTS:

Project Leaders

Katy Börner, Indiana University
Margaret Corbit, Cornell University
Bonnie DeVarco, Vlearn 3D SIG of Contact Consortium

Students

Elijah Wright, Indiana University
David Peth, Cornell University
Chad Rooney, Research Intern

WEBSITE

<http://vw.indiana.edu/building-blocks/>

PROJECT SUMMARY

This project aims to develop design principles for a starter kit for educational virtual worlds. It will synthesize lessons learned by the VLearn3D.org educational 3D multi-user virtual worlds community into a set of design principles, which can be shared within our community and with the broader community of educational technology developers via CILT. Specifically, the project will inform the design of a "basic starter kit" for using the Activeworlds technology.

Interested in serving the needs of the users (teachers, students, etc.) and in exploiting the rich experience of the AWEDU and VLearn3D communities as well as related research groups, the first month of the project were devoted to design and conduct question and discussion sessions to compile a list of critical features for the success of 3D multi-user virtual worlds for education.

In particular, we acquired data via an **Online Questionnaire** comprising demographic questions, as well as questions related to (1) User experience with AW Technology, (2) Experience with 3D Worlds for Educational Purposes, (3) Community Building, (4) A Toolkit to be Developed to Ease AW Usage. The Online Questionnaire is available at <http://ella.slis.indiana.edu/~ellwrigh/building-blocks-questionnaire.html>. Preliminary examination of the data collected reveals that information self-reported by users indicates that the users of AW who responded are socially diverse, focused on the use of different parts of the technology for the same ends, and the instructors in the group are largely responsible for the construction of their worlds with little help.

A large number of **In-World Interviews** with educational 3D technology experts were conducted to collect the 'lessons learned' by the user community in terms of world design, utilization of this technology for educational purposes, and evaluation of the results. Content analysis methods will be utilized to analyze these interviews in detail.

In addition, we organized a **Fall Roundtable Series**:

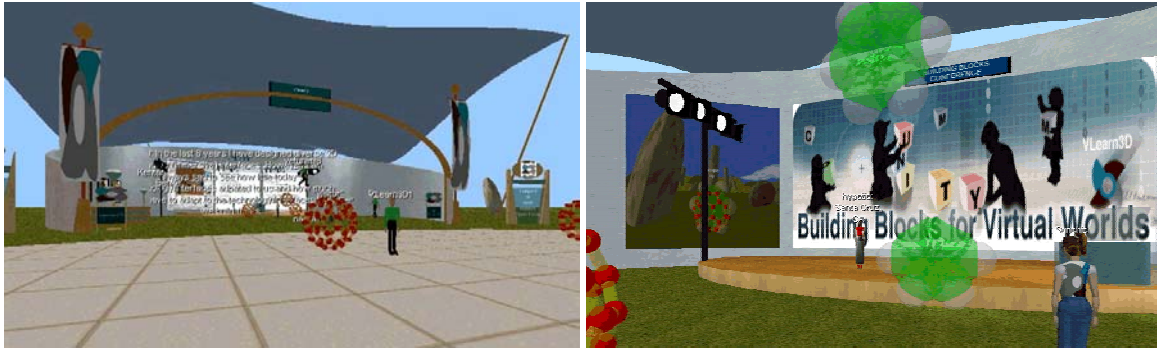
Oct. 30: Roundtable 5 on "New Avatars & New AW 3DWeb Page"

Oct 16th: Roundtable 4 on "Forming Effective Virtual World Communities"

Oct 9th: Roundtable 3 on "Funding & Multi-Institutional Projects - Challenges & Opportunities "

Sept 25th: Roundtable 2 on "World Design and the Educational Experience"
 Sept 18th: Roundtable 1 on "Technology Issues in Virtual Worlds"

The focus of this series was to draw attention to the design principles study by facilitating regular discussions with members of AWedu and other invited guests. Chat logs and still images are available online at <http://vw.indiana.edu/building-blocks/roundtables/>.

