ABSTRACT

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Disruptive behaviors, such as trolling, have eluded definition across multiple platforms. Adding another case study and new platform to the list of past scholar definitions, this study does not define what disruptive behavior looks like in location-based mobile games (LBMG), but looks at how a community within the LBMG, *Ingress*, views and manages disruptive behaviors. Through the combined use of multi-cited ethnography and connective ethnography, three themes came from 11 participant interviews (8 male and 3 female) with examples from interviews and observations of public, in-game communications panes and private community messaging channels and forums and suggestions of how to manage these behaviors are noted. Additionally, suggestions are offered about how to perform future ethnographic work within hybrid spaces such as LBMGs and augment reality games (ARG).

Intent or Misinterpretation? Disruptive Behaviors within *Ingress*

by
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BIOGRAPHY

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Introduction

On the way back from a day trip to the zoo, TechDoc[1] and TheEnigma decided to take a detour and play the augment reality game Ingress *at historical points between the zoo and their home. This led them to the historic downtown of a smaller town. Before long, a local player of that town appeared, beginning to undo the work of recapturing the virtual, geolocated resources TechDoc and TheEnigma had just seized via their smartphones. A local player undoing the handiwork of out-of-town players is a common occurrence, and did not faze TechDoc and TheEnigm; but the player did not leave their trail even after crossing county borders. TechDoc began to worry, and purposefully turned several times in his car to lose this follower, yet within twenty minutes the player's truck re-appeared. Further attempts at losing the truck yielded the same result. It kept coming back. This player followed them over 3 counties before the two decided to just head towards home. They thought that the player would leave once on a major highway, yet the truck continued to follow them. Fear creeping in, TechDoc headed towards the local police station to seek help. The truck turned back towards the highway shortly after.*

While not everyday occurrences, stories such as this are not rare within the location-based mobile game (LBMG) *Ingress*. *Ingress* is a game produced by Niantic Labs and started in late 2012 designed to enable mobile gaming and promote learning about local history. The creator, John Hanke, utilized Google Maps, a program at Google he helped develop, to create an LBMG which is played within a hometown, a local park, or even in a famous city. To play *Ingress*, one needs a mobile device using Android or iOS operating systems enabled with GPS and internet connection, the ability to move around in some fashion, most often to visit the landmarks, pieces of art, or historic spaces or monuments around which the game

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[1] For confidentiality reasons, all names of players (participants or mentioned by participants) have been changed.

positions its virtual resources and points of interest known as portals[2]. Players—known as agents—are divided into two teams or factions—the Enlightened[3] (the green team) or the Resistance (the blue team), and "run around [their] city, collecting [virtual] keys, weapons and upgrades, and capturing portals for their faction" (Smith, 2015).

Ingress is arguably the most popular LBMG in the world with more than 12 million downloads as of August, 2015 and events spanning the globe (Grubb, 2015; Smith, 2015). There is no one way to play *Ingress* (Majorek and du Vall, 2015); as one participant in my study noted, "there's folks who like to field, which is to create a triangle between 3 different points" by linking[4] portals together to claim the geographic area for their faction within the digital landscape. Other players prefer "the *destroy and deploy* type play," where they deploy items known as resonators[5] on a portal to claim or capture the portal for their faction "so other folks can come back and use that for their fielding[6]." Since Majorek and du Vall's article, *Ingress* has added missions that give out digital badges some players prefer to collect while others continue to use the game to explore history previously hidden from view or join local and global groups utilizing social media (Chess, 2014).

I have been a part of the game since early 2013 when *Ingress* was in beta testing, while it underwent alterations for mass integration of the millions of players who now play

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[2] A portal is an in-game point of interest to be captured; portals are similar to flags in the game capture-the-flag, except portals are stationary. They are captured through virtual 'stakes' that the players plant using the *Ingress* application while in close physical proximity to the portal's location.
[3] Resistance and Enlightened: Names of the two factions within *Ingress* player choose from.
[4] Linking: The connection of two portals Like connect the dots. Imagine each portal is a dot that can be connected by a line. The link is that line
[5] Resonators: In-game items used to capture or upgrade portals. Example: staking out land with stakes or flags.
[6] Fielding: Claiming an area within the game for an individual faction by linking portals together.

worldwide (Grubb, 2015; Smith, 2015). Though my experiences have generally been positive, I have encountered stories detailing the conditions and consequences of harassing and disruptive behaviors. Researchers have looked into many aspects of *Ingress*, including Google's harvesting of aggregated game data produced by players (Hulsey & Reeves, 2014), the game's compelling use of global communication networks to highlight local landmarks (Chess, 2014), and how LBMGs, like *Ingress*, may coincide with new forms of teaching and learning (Sheng, 2013). Yet, no literature has looked in to the multiple, often mundane but often dangerous, forms of disruptive behavior that players engage in – and how players themselves conceptualize and manage disruptive behaviors. With the popularity of LBMGs on the rise and the partnership of Niantic Labs and Nintendo producing the family/children oriented PokémonGO rumored for release in 2016, it is important to start the dialogue of what disruptive play within a globally played LBMG looks like and how it is handled by players.

Disruptive, cruel, and/or toxic online behavior (threats over Twitter, fake 911 calls, the release of personal information online, etc.), commonly known as *trolling* online, has been gaining increasing attention by the national and international media (Sottek, 2014; Scimeca, 2014; Dewey, 2014; Totilo, 2014; McDonald, 2014). These behaviors stretch back to the advent of the Internet, and while disruptive or trolling behaviors has been explored across online magazines, video games, social media and more (Suler & Phillips, 1998; Suler, 2004; Hardaker, 2010; Mantilla, 2013), existing research does not pinpoint a single definition of what constitutes trolling; it varies by platform. While early research on trolling suggested that "the snerts of virtual reality can rarely hurt you…unless you let them" (Suler and

Phillips, 1998, p. 293), others writing around the same time (for instance, Dibbell, 1998)

documented that reckless or deliberately hurtful online behavior can have very real

psychological and emotional consequences.

Recently, the rise of new forms of disruptive behaviors originating in online

platforms but threatening users' *physical* safety and security have attracted renewed attention

to trolling. In August 2014, disruptive and cruel behaviors became a highlight in mainstream

news when prominent women within and around the gaming community, including Zoë

Quinn, Brianna Wu, Anita Sarkeesian, and others, fell under the eye of a campaign known as

#Gamergate. #Gamergate involved persons taking to 4chan[7], 8chan[8], and Twitter, ostensibly

organized as "a movement about ethics in video game journalism," but in fact involving "a

months-long campaign of harassment against women and progressive voices" (Sottek, 2014).

In short, #Gamergate was an effort of silencing progressive voices of those working for

inclusivity and diversity within the gaming industry by threatening the aforementioned

women (among many other activists, artists, and academics) with death and rape threats.

Several news outlets additionally refused to cover the event out of fear of retribution from the

aggressors using the hashtag #GamerGate (Scimeca, 2014; Dewey, 2014; Totilo, 2014;

McDonald, 2014).

