Virtual Orienteering

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Contents

Executive Summary:

The Discovery Children's Museum in Bangor, Maine is renovating the 3rd floor and installing new exhibits that fall within their new theme, Kids in Motion. As a part of New Media 306, students from UMaine are working to design innovative, interactive, exhibitions to replace the old ones.

Our Group includes Andrew Fitzpatrick-Game Designer, Jay Preston-Graphics & Budget and Caitlin Trafton-Project Coordinator. We decided it is important for children to know where they are, where they are going, and how to find safety if ever lost. Our main focus is to teach children how to orient themselves in regards to those three points: where they are, where they are going, and how to find safety if ever lost.

Many young Americans are playing video games as a source of entertainment, so we decided the best delivery medium would be Virtual Reality. We originally thought building a tangible maze would intrigue kids the most, then realized, a Virtual Maze would save on Space, and increase the capacity for change.

The idea is to take a 100 square foot section of the 3rd floor and dedicate it to Virtual Orienteering. Each wall would have a screen with projection of the maze, to surround the visitor with the Virtual World. The Omni Treadmill will be placed in the center of the space and as soon as the visitor steps onto it, it will assume a Quest. Within the Game there will be clues that indicate to the Player where they should go from there. At first, the Environment seems bland, no zombies, no weapon, just a path, some trees and the blades of grass blowing in the wind. It is up to the Player to discover a clue, and follow the instruction carefully. Clues will come in three forms: verbal instructions, photo and text. The first clue is on a tree at the start of the game, an example would be: "Follow the path to the end, then take a Right." When

the Player goes to the end of the path and takes a Right, another clue is provided, if not, the Player might not find the clue, and become lost. At the start of the game, a timer is enabled, 24 minutes will pass as the Sun rises and Sets on the World, it is the Player's objective to complete the Maze, before the sunsets. Each game will include 24 clues.

This is our group Project: These are the Ways we would execute this. These are the concepts propelling the argument. The argument is the answer to the question, which is, why are there no exhibits focusing specifically on environment? Where are the displays that show children their relative size, to that of Earth?

Statement of Problem

Children these days are not educated enough on navigation. In result, these children do not feel as comfortable as they should in their environment. If ever they are lost, it is important for our kids to know how navigate.

Objective

The objective of our exhibit is to educate children on navigation so they may feel more comfortable in their environment. Kids tend to get lost pretty often and we feel they need to know some sort of navigation. Through our exhibit we wish to incorporate terms such as left, right, east, south in hope to familiarize our audience with these terms. Our exhbit should leave them with some knowledge on how to get around. Using technology and virtual reality, we want to draw our audience in. Put them in a world where it is okay to get lost, and where the consequences are minimal. The whole idea of virtual reality

is on the rise, we would like to present this idea early on to familiarize these kids with it.
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Objectives: Engage children as they learn more about their environment, and encourage them to walk, run, and jump. The exhibit space would need a 10'x10' room, where four projectors would be installed. There will be three projectors illuminating screens directly to the Left, Front and Right of the visitor and a fourth projector that depicts the sky. The projection system would link to a computer that runs the game in Unity, and the visitor controls the experience by walking in place. The game would be one player at a time, and the main control would be the Omni Treadmill.

The Maze would be designed so that children as young as four can walk through the virtual world without being harmed, and children up to 12 can complete orienteering quests and discover buried treasure within the terrain. Given a clue from the start, the gamer must remember landmarks, and follow correct paths to arrive at the next clue.

Our group decided that it was important for children to understand about Navigation. As technology increase tenfold, children are increasing straying away from how it all became possible.

Even though our society is leaning toward more technology, it is equally important to understand the forces of nature. Everything on Earth, was taken from the Earth, and if we continue to ignore Nature, we could we wiped out by it. Knowing how to properly navigate comes in three parts; attention to direction, memory, and importance of landmark recollection. At age four, children are gaining their independence, and are picking up skills in following direction and being on their own in tasks. Children ages four to seven are

learning their colors, days of the week and months, but generally don't know how to tell time. Children from five to nine are gaining attention, direction following and memory skills. Children ages nine to twelve, are being introduced to more complicated Math and Science studies.

From the beginning we knew we want to get kids away from sitting in front of the computer screen, get them moving around, and educate them on their environment. All throughout history, mankind has used maps. Maps have been used all throughout history, and recently have been subjected to upgrade. Children of the new millennium might not be growing a bean in science class to explore photosynthesis, or dehydrate an apple in salt, to show the embalming process; these hands on experiences, are what drive the children to do more, doing it for themselves.

Technology has the limit of confining children in their homes, and though apparently harmless, the virtual labyrinths kids get into, can be very harmful. Meeting people online is becoming an increasing trend, and being able to take a Nature Walk is a thing of the past.