

# Yes We Can!

## Combating Obesity Trends in Teenagers Through Persuasive Mobile Technology

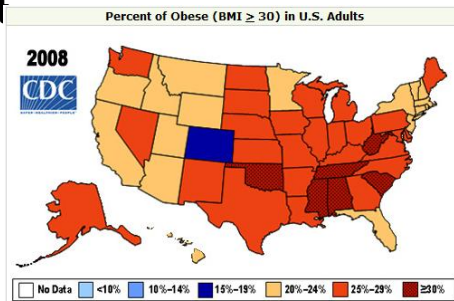
Adrienne Woodworth, St. Lawrence University  
Melisa Kudeki, University of Illinois, Urbana-Champaign  
The UCSC SURF-IT NSF REU Site

Research Advisor: Sri Kurniawan  
Principle Advisor: Sonia Arteaga



### Background

- Percentage of overweight teens increased from 11% to 17% from 1988 to 2004
- CDC recommends 60 minutes of physical activity, 5 days a week



### Theories & Goals

- Big 5 Personality Theory—tailor the system to the user—more motivating and enjoyable
- Theory of Meaning Behavior—agents provide external motivation—hopefully user will internalize the motivators
- Theory of Planned Behavior—agents increase behavioral intention by encouraging the user—they believe they can accomplish the task

### Methods

- iPhone and iPod Touch application motivates teens to play games
- Ten-question personality test
- System chooses agent and game suggestions based on test results
- Agents say motivational phrases



### Conclusion & Future Work

- In user testing, teens reacted positively to the agents, saying “She seemed really nice” and “I would keep playing if she would tell me nice things”
- Future improvements to the system include artificially intelligent agents and motivational phrases tailored to better suit different personalities

### References

[http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght\\_child\\_03.htm](http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght_child_03.htm)  
<http://www.cdc.gov/obesity/data/trends.html>