Along with #Gamergate came increased attention to forms of online harassment with

real and immediate repercussions, including "doxxing" and "swatting." Doxxing (also

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[7] 4chan is an internet forum where users may post anonymously about a variety of topics. It originally started with discussions of Japanese anime and manga, but has since expanded to numerous other topics broadly related to internet and popular culture

[8] 8chani is internet forum similar to 4chan but with much less restriction on what can be posted; it has become a haven for taboo and often misogynist topics.

spelled doxing) is the release of private information such as personal telephone numbers, addresses, and so on, and an attendant inundation of harassing emails, phone calls, text messages, unsolicited pizza deliveries, and more (Eleveth, 2015; Kohn, 2015; Economist, 2015). Swatting stems from doxxing, but involves a fake call placed to *911* with the intent of orchestrating a SWAT or police raid on the victim's home (Schoenfeld, 2015). Swatters, if uncovered, may be formally tried in court with punishments ranging from a few months to 25 years to life in jail (Gogol, 2014; Fagone, 2015). One "serial swatter" even spanned multiple countries targeting primarily women, or men who defended them (Fagone, 2015). These actions extended well beyond "snerts of virtual reality" (Suler and Phillips, 1998), causing deep psychological, emotional, and often physical consequences to victims and those around them. One fact to keep in mind, though, is that the above tactics of harassment *do not* pit the aggressor face-to-face with the victim(s). Trolling behaviors, doxxing, *DDoSing* (distributed denial of service), and swatting use the affordances of online media to carry out localized, physical threats. In addition, in all of the above cases, the aggressor is typically hidden from view, only known by a pseudonym or game-name. But what happens when play takes place across both virtual and physical domains, as in LBMGs and the newer alternate reality games (ARG)?

An emergent form of gaming gaining popularity has brought into question what happens when online toxicity moves from computer screens to smart phones and the new patterns of mobility and presence they make possible. With a shift in platform, the chance of interacting with other players face-to-face increases greatly. *Ingress* is, as of this study, arguably the most popular LBMG and hosts a wealth of player communities worldwide.

Studying specific player communities allows for us to see how the game blends local and global networks, creating what Chess (2014) calls an "augmented regionalism." This study seeks not to define trolling within *Ingress* but to put into context how one community *within* the global landscape of *Ingress* understands disruptive behaviors - including the conditions that give rise to it, the consequences it can lead to, and the players' strategies for mitigating and confronting these behaviors.

There are many instances that can be studied within hybrid spaces of *Ingress*. *Ingress* depicts a new form of LBMGs which highlights face-to-face social interaction, promotes active play, and is becoming increasingly common around the globe. I want to start this dialogue with the context of this Southeastern United States community by performing a multi-sited, hybrid ethnography (Marcus, 1995; Burrell, 2009; Hine, 2007) including observations across multiple communications platforms and interviews of local *Ingress* players on the Resistance faction revealing three themes of disruptive behavior and general ideas of how to manage them.

Literature Review

Donath (1999) explains that "[a] single person can create multiple electronic identities" (p. 29), and from the notoriety of trolling behaviors online, it seems that those who 'troll' are not always out for innocent fun. But what exactly is trolling? What behaviors does it connote?

Over the past twenty years, disruptive behaviors like trolling have seen numerous case studies which have yet to affirm a singular definition of what connoted "trolling." Situating trolling broadly in a consideration of online behaviors, Suler (2004) first looked into *"the online disinhibition effect"* where users of online media "loosen up, feel less restrained, and express themselves more openly" and articulated two versions of disinhibition: toxic and benign (p. 321). Toxic disinhibition is the more damaging version, constituting "rude language, harsh criticisms, anger, hatred, even threats" against others online (p. 321). Conversely, benign disinhibition is where persons may "show unusual acts of kindness and generosity" (Suler, 2004. p. 321). These categories were not mutually exclusive, however, for "the distinction between benign and toxic disinhibition will be complex or ambiguous in some cases", meaning that some disinhibition can look like it falls in the toxic category, yet is therapeutic to work out personal issues and self-discovery (Suler, 2004. p. 321).

Contemporary discussions of trolling seem to align with Suler's (2004) toxic disinhibition – trolling is generally regarded as a hurtful and harmful behavior facilitated by the affordances of online media. These behaviors are found across the Internet, from online magazine forums and social media to videogames and, again, do not have one solid definition (Finchman & Sanilippo, 2015; Hardaker, 2010; Mantilla, 2013) nor any research that examines trolling in global LBMGs specifically.

Trolling behaviors are known to be sources of negativity and frustration for those who fall victim. Binns (2012) discusses the negativity trolls bring to forums and comment threads on online magazines as well as how persistent they can be even after being banned

from the site. By looking at comments on online magazines as well as qualitative research through conversations and interviews with magazine editors, Binns (2012) depicts trolling as a deviation from normal conversation, which can "vary…from site to site" (p.548). Some sites tend draw more problems than others. Yet, trolling can sometimes be predicted before the site goes live by looking at the "magazine's demographic, brand and content" (p. 550). Fichman and Sanfilippo (2014) found a similar response while looking into three online different communities: Yahoo! Answers, Wikipedia, and *League of Legends*. Trolling, according to Fichman and Sanfilippo, depended on the community's socially acceptable standards: "aggressive behaviors are relatively unwelcome in online Q&A communities and are seen as ideologically motivated, rather than something humorous that is done in good fun, as reported for gaming communities" (Fichman & Sanfilippo, 2014, p.177). Fichman and Sanfilippo (2014) also looked into whether gender contributed to players' perception of trolling behaviors and individuals, but ultimately found no significant connection except that male trolls were taken more seriously.

In her book on the topic, Phillips notes that social media users who deliberately engage in deviant and disruptive behaviors tend to "self-identify as trolls", whom she describes as "intelligent,…playful and mischievous and wildly antagonistic" (Phillips, 2011, p.68). Phillips' research shows that those who exhibit these behaviors seek out the responses and time commitment of others; everyone who participates in the platform is potentially a target. As such, the power of those who troll comes in the form of choice—a troll chooses to play while the unknowing victim takes the bait. Otherwise, "it's no longer trolling" (Phillips, 2011, p.69). While interviewing a self-proclaimed troll about the fluid community "of trolls

who have been at this for a while and take their anonymity seriously" (Phillips, 2011, p.71), Phillips suggests that those who engage in trolling see it as a form of resisting authority. This can be seen in play as banned persons continuously create new accounts to continue their behavior (Binns, 2012), disseminating poor or harmful information on advice columns or instigating a conversation simply for a response (Hardaker, 2010). Yet, Phillips (2011) found that trolls "rarely have any personal investment in the things they do and say" (p. 69) and are in the game solely for their entertainment. These are all forms of disruptive behaviors, however, not all disruptive behavior is reported to be on purpose.

According to Suler and Phillips (1998), who examined deviant play in the multimedia chat community *Palace*, deviance is occasionally accidental–like in the case of new players. New players within games may not know the social rules and accidentally break rules as they enter an online community. Disruptive behaviors may also arise from persons acting out and could be working through questions in their own identities (Suler & Phillips, 1998). Binns (2012) further explores instances of accidental deviation by reporting how some magazines try to combat perceived maliciousness by inviting the most egregious users to tour their headquarters in attempts to make a personal connection with them. For those who accepted, it was discovered the *troll* had often not intended the malicious perception and the event helped create a visible change for future posts.

Purposeful or accidental, trolling behaviors more often than not prove to be disruptive to the norms created by a community. Whether they be malicious/rude comments on online magazines (Binns, 2012), aggressive comments on online Q/A forums, user wikis, or in video games (Fichman & Sanfilippo, 2014), or persons simply going against authority within

these chosen online spaces (Phillips, 2011), trolling plays out in different ways across different networked platforms and communities, each of which has specific notions of what constitutes trolling. However, as of this study, no research has looked into disruptive behaviors across LBMGs or when multiple platforms (as opposed to a singular platform) are used to communicate.

