Social, Casual and Mobile Games

The Changing Gaming Landscape

Edited by Tama Leaver and Michele Willson

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For Henry, Tom and Rose. (T. L.)

For Ben and Asha. (M. W.)

The next generation of game players,
developers and, just maybe, researchers.

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Building on the inspirational papers at this event, and supplemented with a wider call for papers, we have drawn together an excellent range of contributions, including researchers at all stages of their career, across a number of countries and institutions, addressing a range of technologies, game genres, platforms and perspectives. We are very pleased with the final result and would like to thank all of the contributors for their chapters, their patience and their generosity as this collection has slowly taken its final form.

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1

Social networks, casual games and mobile devices: The shifting contexts of gamers and gaming

Tama Leaver and Michele Willson

hile the term 'gamer' probably evokes a particular image for many people - perhaps the stereotype of the nerdy white male teen playing on multiple screens in his parents' basement, wearing a headset and rarely seeing sunlight - the term has never been representative of all or even the majority of people who play video games (Shaw 2012). Indeed, the US-based Entertainment Software Rating Board have noted that the average age for video game players is not underage, but between eighteen and forty-nine years, with almost as many female players as there are male (Entertainment Software Rating Board 2015). The games industry has seen an increase in the number of women producing games as well, further challenging any singular stereotyping of gamers or game creators (Tomkinson and Harper 2015). Yet perhaps the biggest change in the gaming landscape is the increase in the range of devices and platforms on which games can be played. As online social networks such as Facebook facilitate social games played with a user's social network, and mobile devices such as phones and tablets mean almost anyone can take a suite of game apps wherever they go, games have become increasingly ubiquitous.

Mobile games, played on tablets and smartphones, mean that games are never further than arm's length. Train carriages are often filled with players pulling back digital slingshots and assailing bad piggies in *Angry Birds* or attempting to match rows of brightly coloured sweets with a satisfying pop in *Candy Crush Saga*. While only a minority do, games on mobile devices can also explicitly make use of geo-location information, at times bringing information about physical spaces and locations into the games themselves. Several chapters in this collection, for example, explore Google's locative game *Ingress*, which overlays the game onto the physical world through the mobile device's interface. As location-based games enter the mainstream, increasingly there is a push for them to find a sustainable business model. As geo-location information essentially provides a traceable and archivable record of exactly where someone is, real privacy concerns can emerge, with serious questions about privacy needing clear answers before the role of locative games in an app economy is clear (Leorke 2014).

One of the most immediately obvious challenges when talking about the contemporary gaming landscape is how to situate the types of games and game practices being enacted through this multiplicity of devices. Juul's (2010) seminal text, *A Casual Revolution*, identified a genre of games and, relatedly, game players, that were emerging, which were unlike the stereotypical gamer, who came from a wider demographic spectrum and often played in short bursts of time. Yet even these characteristics of casual game players quickly become problematic because experience shows that games designed to allow brief periods of play can also be compelling enough to be played in as long and focused a manner as many of the most hardcore games.

Similarly, debate and disagreement about what constitutes a game abound through the historical game literature. As new technologies have been introduced or new game genres have been developed, debates have opened up as to whether these should be considered games and whether those who play them can be considered to belong to the category of gamer. This difficulty is evident even in the shifting uses of the nomenclature of social, casual and/ or mobile games themselves. There is a lack of clarity evident at times that is suggestive of these difficulties between the understanding and use of the terms of social games - or social network games as they also called - and casual games, and between casual games and mobile games and so forth. Such a lack of clarity is productive as it raises critical questions as to how each category can be understood and defined, but it is problematic in terms of enabling concise and clear discussion. Ostensibly, it would seem that, at the time of writing, social (network) games can be understood almost as a subset of casual games, and that these games can be mobile also if playable on a mobile device (as many, though not all, are). However, mobile also indicates

a level of potential engagement with the surrounding environment and geolocation input that is unnecessary or not evident in much casual mobile play. Clearly these markers are purely indicative of general characteristics in a constantly moving and developing landscape of games, technologies and players. The same claims can be made about the categorization and labelling of the various game genres discussed in this collection.

One of the factors inhibiting the acceptance of social, casual and mobile games has been a level of cynicism about their design, not helped by the fact that some games companies were as cynical as the critics. Zynga, the company behind the iconic Farmville social game, have infamously touted that they were actually a metrics and analytics company that happened to make games as a way of generating big data about their players whom they could then analyse in order to determine the best way to encourage players to part with cash for virtual goods (Willson and Leaver 2015). This, in turn, added to the perception that players of Farmville were being duped into the experience rather than being 'real' game players. Zynga's close relationship with Facebook, and the many, many messages that users received inviting them to play Farmville by gifting everything from a golden egg to a smiling cow, similarly meant that social games for many people felt, for a period of time, perilously like spam. Data analytics aside, though, the popularity of social games indicates that they are much more than just the game mechanics - the experience of shared sociality facilitated by social games can often be at least as compelling for the players as the game setting itself (Willson 2015).

What is undeniable is that social, casual and mobile games in all of their forms are being adopted by increasing numbers of the population, being played in multiple locations and being incorporated in multifaceted ways into people's lives (Willson 2015). For example, MacCallum-Stewart (2014, 151) claims, 'Facebook and Android games have attracted more players than any other gaming genre to date . . .' and therefore 'Facebook and the app market for games represent a site of tension when defining the game community since they are very different to traditionalist configurations of the gamer . . .' This fact alone opens a range of new possibilities and questions from access to business models that call out for investigation.

This collection begins with *Part One: The (new?) gaming landscape*, which explores some of the difficulties with classifications and generalizations in relation to the categories of casual, social and mobile games. The authors here consistently argue that the binary offered by a hard distinction between casual versus hardcore games (or alternately as hardcore and other, whereby the hardcore category is the point of reference) is inaccurate and fails to accommodate the multiple nuances and variations of game design, gameplay and even of gamers themselves. They also strenuously criticize the common,

largely derogatory and dismissive characterizations of these 'new' game forms as less valuable, less serious and therefore less worthy of serious critical attention. Instead they suggest that this new gaming landscape embraces a wide range of game forms, understandings and design and play practices that need to be accommodated in any critical engagement.

One of the most commented-upon changes introduced into this gaming landscape is the adoption of free-to-play (F2P), or freemium, approaches as an increasingly dominant economic model. The emergence of this model alongside other production changes are often pointed out as indicative of the less desirable elements of these new games, again contributing to the sense of social, casual and mobile games being of a lower quality or value. However, these changes, along with changes in production practices, have also opened up the production field to a wider range of game developers. This section therefore includes consideration of a range of perspectives – from user, to developer, to game analysis – in order to position these games as enmeshed in a broad and complex ecology.

Lina Eklund's study of Swedish gamers, Who are the casual gamers? Gender tropes and tokenism in game culture, asks the question as to who plays casual games and suggests that players might not actually be those who have been often suggested in various game studies. In particular, she critiques the methodologies and approaches used in studies of gamers as problematic, including some of the bases for the distinctions drawn between hardcore and casual games as well as the way in which these appear to be entwined with assumptions about who plays in terms of gender. Her research suggests that the distinctions made between types of games on the basis of time spent are problematic, that casual games can also involve similar amounts of time, they are just consumed differently - something that accords partly with Juul's (2010) observations and is noted also in Keogh's chapter in this collection. However, more striking is the way in which gender and assumptions about play preferences appear to be misrepresented and entwined with descriptions and critiques of casual gameplay. Eklund points to token theory as one way of interpreting these results, arguing that the 'feminization' of casual games and its associated characterizations stems from an attempt by previously dominant gamer groups (predominantly male) to retain control and claims of expertise over game culture, game practices and understandings.

