

# **Evaluating the Virtual Shopping Experience Comparison of Multi-Wall Displays for Navigation in a Virtual Store** Livien Yin, Terrence Scott-Cooper, Troy Lambert Mentors: Dr. Judy Vance, Carl Kirpes, Ryan Pavlik, Patrick Carlson



## Motivation

Many major retail companies use one-wall displays of virtual stores to test new marketing strategies with consumers. These companies are concerned with improving virtual navigation while avoiding unnecessary costs.

We will investigate whether a multiple wall display in the C6 (a fully immersive synthetic environment) will enhance navigation by minimizing the time it takes a user to find products in the virtual store. We hypothesize that multiple walls will significantly reduce the time required to find products, and will be worth investing in for companies.

**IOWA STATE UNIVERSITY** OF SCIENCE AND TECHNOLOGY

#### **Research Question**

Do multiple walls minimize the amount of time it takes a user to find products in a virtual store?



**Methods** 

Group 2: Five-Wall Display

Task: Find 4 Products

> Task Time Measured

### **Shopping Cart Device**

The user input device was a modified shopping cart with a rotating base and a virtual basket. The goal of introducing the shopping cart was

to increase the participant's feeling of immersiveness. We designed it to help the user make a connection between the standard shopping experience and the virtual one.



### **Expected Results**

We expect to confirm our hypothesis that the fivewall environment will yield significantly shorter navigation times on average.

**Funded by NSF IIS-0851976** 

NSF