LBMGs vary from traditional online gaming by moving players away from stationary monitors and utilize location aware, mobile technologies to turn a physical space, city, country, etc. into a *hybrid* space of play (de Souza e Silva, 2009). In the case of *Ingress*, the LBMG is similar to how Montola (2009) depicts pervasive games: "combining bits and pieces from various contexts to produce new play experiences" (p. 7). *Ingress* combines capture-the-flag with connect-the-dots and geocaching all within a user's phone and localized area. It is improbable and to play *Ingress* without some form of mobility.

However, if Signh and Signh's (2013) definition of ARGs is taken into account, *Ingress* may be more closely related to augmented reality (AR) than most LBMGs. According to them, "AR presents a view of the real, physical world that incorporates additional information to augment this view" (p. 66). Examples of this range from navigation apps for assistance in road navigation to commerce apps that give location specific advertising, but Singh and Singh only mention gaming interfaces when conversing about *triggering* events or modifying physical objects via computer assistance though smartphones or wearable technologies. Lukosch, Billinghurst, Alem, and Kiyokawa (2015) and Wolf, Grodzinsky, and Miller (2015) additionally situate augmented reality more with wearable technologies that alter physical objects digitally.

Based on the assumed definition that ARGs involve the alteration of physical objects, *Ingress* will stay as defined by LBMG. Without assistance and continued development of wearable technologies, *Ingress* remains as an alteration of a digital map and not physical objects. However, it does include some aspects of AR such as *triggering* of location specific events, so the possibility of AR integration is still open for future iterations of the game. The importance of *Ingress* for *this* study is actually in the future of LBMGs utilizing AR modifications in global setting. With the Pokémon Company's release of *PokemonGO* – an LBMG targeted towards families and children – rumored to release in 2016, this form of gaming is gaining further attention by developers and gamers, yet remains under-explored by academics in terms of disruptive play or trolling behaviors.

This study, specifically, seeks to look at the LBMG *Ingress* launched by Niantic Labs in 2012 – the same company creating *PokemonGO* – and how a player community in the Southeastern United States defines and manages disruptive behaviors typically known as trolling taking into account the use of multiple communication platforms. By studying the more adult oriented *Ingress* first, the conversation can be opened for how a localized community views and manages trolling or disruptive behaviors.

Methodology

This study looked at how veteran *Ingress* players within the Resistance faction in a large city in the southeastern US experience disruptive behaviors, and the ways their community manages these behaviors. The city, community and individual players will remain nameless for the confidentiality of those depicted within this study. I began the study

by conducting a "multi-sited" ethnography of player communication, including interviews and observations of communication across multiple platforms (Burrell, 2009). Eleven participants (8 male and 3 female, with ages ranging from early thirties to late sixties) were interviewed over a period of 2 months in early 2016. Concurrently, a month-long observation of the local Resistance faction's non-game-based messaging service (Slack) and in-game communications services ("comms") was conducted to document the forms of deviant behaviors players described and how the community deals with them. Participants' interview responses drove the direction of observations and data analysis.

Multi-sited Ethnography

Marcus (1995) first described multi-sited ethnography by saying "an object itself cannot be accounted for ethnographically by remaining focused on a single site of intensive investigation" (p. 96). With the advent of the Internet, the idea of the *local* has shifted in the way it was once viewed. Marcus (1995) introduces multi-sited ethnography as a different way of thinking about the local and singular ethnographic site. Maeder and Nadai (2005) utilized Marcus' (1995) methodology in their study of welfare benefits within five different sites of welfare administration. As Maeder and Nadai (2005) discovered, multi-sited ethnography "served to obtain a more fine-grained picture of similar process in different places" (p. 6). In the case of this study, I will be looking at multiple sites, primarily online, that *Ingress* players utilize to manage community disruptions and those participating in trolling behaviors.

That being said, I am not using Marcus' (1995) version of multi-sited ethnography but Jenna Burrell's (2009) expansion of the term. In Burrell's (2009) view, multi-sited ethnography observes a network of sites to "reconcile…special complexities" of field sites the Internet brings into view (p. 189). Ethnographic field sites are assumed to have "pre-constructed borders anyway, geographic, social, or cultural borders", yet "[n]etworks in contrast are somehow infinite…open structures and highly dynamic" (Wittel 2000). Because of this, Burrell (2009) proposes the following "steps (roughly sequential) for field site construction in contemporary ethnographic practice" (p.190).

Firstly, Burrell suggests to "*[s]eek entry points rather than site*" and to "make a strategic decision about what position(s) to take within the network" (p. 190). This community operates across multiple platforms and geographic locations and, as such, was described as being "quite confusing to people" by a participant (and a community moderator) – referring specifically to the use of the project management service, Slack, to help address and manage trolling and organizing in-game events with local members of the Resistance. As I was already a member of this community, I held an understanding of how the Slack[9] channels worked yet still sought out participant and moderator assistance for where to begin. The reason pertains to the various *communities* that make up the population I play with.

These communities are segmented partially based on the communication platform (Slack, Google+, Google Hangouts, and additional services) and partially based on the

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[9] This community designed Slack in a tiered format. H7 is the lowest level of the group consisting of the most players and usually used to convey basic gameplay instructions and answer new player's questions and concerns. As players become trusted members of the community, they can reach higher levels which are represented through higher numbers. H3 and up typically require vetting by other, trusted players.

geographical boundaries drawn by the game, as it breaks populated areas into smaller regions and combines less populated areas into larger regions. Since the community as a whole is a compilation of various communication platforms, the space of play (and of research) cannot be delineated by a singular physical location. Instead, players move through a *hybrid* space of play that is both on a player's digital device and within physical spaces that "the user must be moving around [in]…to play" (de Souza e Silva, 2006, p. 406). Since the game has no singular 'space' either digitally or physically, but a network of hybrid spaces, I relied on community moderators and members to navigate the spaces members typically used.

This is where I found Hine's (2007) *connective ethnography* benefitted the study of hybrid spaces like *Ingress*. Hine (2007) explains that the "[t]he research design, in effect, emerged in the process of the ethnography, and to a large extent was its product rather than its precursor" when discussing her study of e-sciences (p. 620-621). This shows that relevance is not always discovered in the present but also at a later time. For this study, the notion of relevance helped me to bracket prior understandings of the game and remain open to unexpected results. Information from offline sources (participants) and from online sources (communication technology, game space) blended together in this study, for aspects of the game could not be removed even in physical spaces.

Participants were constantly plugged into the game even if phones were away. It was imperative to keep in mind that an event within the game could alter events out of the game at any time and vice versa. As such, keeping track of both simultaneously was just as important as keeping track of events only offline and only online. I did this by keeping time logs of when events happened and referring to the logs kept by *Ingress* and the social

media/messaging services the community used. Screenshots of the in-game chat service preserved events as they happened and gave general timestamps to refer back to via publically accessible game logs. Reflection on past information occurring concurrently in the offline and online showed relevant themes about the topic I missed at the time of the first experience and gave examples of participant descriptions of disruptive behaviors and how to manage them.

My reliance on community moderators and members continued through the entire study. Instead of having participants simply setting the path I traveled down and moving on, I referred back to participants to exchange observations and share data as a community member. I decided to take on a more *apprentice to mentor* role to learn about relevant events of this particular area. Following Burrell's recommendations, I started with moderators of a community which plays *Ingress* in the Southeastern United States and invited them to show me where to look next. From there, and based on interviewed, veteran participants (some from within the moderating group while most from within the main community), I moved through communication platforms I previously had access to and joined other, open Slack channels with the help of participants and moderators who invited me to the channel. My own process of moving through these various channels continues to Burrell's (2009) second suggested step: "*Consider multiple types of networks*" (p. 191).

