Table Tilt - a Facilitator for Social Networking and Team Building

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About Me

Senior Computer Science major at Grove City College, PA

Distributed Research Experiences for Undergraduates

Game2Learn team

Masters/PhD?

Motivation

- Building networks between students and across schools increases retention in Computer Science (Thomas, 2009).

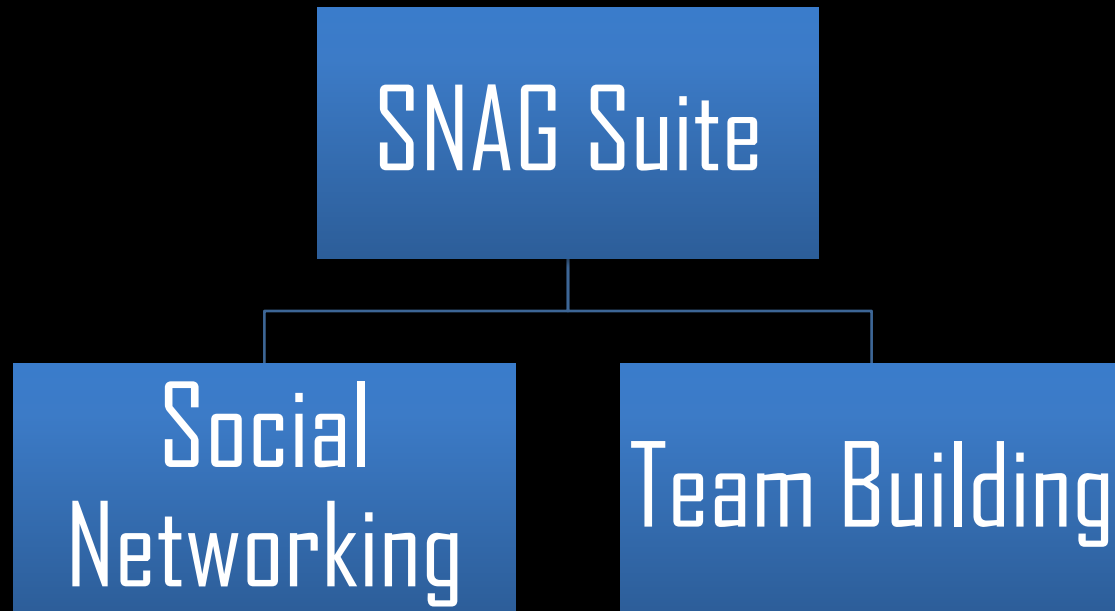| Games as a facilitator for:	
Team building and interaction	Cross-school icebreakers and networking

Motivation

- iPhone and iPod Touch platform
  - Popular, innovative
- Goal: promote interaction and team building in an informal, low-pressure environment
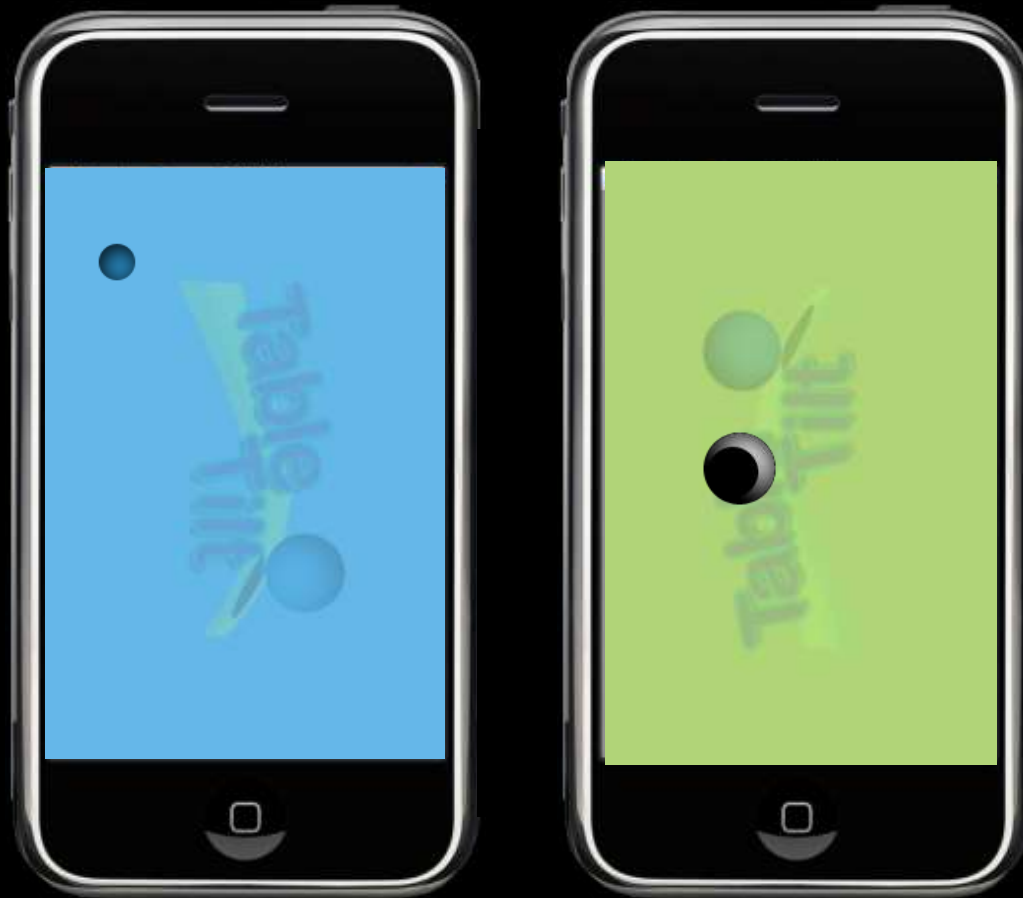
SNAG

