Group Interactions in Location-Based Gaming: A Case Study of Raiding in Pokémon GO

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Collaboration in Location-Based Games

Ingress

Pokémon GO

Raiding in Online Multiplayer Games

Raiding in Pokémon GO
Research Questions

(1) How do groups coordinate and interact online and in real life for raiding in Pokémon GO?

(2) What factors contribute to participation, coordination, and social interactions in raids in Pokémon GO?
Methods

• Participant observations
  • Over 1500 raid battles
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• Online Surveys 510 complete surveys
  • Multiple states in the US and other countries
  • 54% Female, 43% Male, 2% other
  • 47% Suburban, 43% Urban, 9% Rural
Methods

• Participant observations
  • Over 1500 raid battles; level 40

• Online Surveys 510 complete surveys
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• Interviews with 25 participants
  • 44% Female, 56% Male
Qualitative Data Analysis

Game rules for collaboration
Lack of remote affordances
Exclusivity & uncertainty
Infrastructure demands

Coordinating actions of group members to begin a raid
Shared understanding of norms and identity in raid groups
Coordinating based on different goals of the raid group

Coordination mechanisms and tools
Privacy, safety, and trust
Accessibility and social capital
Social interactions
Audience perceptions

Sub themes from inductive analysis
Global Dynamics: system level variables
Theory of Small Groups As Complex Systems

Global Dynamics: system level variables

Local Dynamics: activities of members who constitute a group

Theory of Small Groups As Complex Systems

Global Dynamics: system level variables

Local Dynamics: activities of members who constitute a group

Contextual Dynamics: determined by group’s embedding context

Mapping Analysis to Arrow’s Theoretical Lens

Global dynamics
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- Lack of remote affordances
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Local dynamics
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Contextual dynamics
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Three causal dynamics in small groups

Sub themes from inductive analysis
Global Dynamics  Local Dynamics  Contextual Dynamics

The Hydro

Egg hatch – countdown timer
Gym – aka raid location
Avatar – players’ location in the game
Findings: Local Dynamics

Coordinating goals during raids
Findings: Contextual Dynamics

Differences in coordination

Need for social capital

Cultural differences
Differences in Coordination

Raid at start time
Differences in Coordination

1. Identify location [for raid]
2. Post to all Discord & Facebook groups that are in the same geographic region
3. Identify a start time
4. Have players confirm raid participation availability and number of accounts they can contribute
5. Do a roll call when at raid, to ensure all committed players are there

(S133)
Differences in Coordination

(1) Identify location [for raid]
(2) Post to all Discord & Facebook groups that are in the same geographic region
(3) Identify a start time
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(5) Do a roll call when at raid, to ensure all committed players are there.

(S133)
Difference in Coordination

Emergence of leaders online and IRL

Set & respect a start time
Inform on Discord if not visible
Inform when unable to make it
Cultural Differences

Japan

USA
Cultural Differences

Japan

USA
Challenges with Social Capital

Lack of proper ways to play the game out in rural areas has hurt me and my friends’ ability to level up at a decent rate as well as catch anything that could help us in raids. (R20)
Designing to Bridge Global & Contextual Dynamics

There are no community managers. There's no one to say, ‘hey you in Las Vegas, can you go look at this Gym in this one location and tell me if it's an appropriate spot for raiding?’ They [Niantic] need that. (R3)
Designing to Bridge Global & Contextual Dynamics

Community managers can add metadata tags on gyms
Designing to Bridge Global & Contextual Dynamics
Designing to Scaffold Social Bridging

Reciprocal interactions

Balancing privacy and safety
Conclusion

Lens to understand complex group interactions online and IRL
Thanks to all participants of this study!

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