CS/INFO 4154: Analytics-driven Game Design

Class 26: Ubiquitous Gaming
Mon | Wed | Fri

10/30
Friends Release 2

10/25
Ubiquitous Gaming

10/27
Friends Release 1

11/1
Friends Release 3

11/3

Friends Release Report due 10:10am
Friends Release

• Requirements
  • *Smooth progression* of nine* tasks
  • Tutorials
  • Music
  • Sound
  • Logging

* Negotiable; “task” definition depends on your game
Friends Release Report

• Instructions on website

• Due BEFORE CLASS by 10:10am on Friday 11/3

• Academic Integrity:
  • It is expected that all players are real players
    • Exception: accidentally testing your game with logging active
      • OK if it happens a couple of times
  • If there is a recording problem, please let us know
Today

- How can analytics help us understand a major shift in video games?
Outline

- Research on *Pokémon GO*
- What makes a location-based game work?
- The impact of “ubiquitous gaming”
- Open office hours
Outline

- Research on *Pokémon GO*
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Pokémon GO is the biggest US mobile game ever

Peak daily active users (millions)

Source: TechCrunch
Pokémon GO
Questions:

- How did Pokémon GO affect the *movement* of people?
- How did it affect *payment*?
- What is the impact of *alternate* reality?
- What is the impact of *augmented* reality?
Survey of Pokémon GO players #1

- 1,000 Finnish players
- Recruited through Facebook groups
- Qualitative, open-ended responses analyzed through coding

Paavilainen et al. CHI 2017
Survey of Pokémon GO players #2

- 375 players
- USA, Germany, Portugal, Finland, Belgium
- Qualitative, open-ended responses analyzed through coding
Questions:

- How did Pokémon GO affect the movement of people?
- How did it affect payment?
- What is the impact of alternate reality?
- What is the impact of augmented reality?
% who went to a new place

60%

65 million monthly users in April 2017 (Source: Niantic):
- 60% of this would be **39 million people**
% who went to a new city

9%

65 million monthly users in April 2017 (Source: Niantic):
• 9% of this would be 6 million people
Questions:

- How did Pokémon GO affect the movement of people?
- How did it affect payment?
- What is the impact of alternate reality?
- What is the impact of augmented reality?
Paying Users: Kongregate

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Paying Users: *Pokémon GO*

Range: 1 to 300 EUR

ARPU: 35.67 EUR

Pay

Don't pay
% who made purchase in new place

46%
Questions:

• How did Pokémon GO affect the movement of people?
• How did it affect payment?
• What is the impact of alternate reality?
• What is the impact of augmented reality?
Questions:

- How did Pokémon GO affect the movement of people?
- How did it affect payment?
- What is the impact of alternate reality?
- What is the impact of augmented reality?
Use of Augmented Reality
Use of Augmented Reality

Paavilainen et al. CHI 2017
Outline

• Research on *Pokémon GO*
• What makes a location-based game work?
• The impact of “ubiquitous gaming”
• Open office hours
5-minute pair discussion

- What makes a location-based game work well?
- What are the challenges?
- Why did Pokémon GO specifically do so well?
The Good

“What things make *Pokémon GO* fun to play?”

- globally well-known brand
- moving in the real world
- sociability
The Good

“What things make Pokémon GO fun to play?”

- moving in the real world (413 users)
- sociability (348 users)
- globally well-known brand (131 users)
The Bad

“What things about playing *Pokémon GO* do you dislike?”

- bad behavior from other players
- technical problems
- unequal gaming opportunities
- unpolished game design

Paavilainen et al. CHI 2017
The Bad

“What things about playing *Pokémon GO* do you dislike?”

- technical problems (285 users)
- unpolished game design (194 users)
- unequal gaming opportunities (148 users)
- bad behavior from other players (109 users)
Case study: 3D reconstruction

Agarwal, Snavely, et al. ICCV 2009
Case study: 3D reconstruction

Agarwal, Snavely, et al. ICCV 2009
Case study: 3D reconstruction game

- Can we incentivize people to take pictures?
- Can we get pictures from less common angles?
- Can we make this fun?

picture → magical computer machines → 3D model with new geometry

Tuite et al. CHI 2011
Photocity

Tuite et al. CHI 2011
Outline

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Dangers of increased movement

Remember to be alert at all times. Stay aware of your surroundings.
% who hit or almost hit something

33%

Most common culprits:
- signs
- poles
- other people

Colley et al. CHI 2017
% who put personal safety at risk

11%
What do we think?
Outline

- Research on Pokémon GO
- What makes a location-based game work?
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Reminders for Friday

- Check logging
- Check logging again