Impact of Location-based Augmented Reality Games on People's Information Behavior

A Case Study of Pokémon GO

Jin Ha Lee, Travis Windleharth,
Jason Yip, & Marc Schmalz

mschmalz@uw.edu

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Information School
UNIVERSITY of WASHINGTON

What is

?

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Game Map is Real World

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Catch and Train Pokémon

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Control Gyms for a Faction

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FOX NEWS

'Pokemon Go' takes world by storm, but sparks controversy

Los Angeles Times

'Pokemon Go' players find corpse in San Diego park

REUTERS

Wildly Popular Pokemon Go Leads to Robberies, Injuries, and a Body

BBC

US Holocaust museum asks Pokemon Go players to stop

AP

French mayor bans 'anarchical' Pokemon settlement in village

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Research Question

How does ARG gameplay affect people's information behavior in both physical and virtual spaces?

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METHODS


Public Observation
Campus


Public Observation
Parks

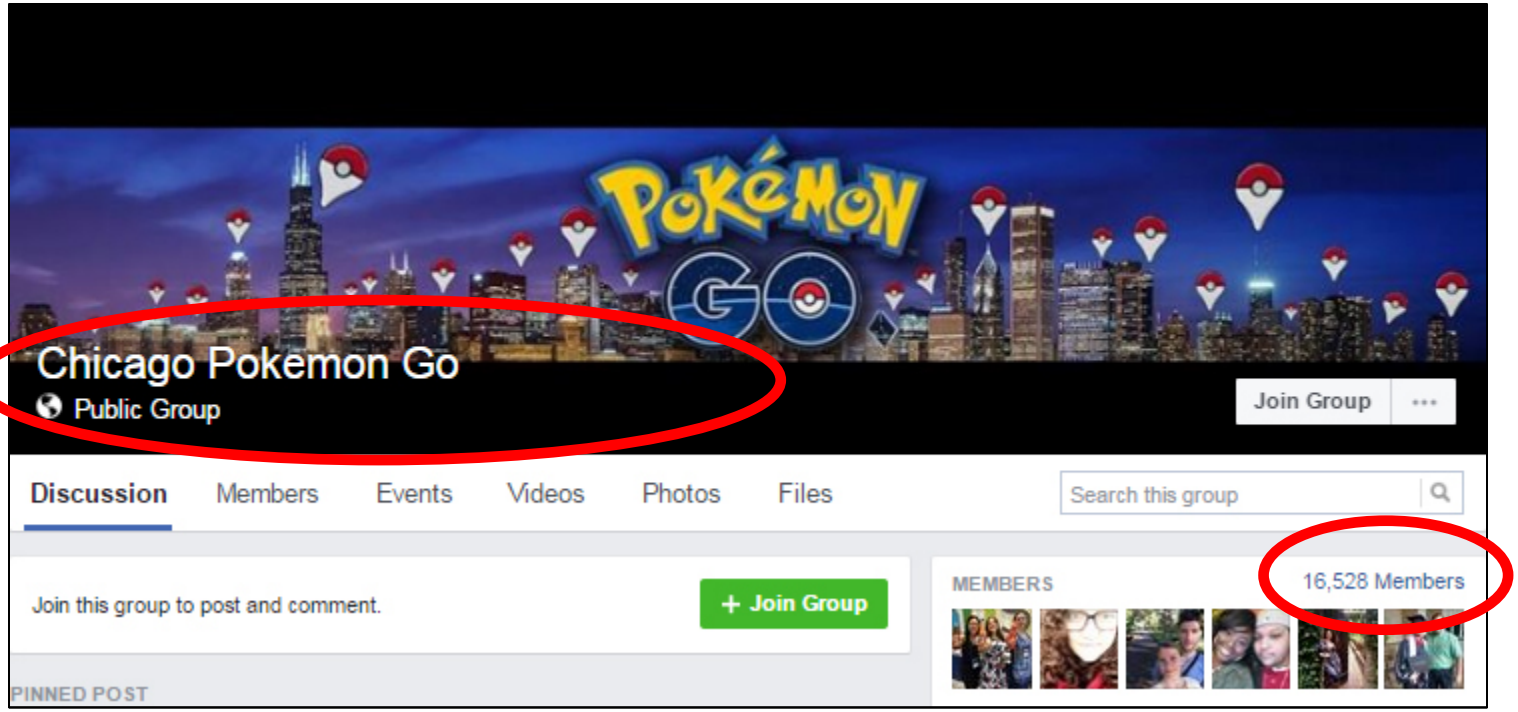

Public Observation
Events

Public Observation

Conventions


Public Observation
Sokcho

Online Observation



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Interviews

FINDINGS

In the Physical Space

Information Grounds

"An environment temporarily created when people come together for a singular purpose but from whose behavior emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information."

http://ibec.ischool.washington.edu/info_grounds.php

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Information Grounds
Attitude


Information Grounds
Attitude


Information Grounds
Resources
13
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Information Grounds
Environment