Brendan Keogh's chapter, Between aliens, hackers, and birds: Non-casual mobile games and casual game design, continues questioning the simple dichotomy drawn between hardcore and casual games through his discussion of non-casual mobile games – games played on mobile devices but games that fit within a more traditional games classification. He suggests that a more

useful way of understanding games and their design would be to focus on the varying modes of player attention demanded by different game mechanics as well as the devices upon which they are played (and their various affordances). Keogh reframes the ways in which casual games are viewed in terms of time and labour spent as less about the seriousness or frivolity of these games and more positively as incorporating flexibility into how time and labour are expended. He explores the modes of attention employed with these games, refocusing and reframing casual and hardcore games across a continuum of varying modes of attention in order to map a complex ecology of game design and game practice.

Whereas Eklund examines casual games through an examination of the players, and Keogh in part through the attributes of the games themselves, Laureline Chiapello's chapter, Casual gaming: The changing role of the designer, explores the definition and understanding of casual games through investigating the experiences and self-perceptions of game designers and their changing design practices as a result. Employing Schön's epistemology of practice as a conceptual framework, Chiapello develops two profiles: designer–agent and designer–gamer. Through a series of interviews and mapping against these profiles, Chiapello is able to uncover not only the tensions experienced by designers as a result of the derogatory perceptions and classificatory details of casual games that earlier contributors have detailed, but also the subtle shifts and changes that emerge as game design develops and practices are changed as a result.

Tom Phillips's chapter *Discussions with developers: F2P and the changing landscape of games business development* also draws attention to tensions evident in the industry but this time in relation to understanding what a true or good game is and the types of inferences drawn as a result of underlying economic models. Drawing on feedback from a workshop with game industry professionals, Phillips notes the huge appeal of the F2P model within the industry, with various strategies employed to maximize profit generation. These strategies include paying special attention to those the industry pejoratively refer to as 'whales': players willing to pay significant amounts of money in a F2P game to either progress the game or gain status. These strategies are contentious for some game designers opposed to the freemium strategies who view paid progress options within the game as itself a marketing strategy antithetical to good game design and play practices. This is a challenging position when games are part of a commercial industry that requires profit to continue.

From who plays and the problematizing of previous categorizations of gamers, of the games themselves, and also of the design and self-understanding of designers of games, the collection turns to questions

around the motivations for play. Why do so many people play these games and what is their appeal? The authors in *Part Two: Reasons to play* explore these questions in relation to particular types of social, casual and mobile games. Through interviews, analysis of game activity and consideration of the ways people play, they identify some of the reasons why these games are so popular – despite the sustained critiques that have been directed towards them. Unique game features are linked to motivations for play: family connectivity, exchange of affection, the possibilities of mobility for integration of gameplay within the everyday, and the generation of affective responses due to a range of game design features are among the considerations noted.

Kelly Boudreau and Mia Consalvo take a look at family play in their chapter, *The sociality of asynchronous gameplay: Social network games, dead-time and family bonding.* Social games – or as Boudreau and Consalvo refer to them, SNGs – have been critiqued for their instrumental, or indeed complete absence of any, sociality despite the fact that they are situated within and reliant upon a player's social network. Boudreau and Consalvo argue for a re-examination of the criteria used to evaluate these games, suggesting that there are some unique characteristics to SNGs that have been under-recognized and are important for the game's sociality and functionality. In particular, they explore the contribution of dead-time (periods between gameplay or while waiting for something to happen), the asynchronicity of SNG play, and the cross-platform and cross-game communication as design features of SNGs that offer important forms of maintaining connections with family and close friends in 'low-stake, leisurely and informal ways' without necessarily requiring direct engagement.

Lindsay Grace's chapter, Digital affection games: Cultural lens and critical reflection, investigates the genre of affection games as a unique subset of casual, social and mobile games. Affection games are those where acts of affection - hugs, kisses, flirting, sexual expression - are the currency exchanged and primary focus and means of game progression. Unlike online dating, which Grace suggests is more like a simulation of offline activities that involve complex and rich range of contexts and interactions, affection games are seemingly more transactional and limited, following very simple (often stereotypical) narratives or story lines and characters. Arguing that these are a unique game phenomenon, more akin to spin the bottle or adolescent teen games than dating or role-play simulations, Grace makes the point that these games have been subject to minimal research attention. Through a number of detailed surveys of web and mobile affection games, he catalogues not only the range of games and behaviours availed, but also suggests that their existence and uptake may provide useful insights into a range of cultural and social practices and values around issues of gender and also a desire for fantasy and the motivations/rationale behind these.

In a similar vein to Keogh's earlier discussion about varying modes of attention availed by games across various technologies, Larissa Hjorth and Ingrid Richardson's chapter, *Mobile games and ambient play*, argues that the affordances and experiences of mobile gameplay eradicates the notion of the magic circle. The concept of ambient play – play that is embedded within the everyday, is managed across multiple spaces and places, and across multiple modes of presence and attention – is offered in its place. Hjorth and Richardson's notions of co-presence, emplacement and ambient play are all advanced as a way of understanding how people playing mobile games navigate and situate their gameplay and their gameplay experiences in very specific but shifting experiences of place, space and presence in their everyday lives.

Fanny Ramirez's chapter, Affect and social value in freemium games, adopts a slightly more sinister tone as she critiques the ways in which the affective dimensions of casual game design, play practices and the common underpinning freemium economic model encourage players to compulsively play their games and to part with increasing amounts of time and money as a result. Using the games *Tap Fish* and *Candy Crush* as illustrative examples, Ramirez discusses the multifaceted ways in which the design elements and gameplay practices combine to induce and compel behaviour in an affective manner that raise questions about manipulation, addiction and transparency.

Part Three: Locative play focuses on locative play and on games and applications which typically utilize geo-location technologies in mobile devices. These games are centred on physical locations in the material world, which are interpreted, overlayed or engaged with via digital means. Stacy Blasiola, Miao Feng and Adrienne Massanari's chapter Riding in cars with strangers: A cross-cultural comparison of privacy and safety in Ingress examines the way that Google's augmented reality game (ARG) Ingress blends material and digital layers, creating new game experiences which also provoke new questions about collaboration, community and privacy. Meeting with teammates, spying on opposing teams or negotiating digital play in material locations with at times bewildered non-players, all take place as informatic and physical planes mesh during gameplay. Utilizing a survey of over 1,800 players globally and comparative interviews with Chinese and US-based players, the chapter explicates the complex ways that players navigate physical spaces, form communities and manage privacy as online pseudonyms are, at times, traded for face-to-face meetings and interactions. Far from happenstance, the research reveals many complex and thoughtful strategies that players employ to negotiate if and when they meet other players in the material world.

Erin Stark's *Playful places: Uncovering hidden heritage with Ingress* also examines *Ingress*, this time focusing on the way that the game makes

unfamiliar banal everyday spaces and new digital layers force players to view the physical realm with fresh eyes. Motivated by in-game achievements and competition, *Ingress* players engage with their everyday spaces as new hybrid digital–physical realms where the unseen or ignored can be given new prominence due to game requirements. Looking through the lens of heritage studies, Stark argues that *Ingress* players not only come to new understandings of physical locations that are traditionally considered heritage worthy, but that players also create their own sense of which physical spaces are worth drawing deeper attention to in the process of highlighting these as potential *Ingress* portals.

