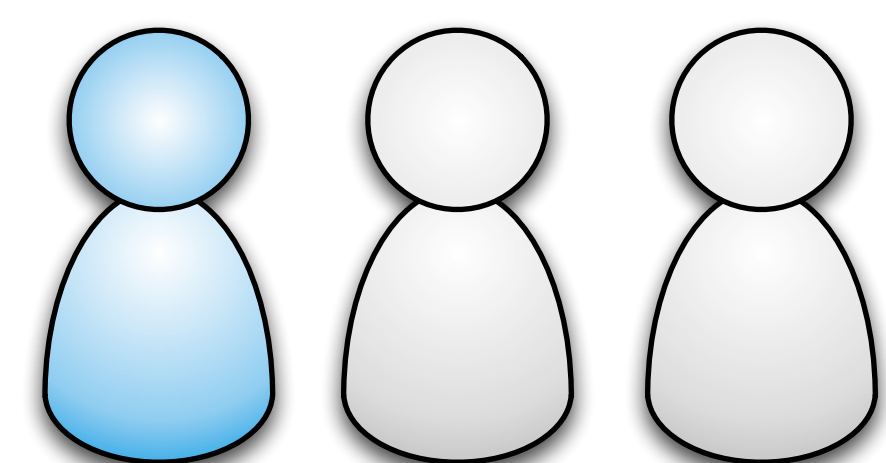


Get Up and Play!

Motivating Physical Activity in Teens through Mobile Technology

Motivation

Obesity has become highly prevalent over the past few decades



Today, about $\frac{1}{3}$ of American adults are considered obese

Problems this causes:

- Increased health risks
- Strain on healthcare
- Personal and nationwide financial issues

Preventive strategies could help reverse this trend

Psych Theory

Technology Acceptance

People must think new technology is:

- Easy to use
- Useful to them

Meaning Behavior

To adopt a behavior people must feel:

- They have control over the behavior
- The behavior is achievable by them
- The behavior is socially "normal"

Planned Behavior

Once a behavior is internalized, it no longer needs to be motivated externally

Using hardware in mobile phones, games can interface with the real world



Our application suggesting a game

Develop the System

Our system generates a list of games that

- Require physical activity
- Are tailored to personality types

Within our application, users

- Control which games to play
- Keep track of what they've played
- View daily and weekly progress

Conduct User Testing

1

Interview teens for views on physical activity and technology

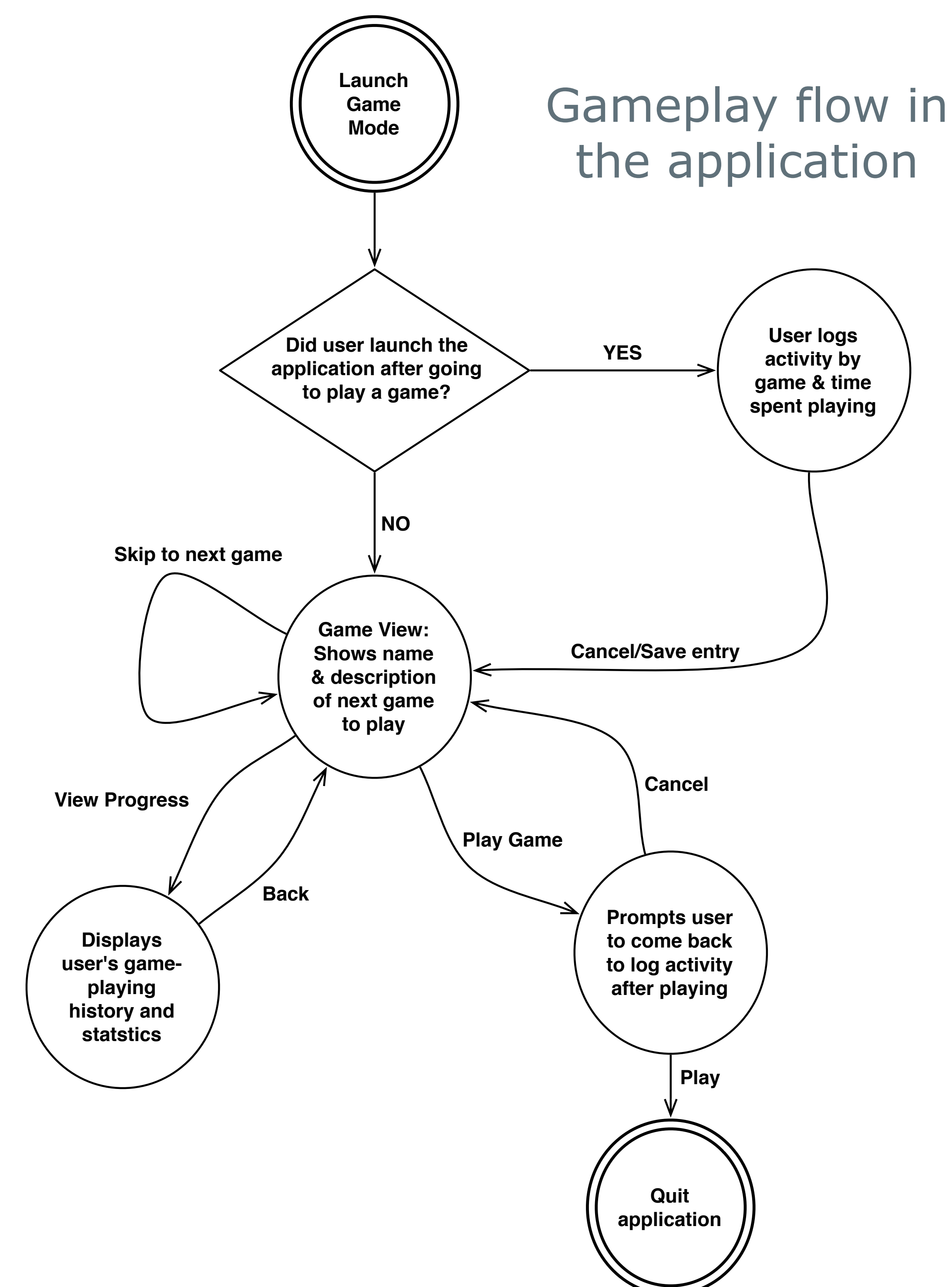
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Teens try out the system a few times