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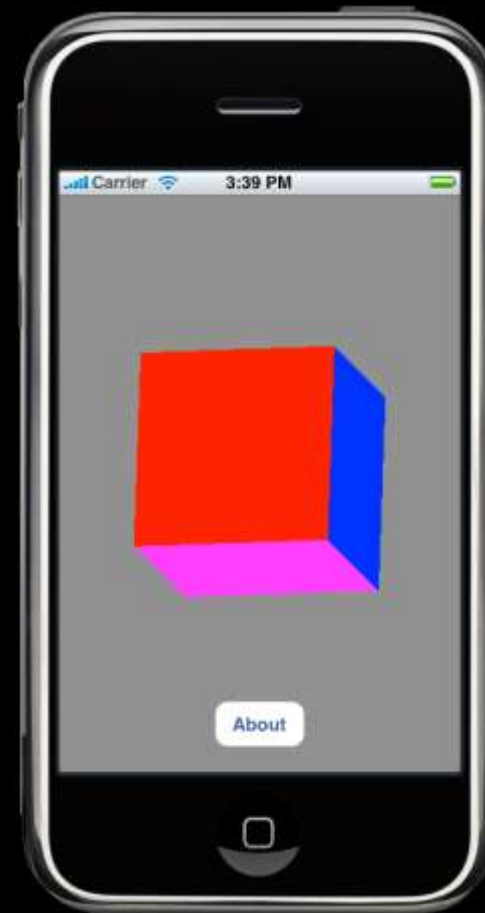
Project Overview