Unlike Marcus's (1995) previous iteration of multi-sited ethnography, Burrell (2009) takes into account the multiple directions researchers can take once inside the networks being studied. For example, within my *Ingress* community, there are various social media used outside of the game to communicate with other Resistance and opposing Enlightened players,

including but not limited to Slack, Google+, Google Hangouts, and GroupMe. There are additionally various "distances" one can be privy to viewing within the in-game communications panes. Using the various distances of communication allows players (and myself) control of how expansive their networks of communication and interaction extend. Similarly, within Slack, Google+, and Hangouts, players have some control over when to join and exit groups or channels, thus maintaining both the social and geographic scope of networks they wish to engage. For this study, I took into consideration the various geographic distances and kept the range set to the 20 kilometer (km) setting to stay within a self-imposed geographic location. However, a single event which exceeded that geographic distance within the in-game chat service required the adjustment to the 50km setting. Again, participants became essential to understanding parts of the event as certain, key messages did not appear via my viewpoint but did in another geographic location and vice versa.

Another of Burrell's insights I draw from is to "*[a]ttend to what is indexed in interviews*", wherein we look at the language participants use to "construct associations to and between spaces" (Burrell, 2009, p. 192). Within this study, I used the participants' responses to guide where I looked for references to disruptive or trolling behaviors and for what constitutes "disruptive" and "trolling" within and around the community. I also looked at the in-game chat services based on their insights of where most chatter (either general or specifically to the topic of study) occurred. In some cases, the players themselves pointed out events they deemed disruptive and/or allowed access to materials they may have gathered to help mediate or decipher what caused a disagreement.

My own gameplay within *Ingress* gave me access to play experiences with a localized group of players, but interviews with participants extended both my global and social network. Without these interactions, I would not have recognized the importance of some of the larger, less secure channels where most non-operation conversation occurred. These conversations ranged from explanations of game play and strategies to idle player chatter; they were also where I saw the most involvement from veteran players in managing any confrontations.

Interviews and Observations

Over the course of this study, interviewing 11 *Ingress* players on the Resistance (8 males and 3 females—all given names and game handles have been changed to protect the identities of participants and any additional players spoken about), I encountered various explanations of what trolling behaviors look like. As one participant noted, these behaviors "can take the form of [communications pane] messages, antagonistic game actions, or sometimes real life confrontation", and range from jokes between friends that are taken too far, to physical or digital stalking. I identified three overarching themes that, taken together, account for my participants' experiences of trolling within *Ingress* and discuss how participants described the community went about managing these behaviors. These are labeled "Gamesmanship", "Different Platforms, Different Protocols", and "Being an Asshole".

Gamesmanship

Gamesmanship is defined as the art or practice of winning a game by dubious means without violating game rules (Down_to_the_wire, 2013; Rowney, 2009). Instances of players intending to annoy, distract, or *take a stab* at the opposing team appeared frequently in stories told by interviewees and resonated with own experiences. WillyWonka[10], a middle-aged, white, male player who switched factions from the Enlightened (known as faction changing) a number of months before this study, demonstrated gamesmanship within *Ingress* when a local player on the opposing team (in this case, before he faction changed) attacked a portal he owned. His initial reaction was to recharge the portal's defensive energy so it would be harder for the attacking player to capture the portal; as he recounts, "45 minutes. 546 bursters[11]" later (which is a lot of bursters), the attacking player stopped. Though not required to respond to or acknowledge the portal attack, he noted he "sent [the opposing player] in comms, I'm like, 'Why'd you give up *now?*'" WillyWonka admitted that he wanted to hear the player ran out of bursters and *that* was why they stopped, but when the response of "'Well, I decided this was probably not the most useful' er 'the best use of my gear,'" WillyWonka "had to respond back, 'And it took you 45 minutes to figure that out?'" WillyWonka described this as "a little bit of trolling" because of the jab at the end—not malicious in any way, but intended nonetheless to provoke the other player.

Intentional provocations like this are not limited to verbal jabs; they can take the form of physical and often elaborately-staged actions in the hybrid spaces of the game.

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[10] For confidentiality reasons, all names of players (participants or mentioned) have been changed.
[11] Bursters: In-game weapon used to destroy opposing team's resonators claiming portals

RAMGuard (white, middle-aged, male and an early beta player) recounted an experience in which he and five other players staged an operation involving an actual helicopter ride. The helicopter operation enabled RAMGuard and his colleagues to access portals in a public park that had been captured by the opposing faction (Enlightened) the last day before the park closed for the winter; chartering a helicopter, taking to the skies and closing the portals from above meant that they were able to shut down otherwise inaccessible portals, thereby denying opposing players the status of "guardian[12]". The helicopter riders refused to talk about the incident afterwards, deciding (according to RAMGuard) "that the best response to any inquiry was to deny everything". Chartering a helicopter allowed the players to take out the portals without trespassing (which is against the game's Terms of Service), but raised speculation of GPS spoofing, in which a GPS is tricked into reading counterfeit signals. RAMGuard and his co-players filed the flight plan and operation details to prove they were not cheating.

What made this event an instance of "gamesmanship" is not so much the lengths these players went to in order to shut down otherwise inaccessible portals, but their decision to stay silent about how they pulled off the operation, refusing to divulge to their opponents how they captured seemingly inaccessible portals while taking steps to prove to the game's administrators that no cheating or violation of the Terms of Service was involved. This silence was deliberately intended to demoralize and taunt opponents. The event remains a

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[12] in-game badge for keeping a portal under control for 150 days

memorable one within this player community, with other interviewees remarking on it; RAMGuard remembers the day as "one of our most effective trolls of the other team."

The last example comes from Fuzzytail (white, thirties, male and an early beta player) when he, RAMGuard, and two other players captured a hard to reach portal in an old factory with poor GPS signal within the structure. The four held onto the portal for months and used it as a primary site to form links and fields (known as an anchor portal). No Enlightened player could destroy the portal, possibly due to the hassle and poor GPS reception. After the group created a large field from that portal that stayed active for 4 days, Fuzzytail admits that "we pissed the Enlightened off…they actually got [the portal] removed."

Catching portals in hard to reach locations is a relatively common practice for operations, particularly for players attempting to obtain a Guardian Badge, but no portal is theoretically safe from assaults that come from the air. *Ingress* does not take into account elevation when using GPS. So, a portal that is otherwise inaccessible on foot, becomes accessible from the air. Aerial crafts do not break any rules, for the person playing is in the location their GPS claims them to be; but it can be a frustration for players seeking to keep portals intact that they thought were safe. Additionally, aerial crafts, like helicopters and planes, are not accessible to the average player, so resources become a key factor in giving some players advantages to perform certain actions. These portals are most often used strategically to craft long links and large fields, yet this becomes trolling when links and large fields are used for the sole reason of inhibiting others' play. Within *Ingress*, links between portals cannot cross and cannot be made under a field. The only way to remove them is to destroy the portal thus making hard to reach portals a prime location for use. The

purposeful placement of links or fields to cause confusion or prevention of play incorporates a level of gamesmanship that disrupts the spirit of the game without violating game rules (Myers, 2008).

Overall, Gamesmanship causes more frustration in terms of gameplay and is a less severe form of disruption to the game. However, what makes this theme important is that normal actions within the game can be purposefully performed to cause disruption. Out of reach portals have been used to block others from linking two or more portals together while players use their own resources to prevent other players from reaching in-game achievements.