Information Grounds
Weather

Gameplay


Theorycrafting


Trolling


Joint Media Engagement

In the Digital Space

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Crowdsourcing

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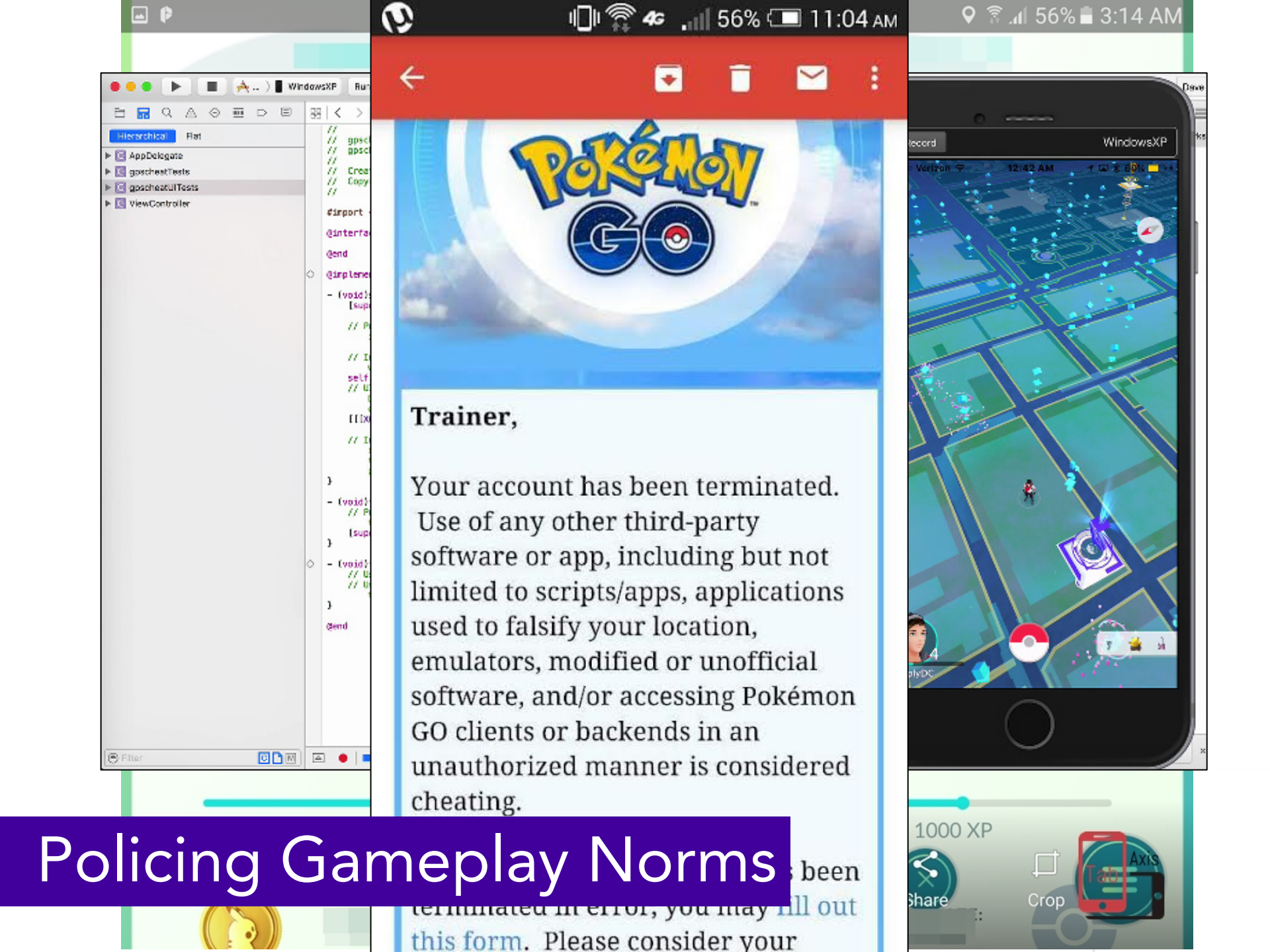
GENERATION I EGGS