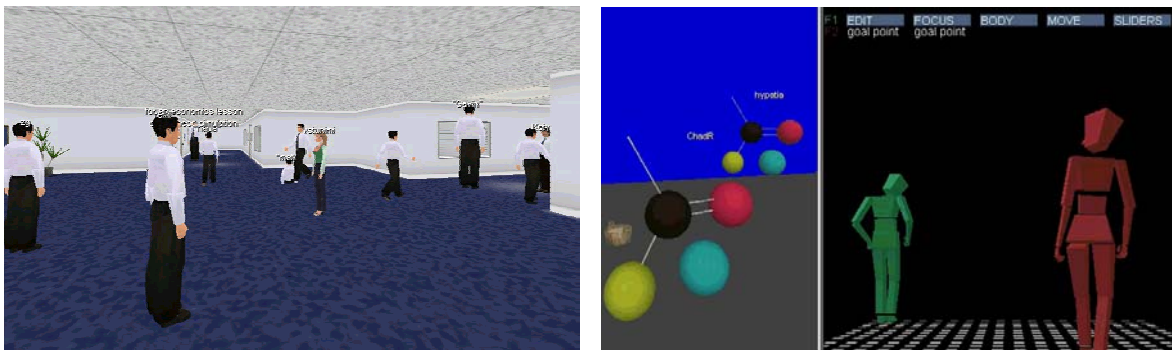


Stills of the Fall Roundtable Series

First results of this project were presented at the annual online VLearn3D Conference on Dec 7th, 2002 and will be posted to www.vlearn3d.org for discussion and input. During the conference, CILT member Yael Kali presented an overview of the CILT Design Principles Database for our AWedu participants and previewed the new online database. This enabled more of our community to have a stake in its growth and a desire to become potential users of and contributors to the database.



VLearn 3D Conference Stills: Panels and Brainstorming Session



VLearn 3D Conference Stills: Parallel Tours of Different Worlds

RESULTS AND IMPLICATIONS

Final recommendations for the starter kit will be contributed to the CILT database and posted at VLearn3D.org. This information will serve as the basis for seeking support to develop a starter kit for AWEDU that will incorporate means for managing and evaluating user activities inworld in addition to a simple and flexible virtual architecture for user spaces.

LESSONS LEARNED: COLLABORATION

We almost exclusively utilized AW technology to communicate. Major project steps were discussed inworld as a group. Having synchronous chat and the possibility to visit venues turned out to be sufficient to discuss and agree upon major decisions. E-mail was used to exchange information such as drafts of questionnaires, inworld interview plans, and results.

AW provided us an easy interface for simultaneous discussion and review of world and Web content during our inworld meetings. The 3D space was used as an organizing tool for structuring interaction, for example during the October 9 Roundtable discussion when introductions proceeded around the table at which our avatars were standing. We had serendipitous opportunities to promote our effort when users noticed our presence inworld and joined us out of curiosity.

In addition, AW technology includes text chat, instant logging and telegraphing for communication and we documented our collaborative sessions onto the building blocks web pages for public and via email for private planning purposes. AW served as an excellent communication tool, thus Yahoo and Egroups were not needed. However, ideal collaboration between this group would have included at least one face to face meeting.

NEXT STEPS

The results of this project will form the basis to determine the scope and extent of a follow-on project that aims to implement the starter kit.

The Roundtable on Oct 9th focused on "Funding & Multi-Institutional Projects - Challenges & Opportunities". Participants shared their approaches to funding development of virtual worlds and the thrusts of their projects. Shared interests emerged in terms of the need for specific kinds of information from the software system. A diverse number of opportunities were discussed. Edward Fox, Virginia Tech and PI for one of the NSDL collection projects, CITIDEL (www.citidel.org) joined this roundtable and gave an overview of NSDL (<http://nsdl.org/>). Rick Noll, CEO of Active Worlds of also joined and expressed his interest to partner in a project that aims to improve Active Worlds technology for educational purposes.. Noll described their plan to stage the world makers' experience by encouraging new users to start with 3D Homepages, Active Worlds new starter kit and he expressed interest in collaborating on appropriate proposals to develop a similar product for educators.

RELATED RESOURCES

Building Blocks Project

<http://vw.indiana.edu/building-blocks/>

VLearn3D.org

<http://www.vlearn3d.org/>

Building Blocks Project - Fall Roundtable Series

<http://vw.indiana.edu/building-blocks/roundtables/>

VLearn3D Conference 2002

<http://www.vlearn3d.org/conference2002/>