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

by

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SUBMITTED TO THE PROGRAM IN MEDIA ARTS AND SCIENCES,
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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.

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In memory of
my grandmothers:

Florence Fox Bruckman
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