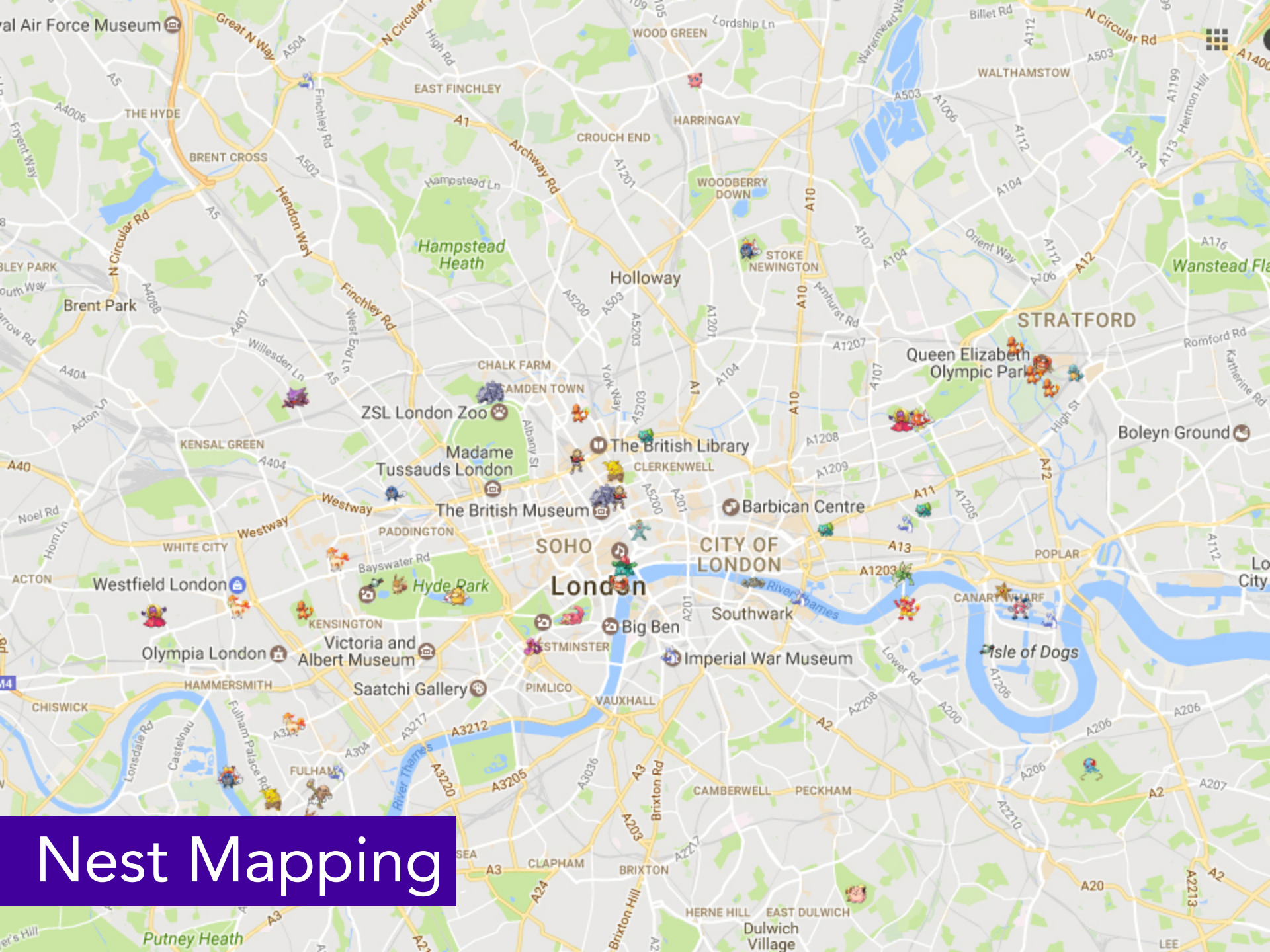
GENERATION II EGGS

Crowdsourcing

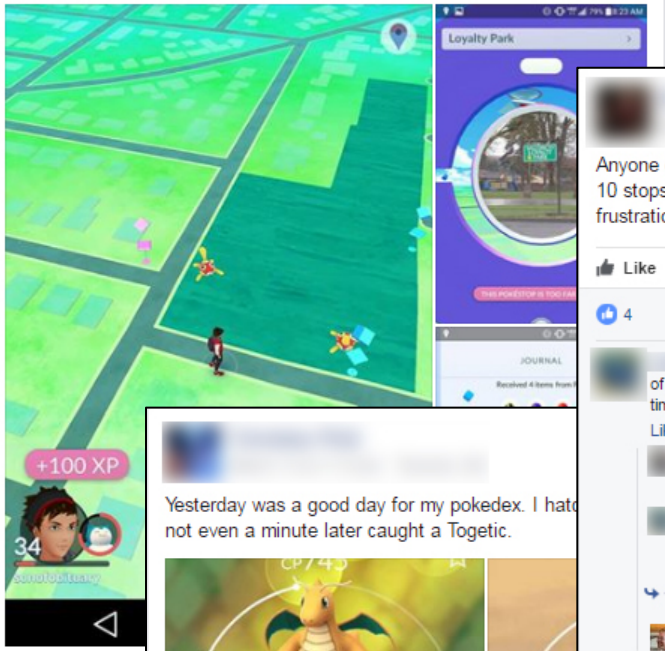
Crowdsourcing



Policing Gameplay Norms

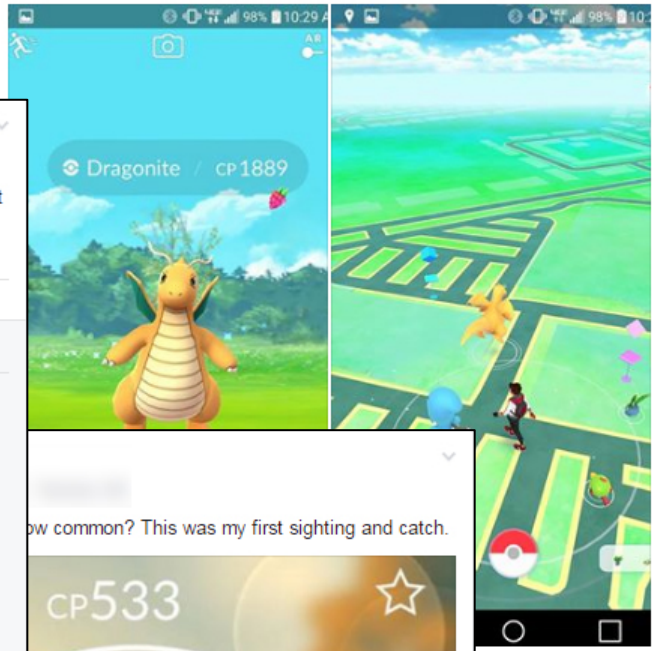

Nest Mapping
London
SOHO
CITY OF LONDON
Hyde Park
Hampstead Heath
Westfield London
Olympia London
Victoria and Albert Museum
Saatchi Gallery
Big Ben
Imperial War Museum
The British Museum
The British Library
Madame Tussauds London
ZSL London Zoo
Barbican Centre
Queen Elizabeth Olympic Park
STRATFORD
Boleyn Ground
Southwark
Isle of Dogs
Brent Park
Holloway
Dulwich Village
Putney Heath
River Thames
WOOD GREEN
HARRINGAY
CROUCH END
EAST FINCHLEY
WALTHAMSTOW
STOKE NEWINGTON
WOODBERRY DOWN
CHALK FARM
CAMDEN TOWN
CLERKENWELL
PADDINGTON
KENSINGTON
WESTMINSTER
PIMLICO
VAUXHALL
CAMBERWELL
PECKHAM
BRIXTON
CLAPHAM
FULHAM
HAMMERSMITH
CHISWICK
ACTON
WHITE CITY
KENSAL GREEN
POPLAR
CANARY WHARF
HERNE HILL
EAST DULWICH
THE HYDE
BRENT CROSS

Shuckle Nest downtown Sumner sorry if someone's already posted this information



Like

Fairwood people Dragonite in between Starbucks and apogee