In Jamie Henthorn's chapter examining the way the game *Zombies, Run!* allows runners to renegotiate and rewrite the neighbourhoods they run in, she argues that 'zombies are interesting because they are the ultimate pedestrians, moving through spaces with complete disregard for city planning', a disregard facilitated by locative play. Following de Certeau, the design of streets and urban spaces are rewritten as runners flee from zombies, both encouraging them to run outdoors and lessening the boredom that can be part of running for fitness. Moreover, the unpredictable nature of the digital zombies can lead to new pathways and experiences of seemingly dull urban areas, augmenting spaces with digital narratives largely conveyed as auditory experiences.

In the chapter *The de-gamification of* Foursquare, Rowan Wilken looks at the evolution of one of the most recognizable locative media apps and asks why the company behind it ostensibly appears to be jettisoning the gamified elements – the badges, mayorships and points – just as gamification is gaining mainstream recognition as a marketing and advertising technique. Wilken argues that rather than removing the gamified elements, *Foursquare* are redeploying them in particular ways, situating the company as a platform rather than a game or a single app, and that the gamified elements persist but have largely been repositioned inside *Foursquare's* Swarm app while the core property has been rebuilt as a location recommendation engine. Wilken suggests that the game elements will remain to appeal to *Foursquare* superusers who originally found the badges and leaderboards appealing, but these elements will be secondary as the locative media layer and database becomes the company's most profitable and important element.

Mark Balnaves and Gary Madden's chapter is the first in *Part Four: New Markets*, focusing on the new marketplaces in which social, casual and mobile games circulate. They begin by tracing the history of games and gaming devices from the earliest dedicated gaming consoles in the 1970s through to the much wider array of technological platforms available today, of which mobile phones and tablets are currently the fastest growing segment. Each different platform facilitates particular revenue models, they argue, but with

the additional affordances of the Internet and the diversification of gaming devices, there is a much wider range of potential revenue streams for games of all sizes and types. Their chapter also highlights the substantial growth of mobile gaming in China, with potentially far greater growth still to come as more and more Chinese users gain access to the Internet, mobile devices and, subsequently, mobile and casual games. Balnaves and Madden end with the provocation that due to sheer size and scale the social, casual and mobile gaming markets may one day be the largest segment of the video game profitability, eclipsing even the big budget Triple-A games.

In Angry Birds as a social network market, Tama Leaver analyses the success of the iconic Angry Birds games from Finnish company Rovio. He argues that the success of game apps can be understood by viewing them as part of a social network market wherein the value and success of the games is, in large part, due to the attention and recommendations received in online social networks. Leaver suggests that game developers not only have to create compelling games, but also actively engage with players and fans on social media. Success in this arena can also allow existing game apps to promote newer ones, harnessing the power of recommendation. Games designed with this interaction in mind can also lead to alternate revenue streams such as merchandising and licensed products, the value of which can potentially be greater than the usually quite small charge, if there is one at all, for the games themselves. He ultimately argues that Angry Birds is not only very successfully part of a social network market but that Rovio have, in fact, harnessed the dynamics of social network markets within the suite of Angry Birds games.

David Nieborg's chapter examines the prevalent myth that the app economy and the vast number of mobile devices have radically changed the games industry from a symbiotic relationship between big hardware developers and large games studios to one where the comparatively few resources needed mean that small companies and even individuals can access an app-based games market to huge success. Rather, applying a political economy model, Nieborg uses the example of Apple's App Store to demonstrate the increasing concentration of visibility and success among a tiny fraction of the developers offering games in the App Store. The challenge of network effects and getting the attention for new entrants in a vastly populated app ecology mean that already dominant players are evident and at an obvious advantage. While there are still examples of tiny developers achieving great success, such as the infamous *Flappy Bird*, Neiborg argues these will be fewer and further apart as the app market coheres and, in this context, 'the role of Apple in the value network is all encompassing and pervasive'.

Opening Part Five: Cheating, gambling and addiction, César Albarrán-Torres's chapter, Social casino apps and digital media practices: New

paradigms of consumption, examines mobile and social gambling and casino apps which offer the experience of specific games of chance but, due to restrictions in many jurisdictions including Australia and the United States, do not involve the actual exchange of money. Instead, success is recognized in these apps in terms of leaderboards and other rewards, including social kudos and credibility of various kinds. Significantly, social casino and gambling apps have become the target of anti-gambling campaigns in Australia, with interest groups and government departments arguing that these can serve as a gateway to more serious gambling at a later time, despite no direct evidence existing that one leads to the other. That said, Albarrán-Torres does acknowledge that by 'simulating real wagering and establishing procedural connections to social networking sites and video games, social casino apps aid in the normalization of gambling-like procedures, bringing them closer to the realm of casual social gaming'. Social casino apps in which real money does not change hands do not unproblematically and directly create gamblers later in life, but the accessibility of these games on mobile devices, exposure to the mechanics of gambling as play, and situating this play socially, can, Albarrán-Torres argues, situate gambling in a more familiar and favourable liaht.

Marcus Carter and Staffan Björk's chapter on Candy Crush engages with the fact that during interviews a considerable number of players of this puzzle game consider the legal purchasing of additional lives and resources within the game to be a form of cheating, despite these in-app purchases being the main revenue model for King, the game's developer. They argue that cheating is most usefully conceptualized as a contextually understood 'rhetorical resource to delineate unacceptable play' rather than any formalist understanding, including gaining unfair advantage as this definition, too, is contextual. Notably, from their interviews, Carter and Björk discovered most players found technical strategies – such as altering the time on an iOS device to regenerate lives more quickly - was acceptable, but some found the purchasing of extra lives unacceptable, and all found purchasing extra powers unacceptable, despite being structurally part of the game's architecture (and King's main financial strategy). This finding reinforces the notion that cheating as an idea is highly contextual, and that whether personally motivated (to overcome the games' challenges) or socially motivated (to compete on high score boards with friends on social networks) matters a great deal as to what is seen as fair and acceptable play.

In the afterword's concluding chapter, *Reflections on the casual games market in a post-GamerGate world*, Adrienne Shaw and Shira Chess situate the often abusive backlash from certain hardcore gamers as a reaction against perceived attacks on their games and their sense of a gamer identity. Yet

Shaw and Chess point out that the number of people playing games has never matched the people who readily identify with the term 'gamer'. Indeed, as casual, social and mobile games have often been dismissed or diminished as the province of bored housewives, their increasing prominence in the video game market has nevertheless further illustrated that the term gamer is representative of fewer and fewer of the people who play games. They argue that: 'It is impossible to think about GamerGate without considering the possibility that it is the diversity of market in casual, social and mobile gaming that helped to facilitate the outrage embedded at the core of GamerGate. What once belonged to a community that was specific, specialized and lacking in diversity can now belong to nearly everyone.'