3

Final interview about attitudes and experience with the system

GPS WiFi Bluetooth
Camera Accelerometer



Results

We found that the teens in our focus group

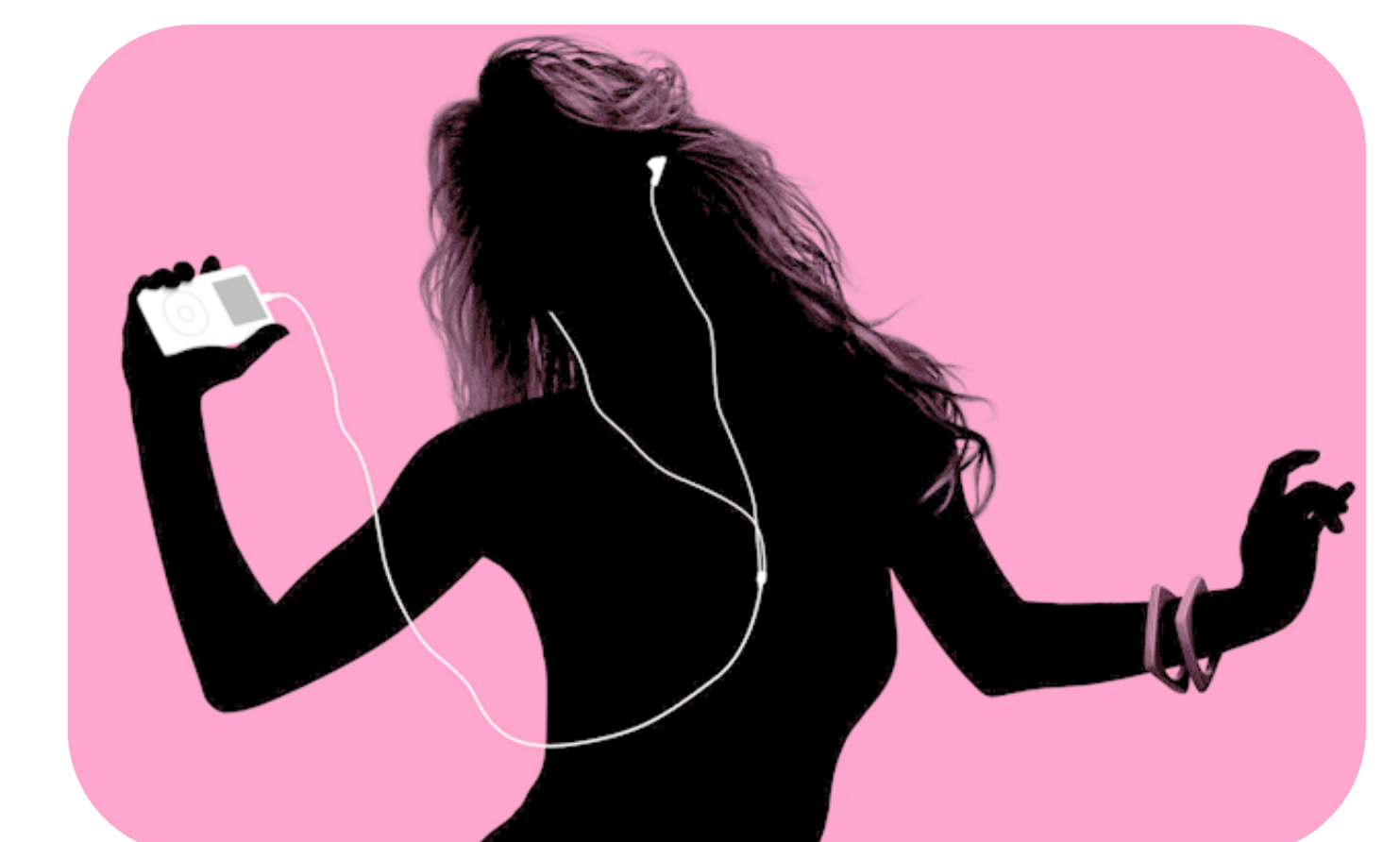
- Initially were unsure a mobile device could help them be active, but
- Found learning to use the system simple and easy
- Identified types of games they wanted to play more
- Some participants wanted to "play it every day"

Their feedback will be used in designing a future system

Future Work

This project was a pilot for a long-term study in which we

- Develop our own games
- Simplify the interface
- Record daily exercise automatically with time and accelerometer data



Goal: Create a system that will encourage positive attitudes towards physical activity and internalization of healthy lifestyles