Anyone else out there not getting the new item drops? I have spun at least 10 stops daily and still aren't getting anything. About to uninstall out of frustration.

Like · Comment

4

f you're talking the evolution items, then I think the chance of getting one is under 1%. They're pretty rare. People have been having a hard time getting them when spinning hundreds of stops a day.

Like · Reply · 2 · March 14 at 5:45pm

Like · Reply · 1 · March 14 at 6:36pm

When we go hunting I'll take you to my lucky areas. I've gotten 5 from the same 2 areas.

Like · Reply · 1 · March 14 at 7:33pm

View more replies

Write a reply...

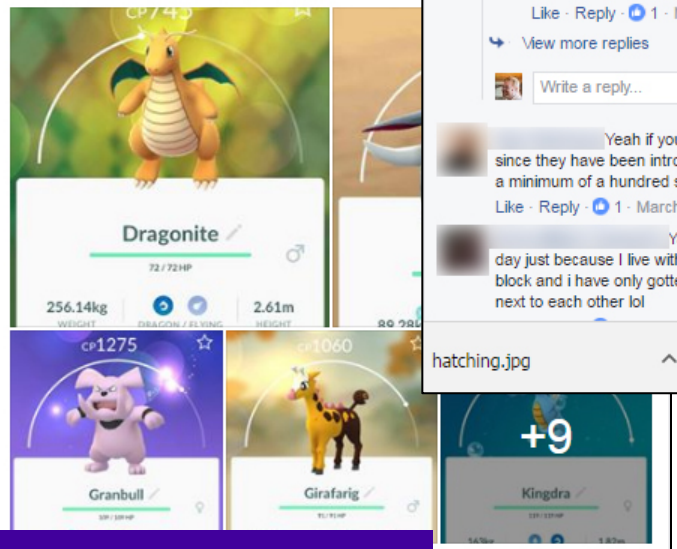
Yeah if you're talking about the new special items I have got 5 since they have been introduced You're Not Alone by not getting many and I spin a minimum of a hundred stops a day

Like · Reply · 1 · March 14 at 7:04pm · Edited

Ya same here. I get at least one to two hundred stops a day just because I live with 15 in a block radius and it takes 5 minutes to walk the block and i have only gotten 4 items. But I did get 2 back to back at stops right next to each other lol