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PART ONE

The (new?) gaming landscape

Who are the casual gamers? Gender tropes and tokenism in game culture

Lina Eklund

igital gaming (henceforth, gaming) constitutes a still expanding activity. At present we know that the population of gamers is large and wideranging with an estimated 40-50 per cent of the Western population now engaged in digital games (e.g. Kallio, Kaipainen and Mäyrä 2007; Juul 2010). This extensive involvement is largely owing to what Juul (2010) dubbed A Casual Revolution. Owing to technological advances and a more mature industry, new games attract audiences previously unfamiliar with gaming. Yet, research on gaming often builds on self-selected samples picked by posting on websites aimed at gamers and/or by using snowball sampling (e.g. Griffiths, Davies and Chappell 2003; Quandt, Grueninger and Wimmer 2008; Juul 2010; de Schutter 2011). These targeted samples are often motivated by a desire to scrutinize specific groups or subsets of gamers. However, as the general body of gamers today are far from a small minority (Kallio, Kaipainen and Mäyrä 2007; Juul 2010) additional research using representative samples is needed. In other words, samples which allow us to make statistical generalizations about digital gaming in the general population. Therefore, this chapter reports on results from a study using data from a nationally representative

survey of over 2,611 Swedes, aged 12–100, dealing with computer, Internet and digital game practices. The chapter focuses on 'casual gaming', with the aim of investigating this gaming audience in detail, using a representative sample. The data is Swedish, yet results are of relevance for most Western contexts due to similarities in usage patterns of digital gaming in this region and, as Sweden is often considered a forerunner in relation to the spread of digital technology (Bilbao-Osorio, Dutta and Lanvin 2013), the research context can shed light on the expanding use of these technologies.

Growth of casual games

Here, the term digital game is used as a label for all types of games mediated by technology. Digital games are engaged with on a screen, they take electricity to run and, perhaps most important, the computer rather than the player upholds the rules (Juul 2005). The computer frees us from keeping track of what we can or cannot do; a move not permitted will simply not be allowed. From early arcade games such as *Space Invaders*, to modern online games such as *Star Wars—The Old Republic* built around the rich and intricate Star Wars universe, games have changed in form as well as gained in complexity as computers can maintain intricate fictional worlds. Yet, at the same time as digital gaming changed, so did those engaging with them, the gamers.

The history of digital games has been told in many ways over the years (and in reality it is rather histories, in plural, than history). The description below is one story among many and focuses on the dialectic interplay between technology and users; technological advances made more types of games available as well as more ways of playing them, which attracted new audiences. Yet at the same time demands by new and old users spurred developments as creators match market demands, resulting in an iterative process of expansion, adoption and development of games and technologies. For example, the growth and success of touch-based games played on tablets and smartphones followed individuals searching for ways to fully utilize their new touch technology.

The first commercial digital games were adult activities, as arcade games appeared in pubs (Williams 2006). As consoles became available for private use they were then marketed as family entertainment – available to play in the family home. However, after the video game market collapsed in 1983 the industry needed a new approach. When Japanese Nintendo released their Famicom console – the Nintendo Entertainment System (NES) in the West – they aimed their product at children, foremost boys, in order to find a

more secure audience. As Krotoski (2005) has shown, before this, the gaming industry aimed games at everyone – men and women, old and young alike.

This shift towards young men changed ideas about who the consumers of digital games were, and this strategy in production and marketing still prevails. During the 1980s and early 1990s, digital games were seen as boys' toys and game developers were/are almost solely men (Haddon 1988) leading to a marginalization of female users. Since then three major waves of social and technological changes can be identified that have impacted on the game audience. The following simplified exposé is not meant to give a complete background to gaming, but is rather meant to offer historical context.

In the mid-1990s the first 'pink games' wave hit the game industry in the wake of the very successful *Barbie Fashion Designer*. Game companies making games for girls cropped up, some aiming to make money by broadening the audience and some trying to encourage female gaming, arguing that it provided important technological knowledge (Beavis 2005; Hayes 2005). Pink games are still flourishing, although they have been heavily criticized for polarizing the market into girl and boy games and ignoring adult female gamers (Kafai et al. 2008). Gender stereotypes and female inclusion in game culture is still a controversial and hotly debated topic, as seen in the recent #GamerGate debacle. See the Afterword to this volume for a more detailed discussion by Shaw and Chess.

A second major shift also occurred in the 1990s with the spread and growth of the Internet and a whole new genre of games that could be played with others online. These online games allowed gamers to compete and collaborate in massive digital worlds. Online games attracted an older and more mixed user group (Griffiths, Davies and Chappell 2003) and some have argued that they also opened up the game medium further for women (Taylor 2006). Thus, research and user demographics of online gaming made us aware that digital gaming was not something only the young engaged in and that the game audience was growing up.

The third major change, referred to as *A Casual Revolution* (Juul 2010), gained momentum around 2005. Owing to technological advances and a more mature industry, digital games were being developed that attracted an audience previously unfamiliar with the medium, as well as gamers who had 'grown up' and started families of their own. Digital games played in web browsers became popular, as well as party games such as *Dance Dance Revolution*. In 2006 the Nintendo Wii, advertised as a family entertainment machine, was released, in a sense returning to the roots of consoles as family entertainment. Digital gaming today comprises more than the classical *Super Mario* or first-person shooter (FPS) games that often get to symbolize this medium. Facebook games, exercise games, smartphone and touchpad

games and much more are genres and platforms for digital games that have expanded the medium in an era where so many people have a range of technologies available to play games on.

Casual games and gamers

The term 'casual gaming' came about as digital games as well as users became more diverse and different designations came into use to contrast early digital gaming (hardcore) to what were perceived as new (casual) game types, genres and gamers. Dividing gamers into hardcore and casual is now one of the bases for understanding different types of games/ers both in academia and industry classification (Juul 2010). Casual games tend to have more positive fictions featuring no or cartoonish violence, require little previous knowledge of games, allow players to play in short bursts and practise excessive positive reinforcement of success (ibid.). Casual games are lighter, easier to play and flexible (Kultima 2009). In contrast, hardcore games are seen as heavier, featuring violence and dark themes and taking time to learn (Juul 2010).

The portrayal of game types is closely connected to preconceptions of who engages in these games. Casual gamers are often portrayed as female, especially in reports from the game industry (Kuittinen et al. 2007) and in news reports (e.g. Wolverton 2007; Calvin 2013; Enright 2013); and female gamers are seen as preferring casual game genres (Krotoski 2005). The term 'casual' is furthermore often used to describe a play style (Kuittinen et al. 2007) and this way of playing, with less time investment and dedication is often, both from the game community and industry, connected to female gamers (Juul 2010). Some have argued that casual genres demand less time investment and are easier to pick up and play, thereby making them more accessible to women who still take on the majority of unpaid labour in the West, resulting in more fragmented leisure time (Winn and Heeter 2009).

However, research has questioned this simple division into male and female gaming practices. Female gamers are a sizable part of the gaming demographic, yet excluded from mainstream gaming culture. Women are the 'others' in digital gaming, resulting in an image of female casual gamers and male hardcore gamers (Royse et al. 2007; Jenkins and Cassell 2008; Vanderhoef 2013). The casualization/feminization of gaming seems a pervasive ideology in digital games culture. The question is whether it holds up to scrutiny: does the ideology match actual practices of men and women? A question we turn to now.

Method and data

The study data is from the 2011 survey *Swedes and the Internet* (Findahl 2011), the annual Swedish contribution to the *World Internet Project*. The survey included a battery of questions related to social digital gaming, constructed by the author in collaboration with the organization responsible for the survey (.SE Trust). The simple random sample is representative based on age (from twelve years and up, the oldest respondent 100 years old), gender and residence, with 2,611 survey answers. While there is no information on response rates, each year approximately 700 individuals are new recruits because of dropouts from earlier years (WII 2010). In this year's sample, that would give a hypothetical external dropout rate of 26 per cent. Of respondents, an over-representation of individuals interested in the Internet is possible, as this is the survey focus. For study variables, attrition was not higher than 1 per cent. Listwise deletion was used for analysis. All survey questions are translated into English by the author.