Different Platforms, Different Protocols

The second theme I identify relates to a kind of discordance between experienced *Ingress* players and players who are new to the game but who bring with them extensive experience from conventional online video games – and who may carry with them the expectation that they will likely never physically meet other players. As all interviewees pointed out, *Ingress* is inherently a social game. Insofar as players may primarily interact with each other through their game 'handles' via smartphone, *Ingress* shares some similarities with the forms of sociality in traditional online games. As Fuzzytail points out, however, *Ingress* has one big difference:

> *there are people out there that are going to say nasty things and do nasty*
>
> *things just to get a rise out of you so they can laugh. That's trolling. The*
>
> *difference between being behind a screen and talking to a person you will*

never meet and being behind a cell phone screen and out in the real world is

you will run into these people.

Ingress is not played in front of a stationary monitor but in a hybrid space within a bar, at a local park, in a museum, or even on a bus route (de Souza e Silva, 2006). The chance of meeting a player face to face increases exponentially within *Ingress* than on stationary console games played within a home.

Many participants found that players with a background in console gaming tended to use provocative statements like "'Come over here, and I'll kick your ass'" (as recounted by Jumbalausage). Jumbalausage (white, middle-aged, male veteran player) explained that such comments are common, as "About every other month there's [an Enlightened player] that will try to bait me with something." GothamKnight (white, late-thirties, male who was a beta player) considered reaction to comm messages and various styles of conversation and play also "depends on how old you are, where you are in your life, and how you - how much you *have* social media in your life" saying that "if you don't have that experience you're not gonna understand it. You're gonna take it another way." Jumbalausage and L0ck3d0n (Native American, middle-aged, female veteran player) both suggested that, as seasoned players, they dismiss taunts and other forms of baiting, claiming "it's no fun for them [the taunters]" when "'I don't care.'" But players who are unfamiliar with the often toxic forms of communication in online console gaming, "don't really know how gamers talk to each other and how gamers interact…, so [they] take it…a different way than what person is meaning" (GothamKnight). L0ck3d0n, DarthObvious, WillyWonka, and Crims0nv0rt3x all noted that *Ingress* players tend to mellow out with experience. DarthObvious (white, older, male beta

player) explained he was far more aggressive, "smack talking," when first starting out but has since quelled his responses. To him, *Ingress* "is not that kind of game" and "you can't talk to people like that"—the underlying understanding being that social interactions in *Ingress* are (or have the potential to be) more consequential, more 'real' than in conventional online gaming. With these verbal participants noting the wide range of players spanning ages "7 or even younger to…70", restricting 'smack talk' seems the safe avenue of choice.

WillyWonka (a white, older male and early beta player) and Crims0nV0rt3x (white, late-thirties, female veteran player) also recounted how newer players tend to be more paranoid than veteran players about the portals they capture. Crims0nv0rt3x and WillyWonka emphasized most newer players do not realize "you don't own a portal" and can get upset when faction member destroys their portal or angry when their portals are attacked by the opposing faction. However, Jumbalausage and L0ck3d0n insist that it is not only newer players who act this way, describing a veteran player who went "blasting in comms" due to fellow Resistance players destroying her portal during an operation. As it later turned out, the veteran player had conflicting life events influencing her game play, but the notion remains that while paranoia may be more pervasive with newer players, veterans are susceptible to violating the communicative norms of the game, too. L0ck3d0n agreed with Jumbalausage, saying she "considered that kind of trolling because it's, like, something that is really not necessary and it's kind of against what your team is trying to do."

Part of becoming an experienced (even expert) player is coming to a more robust understanding of the communicative protocols and etiquette of the specific gaming

community – including a recognition that what passes for 'normal' behavior on one platform (i.e., smack talk in conventional online games) may constitute trolling in another.

Being an Asshole

This theme was most prevalent in my interviews with players, and pertains to acts of purposeful antagonism, including both digital and physical stalking that can occur between *Ingress* players. As WillyWonka describes, "There will always be that one that can't get along, that can't behave. Causes problems." These more wanton forms of antagonism can be both verbal (operating within comms) and physical (pertaining to offline interactions between players). One player that five participants brought up in discussing instances of purposeful verbal antagonism was Ang3lGuid3. As Xikil (white, older male who was a late beta player) remarked, Ang3lG1d3 "[uses] very, I want to say *vulgar* terms towards the other team," and though "He seems to be better now,…there's times that he falls back into this." During the observation period, I witnessed the vulgarity of Ang3lGuid3's comm messages a few times but in minor amounts.

The more striking instances of deliberate antagonism participants described involved threats of physical violence. Other stories interviewees told me involved players engaging in physical forms of aggression that bordered on violence and/or criminality. The Enlightened player, HyGlide, blocked the car of three Resistance players and "then tried to pick a fight with Ang3lGuid3." HyGlide appeared again when Xikil explained that "I confronted an individual for, uh, breaking the rules of the game: taking a picture" and emphasized "freely [admitting] that I made a mistake, of grabbing the phone." Xikil "didn't touch the individual,

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but grabbed the phone" for which HyGlide "turned around and pulled a gun on me." This was likely the most extreme case of purposeful aggression of any participant, but it did introduce a "shadier side of what happens with *Ingress*" (WillyWonka).

Due to the *Ingress* showing real-time updates on events occurring within the game (captures, destructions, links, fields), those who play near one another tend to learn each other's habits and favorite portals quickly. In addition, the *Ingress* main website has an intel map (https://www.ingress.com/intel) players can log into to view portals around the world through a similar interface of Google Maps. In the early years of *Ingress,* a group of players put together a secondary map known as IITC that mimics the Intel Map but includes additional features designed to assist the player with designing linking and fielding operations. WillyWonka explained that players have created programs to scrape information from the logs running through the Intel Map and IITC to search for specific player activity, anomalous player activity, and for changes in portal statistics that do not show up on the logs. WillyWonka confirmed "there was definitely basically some digital stalking happening for a long time" but as *Ingress* expands in number of portals and players, the data becomes harder to manage.

Fuzzytail further clarified this discussion on "lateral" surveillance (Andrejevic, 2002) in *Ingress*, "one of the defining lines in the game that most people agree on is, you don't follow the player." He detailed how players figure out what cars other players drive and have the capability of following other players from portal to portal. I have heard many stories of this happening over my time as a player, but Fuzzytail explains while he has done this to interrupt operations going on, "this becomes a problem when that person starts to feel

freaked out and then tries to go home." As ThoughtPower (black, younger adult, male who was an early beta player) explains, "That's stalking" and he could "understand why a lot of people say, 'Alright, I can't play this game'."

As these examples of physical harassment, stalking and surveillance indicate, *Ingress* expands and intensifies the reach of trolling beyond conventional online games. The hybrid nature of *Ingress* allows for players to piece together a substantial amount of information about other local players – their mobility habits, contacts, and so on. WillyWonka explained that some players scrape game logs to purposefully gather this data and create programs to track players' actions, look for players out of their normal play area, or simply to find their portals for targeted assaults. Other players chose to perform acts over comms or in person which are aggressive and can be frightening enough to other players that they feel the need to call the police. These actions may be few in number and restricted to a handful of players, but as of now, there is little data on how to prevent these actions from occurring.

For those who choose to continue playing, all of the participants pointed out that their community uses a vetting process for prospective players, in which they meet players in person before they can join the more trusted groups. But is this enough to prevent purposeful aggressive behaviors or stalking of players through game-provided surveillance tools?