hatching.jpg egg.png

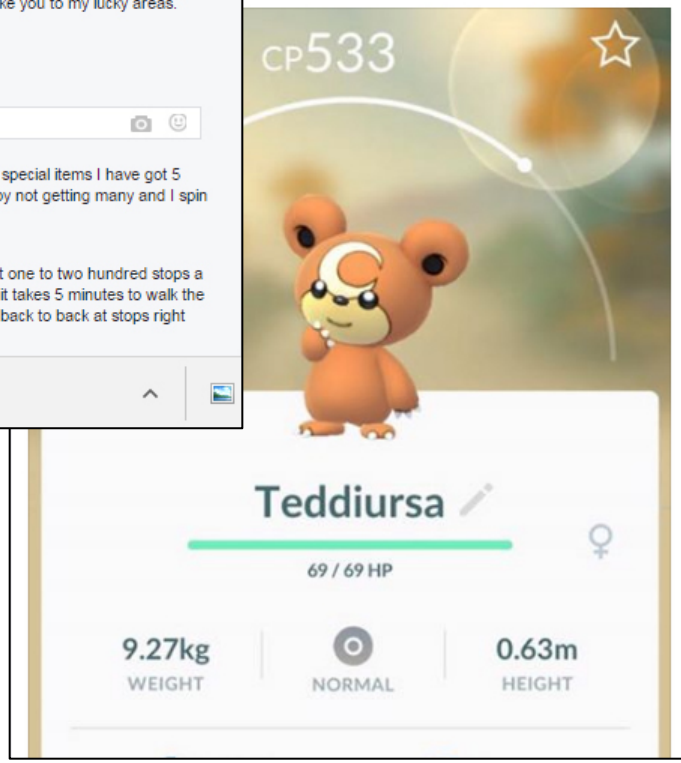
Yesterday was a good day for my pokedex. I hatc
not even a minute later caught a Togetic.



View 2 more comments

Tiffany Atkin Where did you snag the dragonite?

ow common? This was my first sighting and catch.



Metagaming

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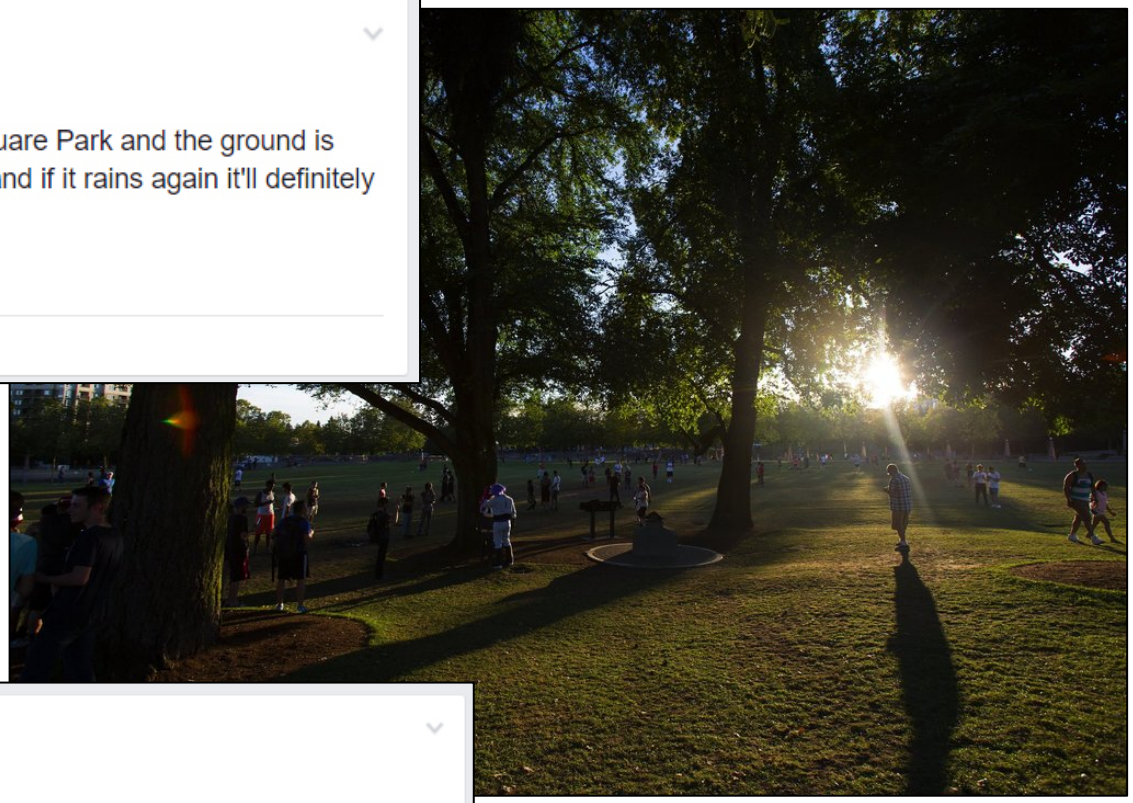
Word to the wise, I just got out of bellevue square Park and the ground is already pretty squishy with all the foot traffic and if it rains again it'll definitely be a giant mud pit.

4

Like Comment



Everyone at Mission Park!

There is an older man in his late 40's early 50's with a white mustache, gray shirt, Jean shorts, glasses and baseball cap who is pretending to lean on people's cars and is trying door handles and messing with gas caps.

When we sounded our alarm he flipped us off, walked into a bush and hoped that we walked away. Be careful!

43 14 Comments 11 Shares

Like Share

Real World Reporting

The ability to ask questions about how the world works, searching to understand knowledge in the world, recognizing the gaps in one's own understanding to accomplish goals, and investigating personal scientific questions.