The main variable is: 'Which of the following genres of digital games do you engage in?' People answering that they did at least occasionally engage in digital games were asked to pick all game genres relevant for them from a list. It is notoriously difficult to sort games into genres and there are no accepted standards (Mortensen 2009, 35–40). The fifteen chosen genres¹ were aimed at capturing as many types of games as possible and there may be some overlap as well as exclusions. The category 'casual puzzle games' was called 'casual games' in the survey but has been renamed here to avoid confusion with the overall analytical aim. To make up for any potential genres not listed, an 'other' category was added with a free text option. These were manually coded into corresponding genres when applicable. Some genres with few answers or which seemed improperly defined are excluded from the analyses.² Additional variables include gender, age and time spent on gaming. The data is analyzed using principal component analysis and measures of correlation with Pearson's R and Spearman's rank.³

Results

Results show that almost 43 per cent (n = 1,120) of Swedes between twelve and 100 years old play digital games. Most gamers are found in the young, adult- and middle-aged groups. In the group aged 80+ we find only nine gamers, four men and five women, engaging in a mix of traditional, adventure, learning, simulation and other games. Gamers have access to a range of

technologies in their home and all gamers, logically, had access to hardware that could be used to play games on.

Gamers were encouraged to pick all game genres they engage in and on average each gamer choose 2.5 game genres (mean 2.5; median 2). In total this gave about 2,800 measurement points. A principal component analysis was run on the different genres, aiming to see if certain genres 'belonged' together, that is if playing some genres make gamers more likely to also engage in other genres.

In the outcome of the analysis, displayed in Table 2.1, three separate categories crystallized. Category 1 consists of genres often considered more 'dedicated', massive multiplayer online (MMOs), strategy, FPS, roleplaying games (RPGs), adventure and (web) browser games which are often multiplayer, asynchronous games.

Social network games (SNGs), casual puzzles, point-n-click (PnC), party and racing/sports games all load together in category 2 (Table 2.1). These are genres often associated with 'casual' games, except perhaps sports and

Table 2.1 Principal component analysis of game genres (Varimax rotation) investigating internal structure to best explain variance in the data

Genres	1	2	3
Traditional			0.83
Social network		0.32	
Casual puzzle		0.56	
Point-n-click		0.53	
Party		0.72	
Racing/Sports		0.55	
Browser	0.38		
ММО	0.64		
Strategy	0.69		
FPS	0.63		
RPG	0.63		
Adventure	0.53		

racing games. Yet, we know that, at least for sports games, the audience is largely constructed of fans of that particular sport (Stein, Consalvo and Mitgutsch 2013); people play sports games because they are sports fans. Sports and racing games are generally easy to pick up, can be played in short bursts of time and contain close visual resemblance to their offline prototypes. The first two characteristics are shared with casual games in general and are likely why we find these genres together.

Traditional games, such as card games, are found in category 3 (Table 2.1); these games often come pre-installed on computers as free software and often have strong representational links to their analogue versions.

In the dedicated category 1, we find many large, costly productions, with browser games being the exception. Browser games, together with SNGs, are the lowest charged genres, thus less clearly belonging in their respective category. It is likely that these genres are less coherent, for example browser games contain many different types of games; moreover, SNGs require a social network account and might therefore have a selected audience not corresponding to other genres. While the casual and dedicated game categories could be interpreted as divided up by hardware, some genres defy this division (e.g. party games), suggesting that willingness to purchase hardware is not the crucial explanation why these games go together in people's consumption habits.

Who are the gamers?

While the following results focus on casual games, some comparisons with 'dedicated game genres' are made. Furthermore, traditional games are included in the analyses as these are elsewhere often counted as casual games (see for example IGDA 2006; Juul 2010; de Schutter 2011), although results here suggest they should be seen as two different game categories.

Of all gamers, 41 per cent engaged in traditional games (e.g. *Solitaire, Bridge*), 25 per cent in casual puzzle games (e.g. *Bejewelled, Angry Birds*), 25 per cent in sports and car-racing games (e.g. *Need for Speed, Mario Cart, FIFA*), 21 per cent in party games (e.g. *Singstar, Guitar Hero*), 16 per cent in SNGs (e.g. *Farmville*) and 11 per cent in PnC games (e.g. *Sam and Max, Agatha Christie*).

Figure 2.1 displays the time invested in different genres and it shows that up to five hours a week is the typical time investment on games in the casual category, even though higher levels of time use are represented. Traditional games are the genre on which the least amount of time is spent. On average, gamers invest more time on dedicated genres; however, MMOs stood out as a very time-demanding genre and have been represented separately (Figure 2.1).

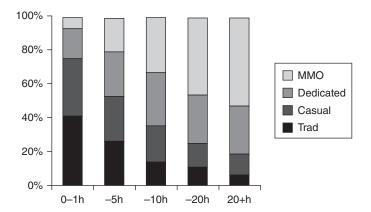


FIGURE 2.1 Displaying cross tabulations of genre and time spent on gaming per week.

While dedicated game genres seem to encourage a higher time investment, a not-insignificant time use does show for casual games (Figure 2.1). Looking at a separate cross tabulation for only the casual genres and time spent on gaming, we find that 27 per cent (data not shown) spend more than ten hours a week on average on games in this category. This supports previous research arguing that both casual and dedicated gamers can spend high amounts of time on gaming (Juul 2010), making time invested on gaming an unreliable proxy, at best, for dedication to digital gaming.

Analysing the gender spread of casual game genres as well as traditional games offers some interesting results. Figure 2.2 shows that women and men equally consist of around half of the audience of these genres, racing and sports games being the exception with women constituting around a quarter of the audience. This does not seem to be because women have less access to consoles; party games are also mostly console-based. However, considering the masculine connotations of both racing and sports and the marginalization of women in these genres, for example the lack of female teams in sports games, the percentage of women is surprisingly high.

For the other genres, casual puzzle, social network, traditional, party and PnC games, the audience comprises of roughly fifty–fifty men and women (Figure 2.2). When running correlation tests on gender and genre, only sports and racing games have a significant, albeit weak, effect; men are more likely to engage in sports and racing games (Spearman's rank = 0,23, sig, 0,000). Therefore, while these genres in general discussions as well as previous research are often talked about as female genres, in reality, when using a simple random sample instead of a self-selected sample, a relatively even gender spread emerges.

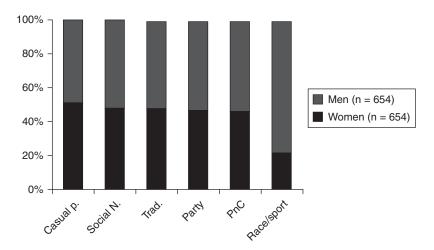


FIGURE 2.2 Cross tabulation of percentage of men and women engaged in different genres.

In contrast, dedicated game genres are more uneven, for example women constitute 32 per cent of the adventure game audience but only 10 per cent of the FPS audience and 12 per cent of the MMO audience. This number includes all MMOs and it is possible that there is variation between different MMOs. MMOs are a genre that due to the social intensive gameplay, are often considered popular among women. However, as more people in total play FPS there are actually more women playing FPS games than MMOs. The perception of MMOs as female-friendly compared to the 'traditional masculine topics' such as war and combat in FPS games seem to hide the actual popularity of these genres.