Managing Trolling

When discussing how to manage aggressive or troll-like behaviors, WillyWonka offered "some of it…is tolerable", but goes on to say that it is "more of the question of *intent*" of discerning conversations "intended to kind of evoke a response and get under their

skin or to throw them off their game" from more grave or threatening actions. Many participants pointed out the easiest ways of avoiding or preventing aggressive or retaliatory comm messages is to *not* use the comms. DarthObvious, after toning down his own comm traffic, "practiced restraint of tongue and pen" ignoring most comm messages directed at him unless the message could be easily distinguished as playful fun. Fuzzytail, L0ck3d0n, and Xikil noted similar responses to comm messages and how to deal with them. Xikil added that they use comms primarily for "emergency - if you need to get up with somebody quickly" but to otherwise use a more secure and private medium. In the event another player is "malicious towards you" (Xikil), Xikil and DarthObvious went into detail about a feature within comms that allows players to hide from their view incoming messages from blocked players. This is reminiscent of Binns (2012) where online magazines asked for volunteers to help monitor their forums. The difference in this case is that the volunteers organized themselves, created a manageable forum of their own choosing, and self-police while providing an avenue to freely converse.

When situations occur outside of ignoring messages or blocking comm messages, many participants noted veteran players reach out to disruptive players to talk out the problem or tell the disruptive player to stop. In some cases, the argument is over a misunderstanding, an event in the person's life that has bled into their reactions of the game, or the player is new and may not understand a specific social norms of the game. An example for a misunderstanding comes an observed event in the public comms. A confrontation between Resistance player, KhoasStryker, and Enlightened player, azurearchon, drew in numerous players both watching over public or actively participating in the conversation.

The event lasted over 4 hours, incorporated close to twenty different actively conversing players between the two factions (perhaps more), and did not come to an official close until the next morning.

Briefly, azurearchon captured numerous portals from KhoasStryker over what looked to be a long period of time. Due to how azurearchon's persistent captures and utilizing items considered rare to find within the game, KhoasStryker called azurearchon out for cheating by buying items. Many green players chimed in, in defense of their teammate but KhoasStryker persisted. Zeratul, possibly irate with KhoasStryker, eventually noted in All Comm that they would "target [KhoasStryker's] portals because you're making such ridiculous accusations." KhoasStryke must have read the comment wrong, for the player responded as if the threat was against their person instead of their in-game portals.

The conversation continued over the next few hours, involving comments from players on both sides trying to quell the situation or find out what happened in both the in-game comm and the Resistance, lower-level Slack groups. Overall, comments ranged from explanations of where the rare items might come from (other players, hoarding over a period of time, etc.) to pointing out various baiting techniques for reactions and how calling people out in comms may make the situation worse or fall for the baited response. In terms of in-game comms, the tone of the conversation changed dramatically after a previously quiet player, pratoria, said "Jesus Tapdancing Christ, if 'Who Gives A Fuck' was a stock, it'd be plummeting right now. Make like a constipated Elsa and let that shit go…" in All Comm. While pratoria received a warning of using foul language in the in-game communications

pane, this one comment appeared to motivate players involved, primarily azurearchon and KhoasStryker, into de-escalating the situation and logging off.

Something that stood out about the event above was that the disagreement exhausted itself after several hours. RAMGuard noted that with disagreements, "Rarely is anything resolved. People get tired of arguing and move on." That being said, efforts from players on both factions to quell the argument demonstrate an openness within this community to addressing problematic behaviors collectively (Binns, 2012). Similar collaboration between players from both factions occurred after the gun incident, mentioned earlier, as local leaders from both groups shared information in an effort to manage the situation. For this community, it seems that the greater risk in *Ingress* of negative consequences from trolling elicits greater care and co-operation among the community.

Lastly, the Resistance community intentionally structured their communication platforms to disseminate and validate information posted within the group channels (Fichman & Sanfilippo, 2014). The Slack channels are broken up into a tiered and leveled system (h0-h7). The more trusted the member is, the higher level they can access within the community (h1 being harder to access than h7). Every participant explained the community's "vetting process" for how players become trusted members of the community. Xikil explained that members within the trusted circle vote on newer members who reach specific levels and met a number of already trusted players. This vote is "basically vouching for your honor and your integrity. So if something happens…and [the player] does something against the rules or does something to betray the trust of the group, then I'm, at least in part, responsible for him being there" (Xikil).

Overall, participants explained numerous ways to manage disagreements and deviant behavior. The structure of the Slack group provides a level of self-policing by veteran players (Fichman & Sanfilippo, 2014), and players have been shown to be open to talking problems out (Binns, 2012). In the event an altercation occurs that threatens the physical and or mental well-being of a player, both factions sometimes come together to decide what to do. At the end of the day, the event may "usually exhaust themselves" (RAMGuard), but the efforts of the community to keep its local members safe and enjoying the game are clearly defined.

Discussion

Thus far, academic research on disruptive behaviors online have examined individual platforms and, moreover, have not yet considered *mobile* platforms. With *Ingress*, play requires mobility and often multiple communication platforms. *Ingress* incorporates elements of social media, mobile media and gaming which this community utilizes to communicate and play with one another. As such, platform-specific notions of acceptable behavior may clash, particularly as LBMGs and ARGs do not offer the degree of anonymity (or impunity) of traditional online games. Players who come to *Ingress* with expertise and enculturation in conventional online gaming encounter drastically different protocols around a game which exists both digitally and physically.

Hybrid Spaces and Risk

Suler and Phillips (1998) argued that whatever happens online, stays online; in the same year, however, Dibbell's account of a "rape in cyberspace" (1998) demonstrated that

online harassment has immediate and visceral consequences. Most often, however, disruptive

and harassing behavior in traditional online media and games does not pose physical risk to

players; when *Grand Theft Auto* players use their cars to block others from exiting an area, or

when they point guns at each others' avatars, it is understood that the harm done is limited to

the game. Only in extreme cases are players physically threatened or hurt. As many of my

accounts of player experience demonstrate, the hybrid space of *Ingress* can amplify and

intensify disruptive behaviors, putting victims at risk of emotional and psychological but also

physical distress.

How to manage and prevent disruptive behaviors is becoming a considerable concern

for many gaming and social media companies. For example, Kou and Nardi (2013) examine

how Riot Games, developer of the highly-popular multiplayer online game *League of*

Legends, has begun addressing toxic behaviors between players. As Kou and Nardi explain,

Riot has implemented an in-game system (the "Tribunal" system) that provides players with

tools to monitor, report on and adjudicate other players' behavior, following broader patterns

of self-management outlined by Andrejevic (2002). The southeastern community of *Ingress*

players featured in this study have devised policing strategies through their vetting system. In

some cases, players called the local law enforcement rather than reporting to Niantic Labs

about misconduct of other players. Accounts from across the global *Ingress* community

suggest that instances of players seeking police assistance, while rare, are not anomalous;

they often accompany stories of players following each other, blocking each others' cars, and

purposefully hitting other players' cars (see Foster, 2012; Hernandez, 2015; Humphries,

2015). Given that numerous instances of physical distress and harm related to *Ingress* play

have been reported globally, Niantic seems to be lax in its approach to addressing disruptive

behavior – particularly when compared to the actions taken by companies such as Riot, and

the management of games with relatively less risk.

Surveillance and Google's Use of Data

While already established that *Ingress* provides hybrid spaces of play, it is important

to note that scholars have looked into how Google may be using the data its players create.

Hulsey and Reeves (2015) describe *Ingress* as a way to "gather capitalizable data about

consumption habits" mainly on pedestrian mobility (p. 3). Hybrid spaces of LBMGs appear

to be perfect locations to gather pedestrian and consumer behaviors, for pervasive games,

LBMGs, and even ARGs exist in a limbo between localized and digital cultures, and

incorporate the Internet into private spaces (Montola, 2009; de Souza e Silva, 2006). Licoppe

(2010) expands on this, addressing the ways LBMG publishers (in this case, Google) gather

location-based data– as do players themselves, as my participants alluded to, scraping game

logs for their own data mining efforts. But from what this study showed, the predominate

form of *Ingress* mobility in the area of study appears to be vehicular, suggesting that

Google's apparent goal of harnessing *Ingress* data to better model pedestrian mobilities is

complicated by the forms of mobility favored by specific communities – in this case, cars.