Scientizing

Clegg, T. L., & Kolodner, J. (2014). Scientizing and cooking: Helping middle-school learners develop scientific dispositions. *Science Education*, *98*(1), 36–63.

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SILPH STUDY: #007

PUBLISHED: 03.09.2017

CRACKED EGGS: THE SECRET RARITY TIERS OF POKEMON GO EGG SPECIES

Before today, little was known about what species might hatch from an egg. Fortunately, the Silph Research Group has just cracked a major piece of the puzzle! It is the conclusion of the Silph Research Group that:

Egg species is determined according to hidden rarity 'tiers' that are not the same as the egg distance tiers (i.e. 2 km, 5 km, 10 km).

In simple English, this means that not all 10 km egg species are rarer than 2 km egg species or 5 km egg species. A simple example of this is that Dratini is presently a very common hatch, despite being in 10 km eggs. It is currently easier to acquire a 10 km egg with a Dratini inside than a 2 km egg with a Machop inside.

We'll take it one step further and show the tiers we believe we have identified and the species therein.

THE DATA

Our researchers have been collecting egg data for many months and have observed several changes to the egg species distribution. For this study, we focus on eggs acquired *after* Halloween.

5,945 eggs were collected post-Halloween before the launch of Gen II. Here is the breakdown in

Scientizing

TRENDING

Research: Cracked Eggs: The Secret Rarity Tiers of Pokemon GO Egg Species
Research: Can You Still Hatch Baby Pokemons' Evolved Forms or Region-Specific Pokemon?
Research: PokeStops and Egg Distances
Research: Does Anything Influence Your Pokemon's Evolution Moveset?

The Silph Road @TheSilphRoad
Cracked: The Silph Research Group just made a major discovery about how egg species are determined, travelers! thesilphroad.com/science/secret...

Cracked Eggs: The Secret Ra...
Before today, little was known a...

SILPH STUDY: #004

PUBLISHED: 11.15.2016

DOES ANYTHING INFLUENCE YOUR POKEMON'S EVOLUTION MOVESET?

"Is there ANYTHING I can do to influence a Pokemon's moveset?"

When a Pokemon evolves, its quick and charge move are re-rolled according to unknown odds. Conventional wisdom has settled on the idea that the moves are chosen randomly from those available to that Pokemon species. Unfortunately, no study has seriously examined evolution moveset factors, and due to a lack of this data, myths and rumors have perpetuated.

Fortunately, the Silph Research group has taken a look!

When a Pokemon evolves, its quick and charge move are re-rolled according to unknown odds. Silph researchers began recording various attributes of their Pokemon before evolution, including their moves, appraisals, STARDUST, and their evolved movesets. Over **10,000** evolutions were captured over the course of the study.

FINDINGS

After thorough examination, the Silph Research group has come to two major conclusions:

FINDING #1:

of correlation between the following factors and post-evolution movesets:

FACTOR EXAMINED	CORRELATION FOUND?
Pre-evolution QUICK MOVE	No
Pre-evolution CHARGE MOVE	No