Figure 2.3 displays the distribution of gamers in each age group, which are shown separately as percentage of that age group. These statistics should therefore not be looked upon as absolute numbers as these groups are not equally large in society and it is important to note that these numbers include only those who play games and are not representative of these age demographics as a whole. What we can read from the figure is the popularity of different genres in different age groups of gamers.

Results show that the oldest gamers prefer traditional games, although all casual genres are represented. In the young-, adult- and middle-aged group we see a more even spread of game genres, suggesting that gaming is more established in these groups. Moreover, genres such as PnC have a relatively even usage patterns, traditional games sees a steady increase over age, and SNG use peak for 30–50-year olds (Figure 2.3).

Testing for correlations, using Pearson's R, between age and game genre, a few genres display age variance, although the effects are very small. Gamers

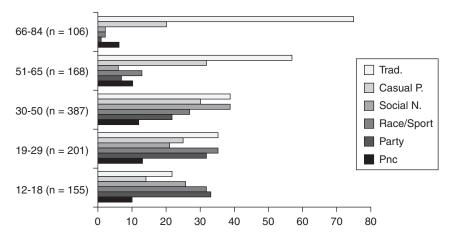


FIGURE 2.3 Percentage of gamers (X-axis) in each age group (Y-axis) who engage in different genres.

of traditional games are older (Pearson's R = 0.28, sig. 0.000), compared to gamers who do not engage in this genre, while party gamers (Pearson's R = -0.27, sig. 0.000) are younger compared to gamers who do not play these games, and lastly the audience for racing and sports games is younger (Pearson's R = -0.25, sig. 0.000).

Discussion

The aim of this chapter was to explore, through a simple random sample, the casual game audience. A detailed picture emerged that sheds new light on this group. On the basis of peoples' gaming habits, game genres are clustered into three categories, named traditional, casual and dedicated.

Both console and computer games were found in the casual and dedicated category, suggesting access to hardware is not the crucial explanation. An additional conclusion that can be drawn is that having access to a console does not imply that people will try different genres. Sport and racing games, for example, clustered together with casual genres, suggesting that gamers engaging in these genres are more likely to play casual games than try dedicated genres. Traditional games, on the other hand, fall into a category of their own. An explanation is that even though this genre is so pervasive, played by 41 per cent of gamers, there is a group of mostly older gamers, who only play these types of games and no others, which sets them apart. These results should make us think about which genres are dubbed casual and dedicated in future studies, although the genre split used here is by no means final.

The results further showed that casual, traditional or dedicated game genres often did not predict time use of more than ten hours per week. The exception was MMO games which sported a much higher time investment. On the other hand, traditional games had the least time invested in them. While, as seen in Figure 2.1, dedicated genres in general showed slightly higher amounts of time use, casual genres were not far behind. These results, as previously argued (Juul 2010), indicate that time use is unreliable as an indicator of game dedication and should not be used to divide casual and dedicated gamers.

It is clear that the different casual genres and traditional games are varyingly popular in different age segments. PnC and sports/racing are more uncommon in the older age segments (51+). Individuals in these age groups grew up and entered their adult life well before the advance of digital gaming and in general tend to see computer technology more as work tools and less as play things, due to often having been introduced to computers via work (Facer et al. 2001). It is therefore likely that in the years to come, we will see an increase in digital gaming in these age groups.

Party games, on the other hand, are closely tied to a specific social setting as they are primarily engaged in with others. We know that gaming with others is more common among younger gamers (Eklund 2014) and that this is connected to life stages – younger individuals in general spend more time with friends and in social situations outside work and family. In contrast to other genres, we are unlikely to see genres such as party games become more common among older gamers. Therefore, it can be argued that it is both a generation issue – some genres will spread to older groups as today's gamers grow older – and an age–stage effect – some genres are tied to a certain stage in life, are present. These should preferably be separated when studying digital gaming.

The rest of this discussion will concern the gender distribution of causal gamers. Quite contrary to many ideas about who engages in casual games, this study showed that men and women constitute an almost equal part of the audience. A theoretical understanding of why casual gaming is understood as a female gaming domain contrary to actual composition can be found in token theory. Female gamers, as the minority group entering a male-dominated culture, gain 'token' status. Research has found that as a token, group attributes blot out aspects such as personality or performance (Kanter 1977). In other words, female gamers are seen as women before gamers, while men are simply gamers. Tokens stand out and are noticed as 'others', individuals different from the dominating group, by both old and new members of the group.

Research on organizations has shown that sex ratios affect local cultures and therefore values and behaviours (Izraeli 1983). As a minority group enters

a new setting, such as women in gaming, the norms and culture of the majority group comes into question. Today it is generally agreed that there are women who game, yet by framing female gamers as casual gamers, that is not present in core gaming culture, the previously unquestioned culture can stand unhindered. Because they are different, female gamers are challenging the main group's norms and values which are built on similarity; by their very presence tokens upset balance. The division of digital games into casual and hardcore genres can then be understood as a strategy to protect the norms and values of the dominating culture against the intrusion of women and other minority groups – see, for example, the conflict surrounding the inclusion of homosexual characters in digital games (Condis 2014). Designating casual gaming as feminine 'protects' dedicated gaming, as it cordons it off from outside influence. Consequently, the tropes of women as casual gamers and men as hardcore hide the fact that the casual game category as well as traditional games are engaged in almost equally by men and women.

Conclusions

Analysis of a simple random survey sample showed that game genres in individuals' usage patterns clustered in three categories of games: traditional, casual and dedicated. Further analysis showed how most casual as well as traditional gaming was equally engaged in by both men and women, contrary to the dominating ideology which connect women with casual gaming and men with hardcore (Vanderhoef 2013).

With the rise of modernism, particularly in the late nineteenth century, the West saw the growth of mass culture. This 'new' culture was at the time designated as female, in opposition to high, authentic culture associated with men, who were also the only practitioners (Huyssen 1986). What can be learnt from history is how less valued culture became female and what was considered real became the domain of men, which is what we are seeing in contemporary game culture. Boundaries are enforced where authentic game culture is considered masculine and women involved in gaming are considered casuals – read mass culture gamers, of less value than real gamers. In this way high and low gaming culture are distinguished and threats to the norms and values of 'true' gaming culture kept at bay. The previous distinction of feminine mass culture and masculine authentic culture finally fell apart as women claimed and became part of the production of highbrow culture (Huyssen 1986), leading to the question of whether the struggle over gaming culture will only be over when women truly become part of game

development? In this context, #GamerGate clearly highlights the significance of the ongoing struggle to discredit women who are part of the production of games.

Women are currently the main target group for casual game developers (IGDA 2006); thus we have to wonder, are men playing despite the game? This is a reverse to the question often asked about dedicated female gamers. Turning our thinking on its head about gender opens up ways for considering gender and gaming where women are not always seen as the 'other' and men's gaming also take more complex forms. Likely, pervasive gendered tropes and hierarchies about 'high' and 'low' gaming culture hide male casual gamers in the same way they hide dedicated female gamers. Future studies should consider that there is likely larger in-group than between-group differences when studying men and women's gaming patterns, casual or dedicated.