- Table Tilt

Preliminary Research

- IRB Certification
- iPhone SDK Project
  - Objective C
  - OpenGL
  - Tap and touch registration
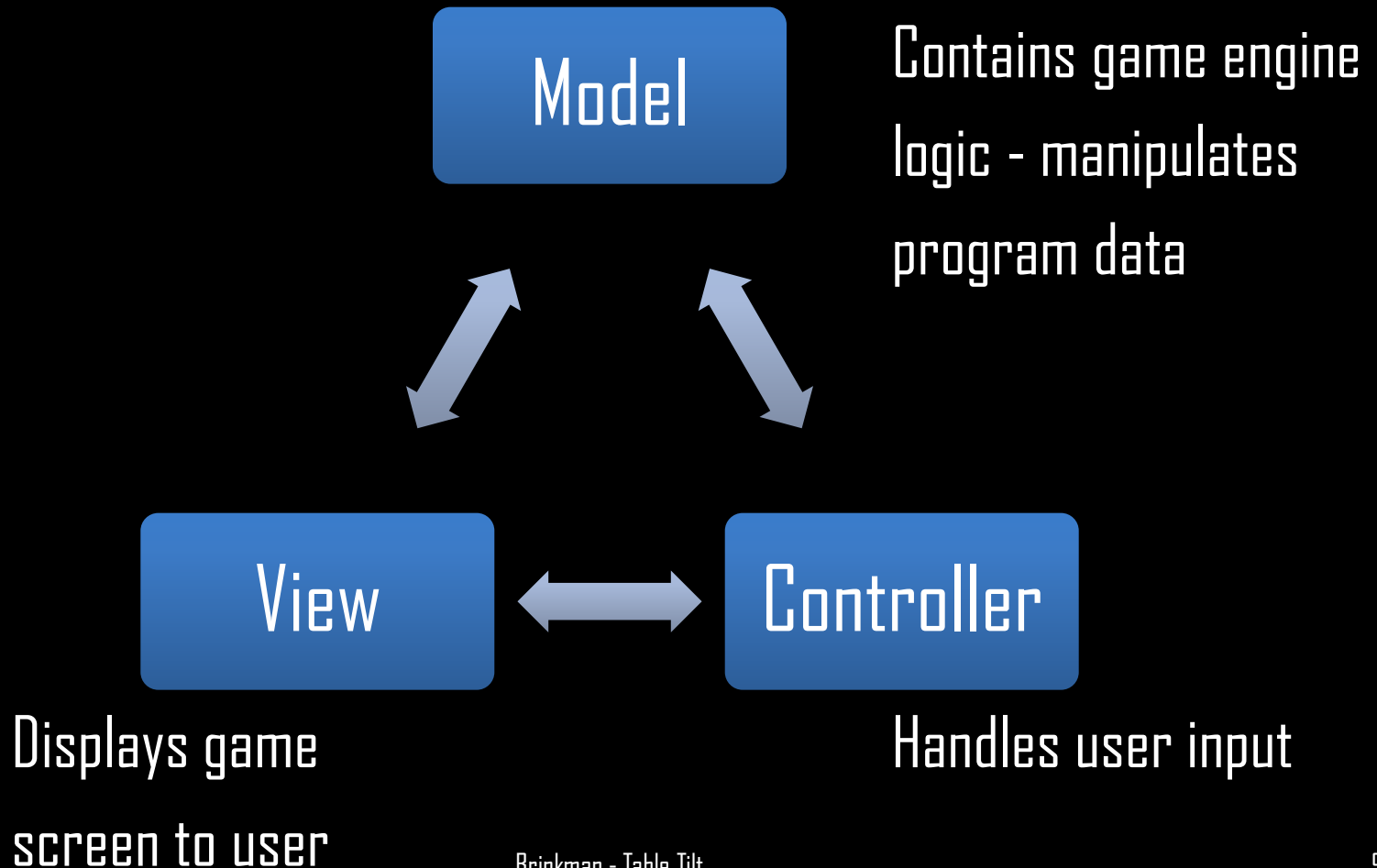
Early Design Decisions