TRENDING

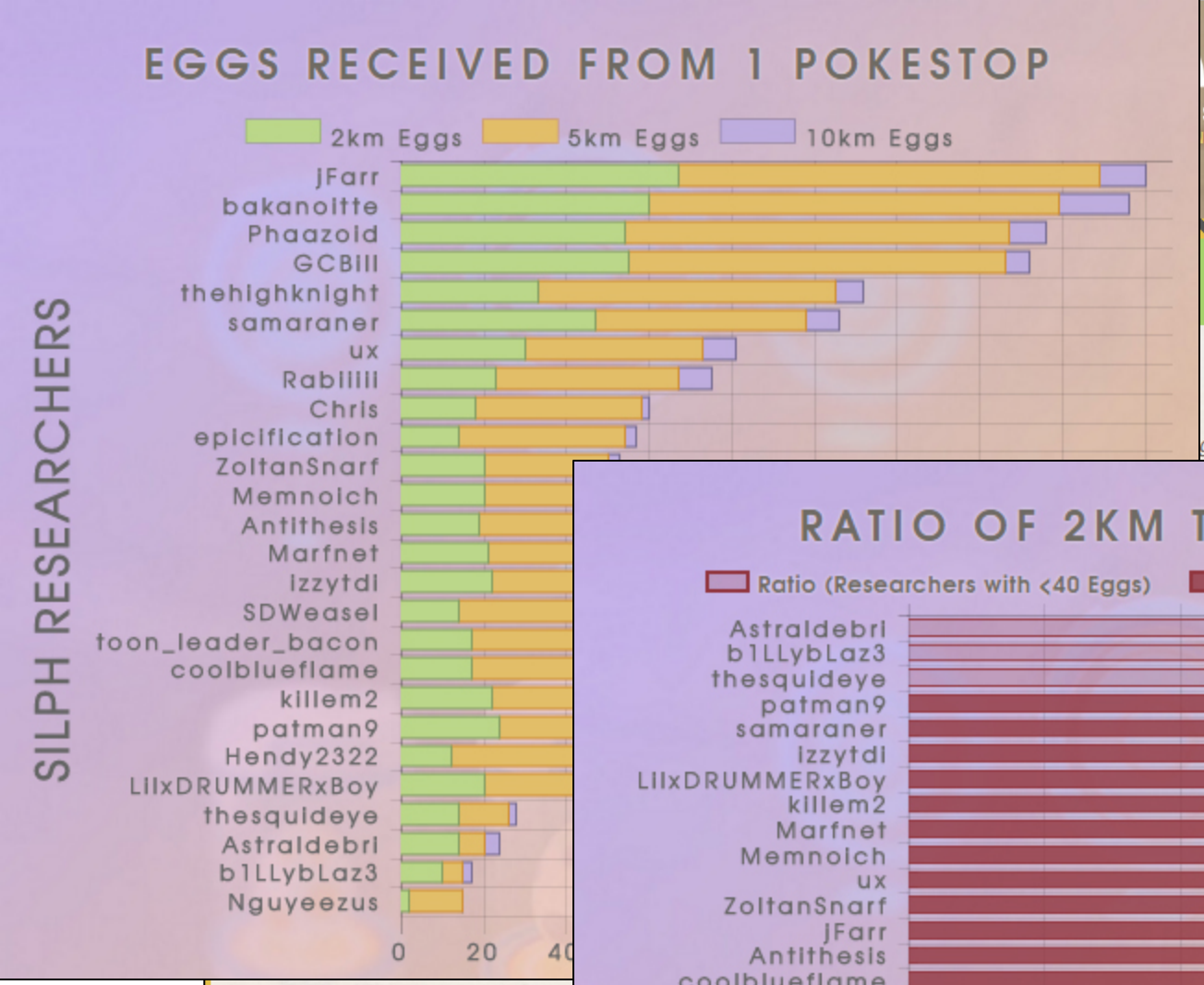
Research: Cracked Eggs: The Secret Rarity Tiers of Pokemon GO Egg Species

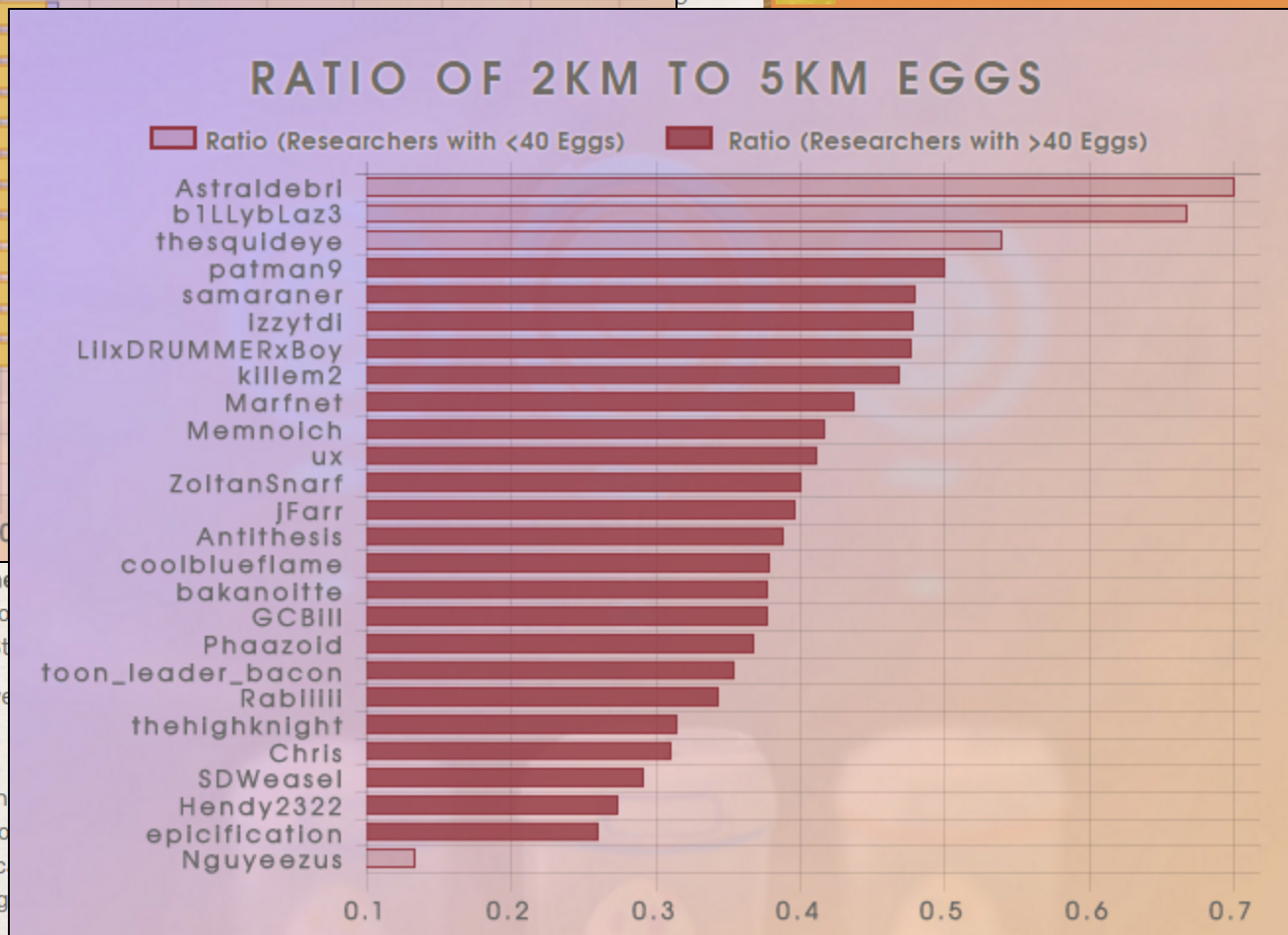
Research: Can You Still Hatch Baby Pokemons' Evolved Forms or Region-Specific Pokemon?