Notes

- 1 Classical, social network, casual, web browser, party, strategy, point-andclick/puzzle, role-playing, first-person shooter, simulation, learning, racing and sports, adventure, massive multi-player online and other games.
- 2 Simulation was left out due to few answers. Learning games was left out as these games are played for other reasons than entertainment.
- **3** Both varies from +1 (a perfect positive relationship) to −1 (a perfect negative relationship). Anything between −0.21 and +0.21 are here considered too small to constitute a relationship.

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Between aliens, hackers and birds: Non-casual mobile games and casual game design

Brendan Keogh

The January 2012 issue of video game magazine *Edge* did not display a high-definition render of an upcoming blockbuster game on its cover. It simply showed the increasingly ubiquitous logo of technology company Apple, creators of the iPhone. 'Apple has changed the video game industry irrevocably' the corresponding feature starts. 'And the simple truth is that it has changed it without even really trying. It did it with a handheld device that has no buttons, no sticks and no ports for physical media, and it did it with a virtual storefront that was created, in the main, to revolutionize the way people bought music, not videogames' (*Edge* 2012, 77). As devices that traditionally brought together digital screens and buttons, that video games would appear on mobile phones in one fashion or another was inevitable. But it was not until the rise in popularity of the iPhone series and the parallel rise of casual games that mobile games began to be treated as 'legitimate' games – games worth paying attention to. This, as the *Edge* feature reports, was despite Apple's ambivalence towards gaming and the device's utter lack of buttons.

Smartphones such as Apple's iPhone and Samsung's Galaxy series have fostered homes to a broader and more eclectic ecology of video games than

any previous mobile or handheld device; from social to single-player games; high budget to amateur games; publicly to privately played games; blockbuster games that sell tens of millions to niche games that sell a few dozen. The iPhone alone is home to hundreds of thousands of games, each of which has to contest with the specific technological affordances and constraints of the iPhone – most significantly the lack of any tangible buttons – and the mobile practices of its users. To re-appropriate what Christian McCrea says of Nick Montfort and Ian Bogost's (2009) *Racing the Beam*, the games that are available for smartphones cannot help but be *expressive* of the smartphone (McCrea 2011, 390). Apple's iPhone did not try to accommodate video games, but video games quickly accommodated the iPhone.

Most visible – and profitable – of the games to appear on contemporary smartphone platforms are casual mobile games. Smartphones' incorporation of 'wearable' and touchable screens into the user's corporeal schema (Richardson 2005) and casual game design's focus on a flexibility around the player's everyday life (Juul 2010, 10) has created a powerful synergy between mobile media platforms and casual game design. Games such as Rovio's *Angry Birds* (2009), ZeptoLab's *Cut the Rope* (2010) and King's *Candy Crush Saga* (2012) combine the smartphone's intuitive gestural interface, low barrier of entry via digital distribution channels and persistent connection to online social networks to create a home on the smartphone for approachable and accessible casual games beyond the exclusive 'hardcore' games of console and PC platforms.

However, for as long as there has been smartphones, there has also been a healthy ecology of alternative and independent mobile games that resist easy categorization as 'casual' games. These games typically rely on indie or retro visual aesthetics and offer more traditionally twitchy challenges than casual games have come to be associated with. Yet, as mobile games, they still must fit into the player's everyday life and they must still take advantage of (or be constrained by) the gestural interfaces. While elsewhere I have detailed how writing on casual and mobile games set up casual game design in an antagonistic dichotomy with traditional game design (Keogh 2014), the peculiar cases of 'non-casual mobile games', however, provides a significant link between newer methods of casual and mobile game design and the more traditional and entrenched design of console and PC games. The differences between the two are well-established, but the similarities remain underappreciated.

It is these similarities this chapter is concerned with: it challenges the ingrained casual/hardcore dichotomy that tends to understand casual games antagonistically against traditional game design concerns (casual instead of hardcore, distracting instead of immersive, easy instead of challenging) to

instead situate mobile and casual game design within a broader spectrum of design concerned with different modes of player attention. This allows a more nuanced understanding of how casual and non-casual game design overlap with and influence the other in a fruitful and reflexive conversation.

This chapter will first critique the notion of 'casual' and the typical casual/ hardcore dichotomy, with a particular focus on the question of attention that usually dismisses casual games as distracting in contrast to the 'full immersion' of traditional hardcore games. I instead argue that different games demand different modes of attention from the player, which require different forms of embodiment of the actual and virtual worlds of play. This will transition into a discussion of the smartphone as gaming platform - what it affords and what it restricts - to appreciate how it has become a home for casual games and how non-casual mobile games must still be casual in some ways due to the forms of attention demanded by mobile devices. From here, my analysis turns to look closely at two particular non-casual mobile games: Michael Brough's 868-Hack (2013) and Action Button's Ziggurat (2012). These two critically acclaimed but unarquably niche mobile games fulfil many of Juul's criteria for casual game design (2010, 30-55) but resist easy categorization as casual games through their inaccessible difficulty and visual aesthetics. Close analysis of the aesthetic pleasures and challenges afforded by these games as mobile games will allow a more complex, heterogenous understanding of mobile game design beyond the more commercially visible casual games often taken as the whole of the mobile game ecology. Ultimately, I will demonstrate that 'casual' is not a hermeneutic category sealed off from traditional concerns of game design, but is in an ongoing conversation with game design en large, influenced by and influencing video game design more broadly.

Paying attention to casual and mobile games

Video games designed to be played casually have existed for as long as video games have been commercially produced, but it was with the rise in popularity of Nintendo's Wii console in the mid-2000s and the parallel rise in smartphone and social network games (SNGs) that they became a focus of serious study in their own right. In contrast to the hardcore, genre- and challenge-driven games predominately marketed at teenage boys on both PC as well as the Xbox and PlayStation consoles, the casual games of the Wii seemed to welcome a much broader audience with its intuitive motion controls and the friendly visual aesthetics of games such as *Wii Sports* (Nintendo 2006). In his extensive look at the rise of casual games, *A Casual Revolution*, Juul notes that casual games are often positioned 'as a rejection of traditional hardcore

game design, with its gory themes and focus on technological capabilities' (2010, 25). Already, we see casual games defined primarily as what they are not: hardcore games. This positioning continues today in popular games discourse in a way that tends to centralize hardcore games as 'real' games and 'casual' games as mere distractions, played by people who are not 'real' gamers (Taylor 2012, 241).

Through extensive interviews with casual game players, Juul complicates the casual/hardcore dichotomy. Most importantly, he shows that casual game players are no less committed to the games they play than those of hardcore games; rather, they tend to play those games in shorter bursts rather than the long, uninterrupted sessions of hardcore games (2010, 30). Further, the common presumption that casual games must be 'easier' than hardcore games fails to hold up when Juul's surveys show that many casual players *do* want challenging games (2010, 41) and are just as likely to be disinterested in a game that is too easy as players of hardcore games (2010, 39–40).

Juul constructively highlights several key features of casual game design that – despite remaining in large part the opposite of hardcore game design – define casual games positively instead of just contrasted to what hardcore game design is not. Casual games tend to sport an inoffensive and 'nice' fiction; they are highly usable through an intuitive (often mimetic) interface such as motion or touch controls; they have a balanced difficulty that does not punish the player too harshly for failure and that increases as the player learns; they offer an excessive amount of audiovisual feedback; and, most importantly, they are interruptible (Juul 2010, 30–55). One simply has to look at any of the most successful casual games, such as Angry Birds (Figure 3.1) to see these features in play. The birds and pigs are rendered in vibrant, cartoon colours; the controls of using the touchscreen to stretch back and fire a slingshot are immediately understandable; failure only ever sets the player back to the beginning of the level they started thirty seconds earlier; the game constantly and automatically saves data and can be interrupted at a moment's notice. The overarching principle of these features is that, combined, they work to capture a player's attention quickly but, importantly, just as quickly allow the player to redirect their attention away from the game.

