

MOOSE Crossing:  
Construction, Community, and Learning  
in a Networked Virtual World for Kids

by

Amy Susan Bruckman

Bachelor of Arts, Physics (1987)  
Harvard University

Master of Science in Visual Studies, Interactive Cinema (1991)  
Massachusetts Institute of Technology

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*Author* -----

Program in Media Arts and Sciences  
March 17th, 1997

*Certified by* -----

Mitchel Resnick  
Associate Professor of Media Arts and Sciences  
Massachusetts Institute of Technology

*Accepted by* -----

Stephen A. Benton  
Chair, Departmental Committee on Graduate Students  
Program in Media Arts and Sciences  
Massachusetts Institute of Technology



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## ABSTRACT

In research about the Internet, too much attention is paid to its ability to provide access to information. This thesis argues that the Internet can be used not just as a conduit for information, but as a context for learning through community-supported collaborative construction. A “constructionist” approach to use of the Internet makes particularly good use of its educational potential. The Internet provides opportunities to move beyond the creation of constructionist tools and activities to the creation of “constructionist cultures.”

These issues are explored through a specific example: MOOSE Crossing, a text-based virtual world (or “MUD”) designed to be a constructionist learning environment for children ages 8 to 13. On MOOSE Crossing, children have constructed a virtual world together, making new places, objects, and creatures. Kids have made baby penguins that respond differently to five kinds of food, fortune tellers who predict the future, and the place at the end of the rainbow—answer a riddle, and you get the pot of gold.

This thesis discusses the design principles underlying a new programming language (MOOSE) and client interface (MacMOOSE) designed to make it easier for children to learn to program on MOOSE Crossing. It presents a detailed analysis, using an ethnographic methodology, of children's activities and learning experiences on MOOSE Crossing, with special focus on seven children who participated in a weekly after-school program from October 1995 through February 1997.

In its analysis of children's activities, this thesis explores the relationship between construction and community. It describes how the MOOSE Crossing children motivated and supported one another's learning experiences: community provided support for learning through design and construction. Conversely, construction activities helped to create a particularly special, intellectually engaging sort of community. Finally, it argues that the design of all virtual communities, not just those with an explicitly educational focus, can be enhanced by a constructionist approach.

Thesis Supervisor: Mitchel Resnick  
Associate Professor of Media Arts and Sciences,  
Massachusetts Institute of Technology

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## Doctoral Dissertation Committee

*Thesis Advisor* -----

Mitchel Resnick  
Associate Professor of Media Arts and Sciences  
Massachusetts Institute of Technology

*Thesis Reader* -----

Pavel Curtis  
Principal Architect  
PlaceWare, Inc.

*Thesis Reader* -----

Henry Jenkins  
Director, Program in Film and Media Studies  
Massachusetts Institute of Technology

*In memory of  
my grandmothers:*

Florence Fox Bruckman  
Norma Brodney Cohen

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