Trolling: A Moving Target

During interviews and observations, each participant of a rather homogenous group

had a different idea of what trolling looked like and where the lines are between

gamesmanship and something darker. Some participants focused on personalities, others on

play styles, and still others on the language players use in the in-game chat services. There was no singular set of agreed-upon criteria, even within this small, relatively tight-knit group, for distinguishing trolling from simply *having a little fun*. Based upon this and the multiple definitions of trolling behaviors from past scholars (Suler & Phillips, 1998; Dibbell, 1998, Hardaker, 2010; Binns, 2012; Fichman & Sanfilippo, 2015), notions of what constitute trolling appear to be particular not just to communities and platforms but also to individual interpretation. The only agreement between all participants was in how to manage the behaviors.

Definitions of harassing, toxic, or disruptive behaviors could vary based on geographic location, local or regional culture, or even through individual media usage. Perhaps the focus, then, should be on understanding the conditions specific to particular communities that influence how they define and manage acceptable behavior. Every geographic location has written (and unwritten) notions of acceptable behaviors. This study explored one community's conception of acceptable behavior and how it's managed, but there are many different areas – local, regional, and country-wide, that could be studied within the increasingly popular global platform known as *Ingress*. Each of these may have unique takes on what is deemed acceptable or inappropriate.

Conclusion

While trolling behaviors themselves may not be "*acceptable*", as WillyWonka explains, there is "some of it that is tolerable…but I think it's more of the question of *intent*." Through

observations of in-game communications panes and player made community forums over Slack and Google+, this study looked to fill a gap in current research concerning how trolling behaviors are defined and managed by the veteran players of a Southeastern United States community within *Ingress*. Every participant within this community noted that trolling behaviors take on various forms. I grouped the forms of trolling participants described into "gamesmanship", "different platform; different protocol", and simply "being an asshole" as well as looked at how the community managed disruptive behaviors.

To conduct this study, I utilized Burrell's (2009) expansion of Marcus' (1995) multi-sited ethnography; I interviewed 11 veteran participants and observed in-game chat services and the player-created Slack messaging board. My study was participant-driven; I took an *apprentice* style approach and, while questions were drawn up ahead of time, the information participants gave drove the direction of this study. However, being a member of this community in good standing meant that I had a level of trust with participants prior to undertaking the study; this, together with my offer to share (anonymized) insights from the study with participants, helped ensure that participants could divulge their perspectives, experiences and information on their communicative practices that they may not have otherwise shared.

To expand upon multi-cited ethnography, I discovered Hine's (2007) *connective ethnography* held importance with its reminder to hang on to data even if it not immediately recognized as relevant. Hine's (2007) aim of putting "specific uses of information and communication technologies into meaningful practices for participants to engage in" coincided with the primary use of communication technologies within this *Ingress*

community (p. 620). As such, I found it very useful to temporarily bracket my own understandings of the game and to maintain a capacity for surprise. Taking the time to explore the offline and the online spaces individually as well as simultaneously at game meetups or while participants are playing are essential for understanding the entire picture that global LBMGs paint for their participants.

These games do not exist in just the digital or the physical. They occur in both the digital *and* the physical simultaneously. Events will occur in one space that affect the other and vice versa. As such, as ethnographers, it is important to manage both at the same time. Burrell (2009) explains the need to find an entrance rather than a site, to consider multiple types of networks players may use, and to watch the language used which may lead to connections between different sites. Hine (2007) reminds us to reflect and accept surprises if and when they occur. I recommend doing both and to keep not only reflections, perceptions, and responses, but timestamps, too, because it is too easy to miss an important detail or infer incorrectly within a hybrid location coinciding digital and physical spaces.

The limitations of this study pertain to time, depth of study, and diversity among participants' experience as *Ingress* players. "*[Knowing] when and where to stop*" (Burrell, 2009 p. 194) became an important aspect to keep into consideration. If possible, I would have attempted to observe more than just the local Resistance community, but, due to the limitations of a university-based study for a Master's thesis and being a longstanding member of the local Resistance community, I could not engage the Enlightened community as a method of comparison or affirmation. Additionally, I would have like to take the time for more stories and individual definitions of disruptive behavior. The participants were all

veteran players in and around a large city and were a relatively homogenous group. Future

studies may seek to include case studies of newer players, less active players, and a more

diverse cast of races, sex, and locale. In addition, researchers may want to bring in more of

the physical game alongside the communication technologies by going on ride-alongs with

participants, attending game meetups with participants, or attending sponsored events[13] such

as *Ingress* anomalies, First Saturdays, or the newly added Mission Days.

While it does not pertain to the study of disruptive behavior, many participants noted

the similarities between *Ingress* play and forms of work, including but not limited to

planning for anomalies and First Saturday events. Future studies may wish to examine the

forms of labor that go into organizing game events and managing player communities –

especially considering that the tool this community uses, Slack, is a project management tool

used in the creative and IT industries. Likewise, I encountered stories of players who wrote

complex computer programs to assist in the surveillance of opposing players.

For players or designers of LBMGs and ARGs seeking more information about this

study's findings and how to help manage disruptive play within more mobile games, all

information is being compiled for the moderators of this southeastern community or any

other communities who wish to see this information to better the flow of communication and

community forums as well as to show what areas may need to be addressed within the

community. Game designers may be able to use this information as a learning experience of

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[13] *Ingress* sponsored events range in location and rule of play. Anomalies and Mission Days are large-scale events which bring players from around the world to a single city for recorded play in attempts to gain points for the player's faction. In total, the faction with the highest points wins that location and/or the overall event cycle. First Saturdays are more local/regional and are usually set up to help teach newer players how to play *Ingress*.

how this community manages disruptive or trolling behaviors and later compare these findings to other communities. If future studies show similar findings, perhaps these strategies can be implemented into upcoming games, like a more child and family oriented *PokémonGO*. Additionally, it may be beneficial for designers to take note of data gathering purposes for other applications or programs.

Every major example of disruptive play (excluding the helicopter event) involved *driving* in some fashion – whether it be capturing portals from within a car, blocking cars with other vehicles, or following players through various towns or counties. Past research describes Google's possibility of gathering data to improve pedestrian navigation (Hulsey & Reeves, 2015), but this study depicts a community much more reliant on cars than on pedestrian mobility. While the site of study is not as metropolitan as, say, New York City, USA or Tokyo, Japan where walking may be more of a norm, a question remains about what Google thinks *informationally* it is getting from the communities who play this game. If this one site of play is predominately vehicular-based travel, how does this compare to other sites of play which may provide information based on pedestrian mobility?

To conclude, future studies may wish to continue compiling more case studies in other areas of the global *Ingress* game, possibly between both factions, and much more. Global LBMGs with AR cross overs are gaining attention by game designers and players. More academic research would be beneficial to compile data on how work becomes play, trolling/disruptive play varies based on individual or community opinion, and much more.

Bibliography

Andrejevic, M. (2002). The work of watching one another: Lateral surveillance, risk, and governance. *Surveillance & Society*, *2*(4).

Binns, A. (2012). DON'T FEED THE TROLLS!. *Journalism Practice*, *6*(4), 547-562. doi:10.1080/17512786.2011.648988

Burrell, J. (2009). The field site as a network: A strategy for locating ethnographic research. *Field Methods*.