Core Graphics framework

- Documentation
- Performance
- Art assets
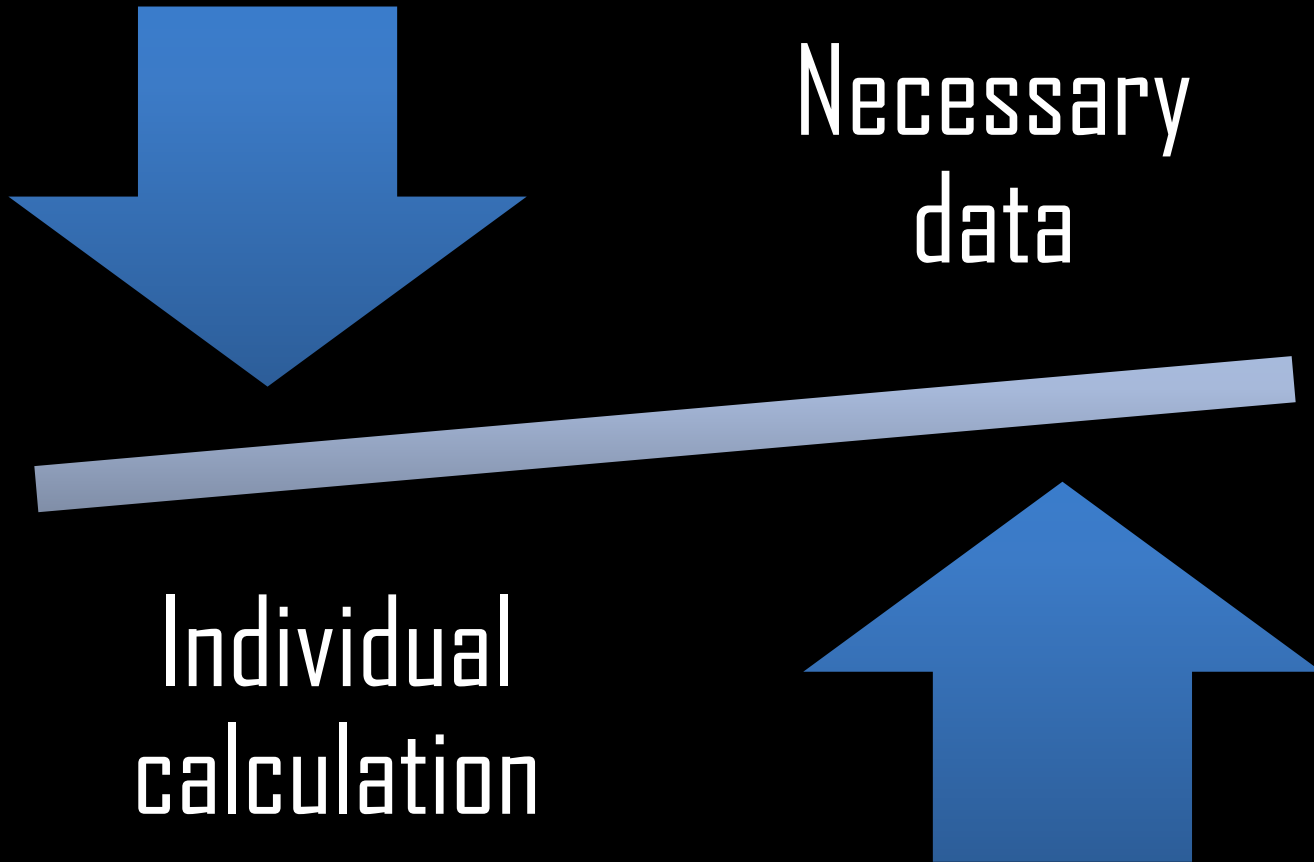
Bonjour

- Native support
- WiFi

Architecture

Model

Contains game engine logic - manipulates program data

View

Controller

Displays game screen to user

Handles user input

Tradeoffs

Necessary data

Individual calculation

Completed System

- Support for 2, 4, or 6 devices
- Orienting puzzle
- Two minute game sessions
- Ten randomized levels

Hypothesis

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

Study

- STARS Alliance Conference

- Pre-game survey

- Daily game sessions
  - Points go toward Snag'em

- Post-game survey

How would you rate yourself on a scale of 1 to 5, where 1 is very reserved and 5 is very outgoing?
1 ○ ○ ○ ○ ○ 5

On a scale of 1 to 5 (1 is low and 5 is high), how often do you play video games?
1 ○ ○ ○ ○ ○ 5

- On a scale of 1 to 5 (1 is low and 5 is high), how often do you play casual games (ex. cell phone games)?
1 ○ ○ ○ ○ ○ 5

- Do you find it easy to meet new people?
  ○ Yes
  ○ Sort of
  ○ Not really
  ○ No

How much did you interact with the other players during the game? Rate your interaction from 1 - 5, where 1 is no interaction and 5 is a lot of interaction.
1 ○ ○ ○ ○ ○ 5

After playing the game, did you interact again with the new people that you met during the game?
Yes ○   No ○

If you answered yes to the previous question, then did you feel that the game gave you some common ground to interact with those people?
Yes ○   No ○

Is there anything that you would change about the game to make it easier to network with the other players?

Conclusion

- Close interaction
- Team building
- Informal
- Fast-paced

Discussion

- Future work:
  - Add sound
  - Expand the system to allow direct competition between groups
- Gained experience in:
  - Objective C, OpenGL, iPhone SDK, networking
  - IRB protocol, study design, research methods, presentation
  - Rapid prototyping

Thank You!

Rachel Brinkman & Dr. Tiffany Barnes

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Grove City College

UNC Charlotte

Works Cited

Bell-Watkins, K., Barnes, T., and Thomas, N. 2009. Developing computing identity as a model for prioritizing dynamic K-12 computing curricular standards. J. Comput. Small Coll. 24, 3 (Jan. 2009), 125-131.