

Games as a Facilitator for Social Networking and Team Building

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Overview: Table Tilt is a multiplayer game for the iPhone and iPod Touch platforms. It supports two, four, or six networked devices, and together all of the screens make up one large game screen (Figure 1). Balls and holes are randomly placed on the screens. The basic game mechanic is tilting the device, which causes the ball to roll in that direction. When the ball reaches the edge of the screen, it will roll onto the screen of the adjacent device. The goal is to get all of the balls into the correct holes on all ten levels within the two minute time limit.



Figure 1 - Six Player Game Board

Objective: The team building games will increase players' motivation to participate in conference activities and communicate with other attendees.

Preliminary Research: We first developed a simple application for the iPhone in order to become accustomed to Objective C and OpenGL. The app included tap and multiple touch point registration as well, so that we could evaluate our different input options.



Figure 2 - Preliminary OpenGL iPhone Application

Networking Design Decisions: We selected Bonjour as our service discovery protocol due to its native support on the iPhone, and also because it supports WiFi. Since the iPod Touch does not have Bluetooth support, it was important to use WiFi, so that we would not alienate that platform.

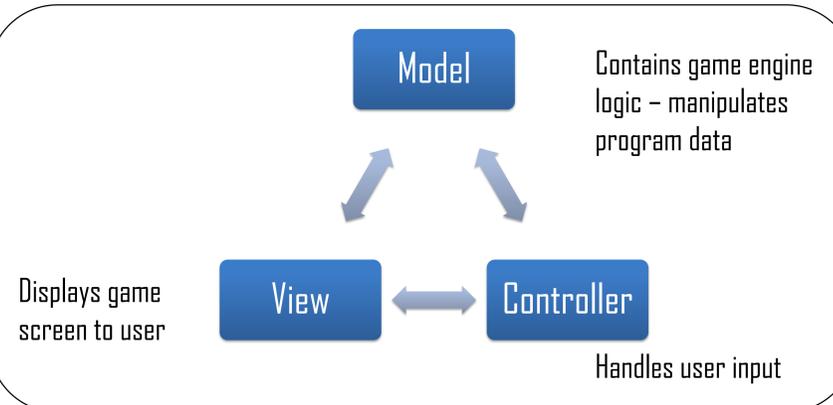


Figure 3 - System Architecture

Tradeoffs: The Bonjour service discovery protocol is a substantial bottleneck in the system. To mitigate the problem, each device does as much individual calculation as possible, and the server only sends out data when absolutely necessary.

Study: The conference attendees will take a short survey at the beginning of the conference to determine relevant information such as gender, age bracket, gaming interests, whether they are outgoing or introverted, and how many contacts they already have outside of their own school.

Every night of the conference before dinner, each table will have an opportunity to form a team of four or six people to play a game of Table Tilt. The points accumulated during the game will be put toward each table member's individual Snag'em score. There will also be mixed teams, where half of the team comes from one table, and the other half comes from a different table.

At the end of the conference, the members will take a second survey to report their impression of the game; whether or not it was fun, helpful for networking, and other suggestions on how to organize teams and playing times.