Chess, S. (2014). Augmented regionalism: Ingress as geomediated gaming narrative. *Information, Communication & Society*, *17*(9), 1105-1117.

Dewey, C. (2014, October 14). The only guide to Gamergate you will ever need to read. Retrieved April 07, 2016, from https://www.washingtonpost.com/news/the-intersect/wp/2014/10/14/the-only-guide-to-gamergate-you-will-ever-need-to-read/

Dibbell, J. (1998). *My tiny life: Crime and passion in a virtual world*. Julian Dibbell.

Donath, J. S. (1999). Identity and deception in the virtual community. *Communities in cyberspace*, *1996*, 29-59.

Down_to_the_wire. (2013, January 28). Gamesmanship vs Sportsmanship. Retrieved April 18, 2016, from https://michaeledwards89.wordpress.com/2013/01/28/gamesmanship-vs-sportsmanship/

de Souza e Silva, A. D. S. (2006). From cyber to hybrid mobile technologies as interfaces of hybrid spaces. *Space and culture*, *9*(3), 261-278.

Economist, The. (2014, March 10). What doxxing is, and why it matters. Retrieved April 07, 2016, from http://www.economist.com/blogs/economist-explains/2014/03/economist-explains-9

Eveleth, R. (2015, July 17). How to Deter Doxxing. Retrieved April 08, 2016, from http://niemanreports.org/articles/how-to-deter-doxxing/

Fagone, J. (2015, November 28). The Serial Swatter. Retrieved April 08, 2016, from http://www.nytimes.com/2015/11/29/magazine/the-serial-swatter.html?_r=0

Fichman, P., & Sanfilippo, M. R. (2015). The Bad Boys and Girls of Cyberspace How Gender and Context Impact Perception of and Reaction to Trolling. *Social science computer review*, *33*(2), 163-180.

Foster, C. (2012, December 11). Augmented Reality Game Gets Player Busted: The First Of Many? - ReadWrite. Retrieved April 20, 2016, from http://readwrite.com/2012/12/11/augmented-reality-game-gets-player-arrested-the-first-of-many/

Gogol, B. (2014, August 30). 15 Year Old Who "SWATTED" Gamer Convicted Of Domestic Terrorism; 25 Years To Life In Federal Prison. Retrieved April 08, 2016, from http://nationalreport.net/15-year-old-swatted-domestic-terrorism/

Grubb, Jeff. "Ingress Developer Niantic Labs Is No Longer a Google Company following Alphabet shakeup." *VentureBeat*. 12 Aug. 2015. Web. 12 Apr. 2016.

Hardaker, C. (2010). Trolling in asynchronous computer-mediated communication: From user discussions to academic definitions. *Journal Of Politeness Research: Language, Behavior, Culture*, *6*(2), 215-242. doi:10.1515/JPLR.2010.011

Hernandez, A. (2015, June 24). How Safe Are You Playing Ingress? - Techaeris. Retrieved

    April 20, 2016, from http://techaeris.com/2015/06/24/editorial-how-safe-are-you-

    playing-ingress/

Hine, C. (2007), Connective Ethnography for the Exploration of e-Science. Journal of

    Computer-Mediated Communication, 12: 618–634. doi: 10.1111/j.1083-

    6101.2007.00341.x

Hulsey, N., & Reeves, J. (2014). The gift that keeps on giving: Google, Ingress, and the gift

    of surveillance. *Surveillance & Society*, *12*(3), 389.

Kohn, S. (2015, June 29). I Got Doxxed So You Don't Have To. Retrieved April 07, 2016,

    from http://www.thedailybeast.com/articles/2015/06/29/i-got-doxxed-so-you-don-t-

    have-to.html

Kou, Y., & Nardi, B. (2013). Regulating anti-social behavior on the Internet: The example of

    League of Legends.

Licoppe, C., & Inada, Y. (2010). Locative media and cultures of mediated proximity: the

    case of the Mogi game location-aware community. *Environment and Planning D:*

    Society and Space, *28*(4), 691-709.

MacDonald, S. N. (2014, August 29). Gaming vlogger Anita Sarkeesian is forced from home

    after receiving harrowing death threats. Retrieved April 07, 2016, from

    https://www.washingtonpost.com/news/morning-mix/wp/2014/08/29/gaming-

    vlogger-anita-sarkeesian-is-forced-from-home-after-receiving-harrowing-death-

    threats/

Majorek, M., & du Vall, M. (2015). Ingress An Example of a New Dimension in

    Entertainment. *Games and Culture*, 1555412015575833.

Mantilla, K. (2013). Gendertrolling: Misogyny adapts to new media. *Feminist Studies, 39*(2),

    563-570. Retrieved from

    http://search.proquest.com/docview/1650145996?accountid=12725

Myers, D. (2008). Play and punishment: The sad and curious case of Twixt. *Unpublished*

    manuscript, retrieved from: http://www. masscomm. loyno. edu/~ dmyers F, *99*.

Marcus, G. E. (1995). Ethnography in/of the world system: The emergence of multi-sited

    ethnography. *Annual review of anthropology*, 95-117.

Nadai, E., & Maeder, C. (2005, September). Fuzzy fields. Multi-sited ethnography in

    sociological research. In *Forum Qualitative Sozialforschung/Forum: Qualitative*

    Social Research (Vol. 6, No. 3).

Phillips, W. (2011). Meet the trolls. *Index On Censorship*, *40*(2), 68-76.

    doi:10.1177/0306422011409641

Rowney, J. (2009, July 13). The line between gamesmanship and cheating. Retrieved April

    18, 2016, from http://news.bbc.co.uk/2/hi/uk_news/magazine/8148183.stm

Schoenfeld, S. (2015, June 23). Man charged in UConn bomb threat swatting incident pleads

    guilty. Retrieved April 08, 2016, from http://fox61.com/2015/06/23/man-charged-in-

    uconn-bomb-threat-swatting-incident-pleads-guilty/

Scimeca, D. (2014, October 13). Indie developer mocks GamerGate, chased from home with

    rape and death threats. Retrieved April 07, 2016, from

    http://www.dailydot.com/geek/brianna-we-gamergate-threats/

Sheng, L. Y. (2013, October). Modelling learning from Ingress (Google's augmented reality social game). In *Educational Media (ICEM), 2013 IEEE 63rd Annual Conference International Council for* (pp. 1-8). IEEE.

Smith, Jack, IV. "Millions of People Around You Are Playing an Alternate Reality Game You Can't See." *Mic*. 28 May 2015. Web. 12 Apr. 2016.

Sottek, T. (2014, October 08). Stop supporting Gamergate. Retrieved April 07, 2016, from http://www.theverge.com/2014/10/8/6919179/stop-supporting-gamergate

Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & behavior*, *7*(3), 321-326.

Suler, J. R., & Phillips, W. L. (1998). The bad boys of cyberspace: Deviant behavior in a multimedia chat community. *CyberPsychology & Behavior*, *1*(3), 275-294.

Taylor, T. L. (2002). Living digitally: Embodiment in virtual worlds. In *The social life of avatars* (pp. 40-62). Springer London.

Totilo, S. (2014, October 11). Another Woman In Gaming Flees Home Following Death Threats. Retrieved April 07, 2016, from http://kotaku.com/another-woman-in-gaming-flees-home-following-death-thre-1645280338?utm_campaign=Socialflow_Kotaku_Twitter

Wittel, A. (2000, January). Ethnography on the move: From field to net to Internet. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 1, No. 1).