Research: PokeStops and Egg Distances

Research: Does Anything Influence Your Pokemon's Evolution Moveset?

Scientizing





significantly more 5k eggs from th
PokeStops were observed to give
we continue learning about PokeSt

Now for the fun part: how we arriv

bution
ason fo
ing loc
researcher is given in the following

Scientizing

ONGOING WORK

Identity and Gameplay

Privacy and Safety


Design
Not an Actual Research Team Member

Collaborative Scientizing in *Pokémon GO* Online Communities

Jason C. Yip, Travis W. Windleharth, & Jin Ha Lee
University of Washington, The Information School – GAMER Lab; {jcyip, travisw, jinhalee}@uw.edu

Abstract: Finding and applying science practices in everyday contexts (scientizing) is a powerful way for people to engage in science learning. This paper examines how people collaboratively scientize through a massively multiplayer mobile game called *Pokémon GO*. For three months, we conducted observations of online communities around *Pokémon GO* and examined how crowdsourcing
We adhered to the standards o
of scientizing in online di
crowdsourcing collaborations t
creating mapping sets. We de
authentic and simple science
informal science learning are e
be used to motivate scientizing

Introduction

One goal of science education for yout
apply science in their everyday lives (R
abstract and connecting science learni
Researchers have attempted to understa
driven learning (Edelson & Joseph, 20
hobbies (Azevedo, 2013). One concept
and practices on their own terms is the r
the ability to ask questions about how
recognizing the gaps in one's own un
questions. Today, we live in digital age
projects and can break it down to simpl
online communities, people can conne
information communication technologie
online crowdsourcing can promote scien

In this study, we are exploring
massively multiplayer online (MMO) au
GO because the location-based nature o

transparency, players have come togeth
Based on our online observations, thes
engage people in scientizing practices vi

"It wasn't really about the Pokémon": Parents' Perspectives on a Location-Based Mobile Game

Kiley Sobel[1], Arpita Bhattacharya[1], Alexis Hiniker[1], Jin Ha Lee[2], Julie A. Kientz[1], Jason C. Yip[2]
[1]Human Centered Design & Engineering, [2]The Information School
DUB Group, University of Washington, Seattle, WA, USA
{ksobel, arpitab, alexisr, jinhalee, jkientz, jcyip}@uw.edu

ABSTRACT
Though prior work shows parents worry about screen media experiences displacing physical activity and time outdoors, this research does not account for location-based mobile games like *Pokémon GO*, which specifically facilitate outdoor activity. To fill this gap in the research, we surveyed and interviewed parents to understand (1) their values and perceptions of this type of gameplay and (2) how they co-play *Pokémon GO* with their children. Our findings provide empirical evidence that, in addition to appreciating the increased exercise and time outdoors, parents valued how play led to family bonding experiences. Furthermore, some traditional concerns about screen time
this context, and new concerns about safety in
nvironments emerged. Parents mitigated these
ith rules and gameplay choices, such as
control of the mobile device, to ensure children
This work contributes an empirical understanding of families as co-users of technology and offers a generative lens to study and design for joint media engagement among family members where gameplay

with hostility in children [65]; development of anxiety [77] and attention disorders [78]; risk of obesity, disordered sleep, and other health problems [15,59]; Internet addiction [9], and a myriad of other concerns. As such, the fear that children are displacing other "healthier," more "social," or more "educational" activities by engaging with screen-based media is seemingly omnipresent [67]. In response to these concerns and the fact that digital media is now everywhere, parents have had to take on new roles as mediators of their children's screen time [3,6,16,58].

Yet, with advances in digital technologies and new media comes the knowledge that not all screen time is created equal. Children passively and silently viewing television programming alone is "different" than them talking to grandparents over video chat, actively reading a digital book with a parent, or playing *Dance Dance Revolution* (a dancing game) with a sibling. One way to conceptualize this difference is through *joint media engagement* (JME). JME refers to the experiences of people using media together, which include viewing, playing, searching,

Research In Press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ENERGY: 2H
OWNER: HILDAY
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