Instead of placing casual and hardcore games at opposite ends of a barometer of quality, then, Juul allows us to constructively re-conceptualize casual games as those that are more flexible with the player's time (2010, 36) – those games that can be more easily incorporated *into* the player's everyday life rather than exist as an activity apart from it. While *World of Warcraft* (Blizzard 2004) might ask players to commit to an entire evening of raiding with their friends or *Final Fantasy VII* (Squaresoft 1997) might insist that you keep playing until you reach the next save point or *Dark Souls* (from



FIGURE 3.1 Rovio's Angry Birds presents an inoffensive and accessible visual aesthetic indicative of normative casual game design.

2009) insists you die twenty more times before you learn the basics of combat, a casual game can be picked up and put aside with a moment's notice – or, they can even be played *while doing* other things. Says Juul: 'a casual game is sufficiently flexible to be played with a hardcore time commitment, but a hardcore game is too inflexible to be played with a casual time commitment' (2010, 10).

Thus, we can constructively refocus the word 'casual' in a less derogatory way – since, as Taylor notes, the very term 'casual' often obscure the amount of real labour that players, especially women, commit to casual games (Taylor 2012, 241) – by understanding casual to mean less 'unserious' and more 'flexible'. Truly, this is what casual has always meant. A casual employee at a store may work just as many hours as the full-time staff with just as much effort, but they do so on a more flexible roster that incorporates their everyday life. It is thus less accurate to think of games as existing in a casual/ hardcore binary that inevitably puts casual games at the margins than it is to think of games on a spectrum of casual to non-casual forms of attention demanded of the player by the game.

These forms of attention closely relate to how mobile and social media practices have been fruitfully explored in terms of *co-presence* even before the rise of smartphones (Richardson 2005; Hjorth 2007, 370). Mobile media

allows us to be both 'here' and 'there' simultaneously, not only with our friends at the cafe, but also in a discussion with other friends on social media:

[T]he very condition of telepresence – as 'presence at a distance' – speaks of our capacity for ontic dispersion beyond the neat physical limits of the body, and our open-ness to the embodied distraction of televisual and telephonic spaces. (Richardson 2005)

Social and mobile media each afford a hybrid embodiment across virtual and actual worlds where the user maintains a sense of embodied presence in each – neither completely detached nor completely dominant. It is in this dual embodiment that we begin to see why casual and mobile games have such a close relationship, as many of the technological affordances of the smartphone that allow for co-presence are analogous to Juul's features of casual game design that afford flexible modes of attention from the player: devices incorporation into the user's everyday life and practices with intuitive touchscreens worn on and incorporated into the user's everyday corporeal schema (Richardson 2011; Richardson 2012, 144); persistent Internet connection and geolocation software; and an 'app' ecology of digital distribution that allows easy access to affordable software (Banks 2012, 162). The forms of attention demanded by mobile media and those insisted on by casual game design are analogous.

However, even in terms of 'attention', casual and mobile games' flexibility often sees them considered as 'distractions' compared to the supposedly more attentive demands of non-casual games. However, such a binary does not stand up to scrutiny. When I play Angry Birds, I am giving it my full attention as I try to find weak points in the flimsy structures. Yet it is true that, at the same time, I am paying attention to the real world around me, ready to tuck my phone away in a moment's notice when my train arrives at the station. For Richardson, the way the smartphone's screen is 'tangibly and contingently dependent on the hand's movement and dexterity' (2011, 424) points to different forms of embodied immersion possible specifically through mobile games. Rather than 'distracting' as opposed to 'immersive', then, casual and mobile games instead demand a precarious balance of co-attentiveness where the player is fully aware of the entire actual-virtual assemblage that is their hybrid embodiment across worlds that all games demand: consciously aware of both the virtual world beyond the screen and a corporeal engagement with and around that screen. As I elaborate elsewhere (Keogh 2014), distraction and immersion are not opposite ends of a spectrum: to be immersed in a game is to be distracted by that game. Casual and mobile games with their required flexibility require a hybrid, co-attentiveness from the player.

However, various researchers have shown that mobile media is also often engaged with in far more traditional, private modes in addition to their co-present, public modes. Chan, for instance, draws from various studies to show that in Japan the home has become a 'significant static locale for mobile gaming' (2008, 21). Richardson, meanwhile, in her fruitful discussion of smartphone technology and gaming through a phenomenological framework, makes the observation that the corporeal attachments demanded of mobile gaming through touchscreen and motion-sensing devices 'can, at times, demand a non-casual multi-sensory engagement' (2011, 423) that she suggests is akin to the 'stickiness' of console games previously conceptualized by Chesher (2004). While the forms of attention available to mobile media are intimately related to those demanded of casual games, studies such as these suggest that mobile media affords a broader spectrum of attentions than just those most commonly affiliated with everyday, public practices. And, by extension, the games that exist on such devices encompass a broader spectrum than just casual games. It's to two such non-casual mobile games that this chapter now turns.

Hackers and users

This tension between non-casual game design and the forms of attention demanded of mobile devices can be seen in the works of game designer Michael Brough. Brough has released various experimental and obscure puzzle and local multiplayer (played by two people on a single touchscreen device) games on the iPhone and iPad, including *Corrypt* (2012), *Zaga-33* (2012) and *Glitch Tank* (2012). While each has been a critical success with established game critics and developers, none have established a broader audience beyond core, independent game devotees. Game designer Jonathan Blow holds Brough's visual style responsible for this niche-ness (Blow 2013). Where casual games present an inoffensive, cartoony aesthetic, Brough's games harness an evocative and dark retro style that is more often described as 'ugly' (Rigney 2013). Instead of immediate accessibility, Bough's games focus on inaccessibility: demanding that the player takes the time to understand them.

This is in stark contrast to how Apple envisions the relationship between user and iPhone or iPad. Burgess shows how the iPhone as a platform embraces a transparency of usability over a transparency of hackability (2012, 40):

Whereas for the hackers, transparency meant visibility and openness at all levels of hardware and code so that users might learn and fully master the computer, 'user-friendly' interface design principles redefined transparency

to mean the invisibility of all technological layers [. . .] so that there was nothing standing between the will of the user and the task for which he or she wishes to use the computer. (Burgess 2012, 33)

This usability, reflected in Apple marketing campaigns that tote their products as devices that 'just work' (Burgess 2012, 37), runs parallel with the usability demanded of casual games; they should be immediately understandable and 'transparent' to the players.

Brough, however, is more concerned with the transparency – and intimacy – of hacking. Ryerson has aptly described Brough's games as 'like stepping inside of a machine that has existed for a very long time before you ever entered into it' (2013). In interviews, Brough discusses his desire for his games to be something people have to learn, as a way of evoking 'that feeling of being at a low level, feeling close to the way computers work' (in Rigney 2013, 1). This is perhaps most true of his iOS game 868-Hack (2013), a dense and difficult cyberpunkthemed game explicitly about hacking into a computer system. (Figure 3.2) On a grid-like board, the player navigates their avatar towards an exit while siphoning skills and resources from surrounding squares and simultaneously

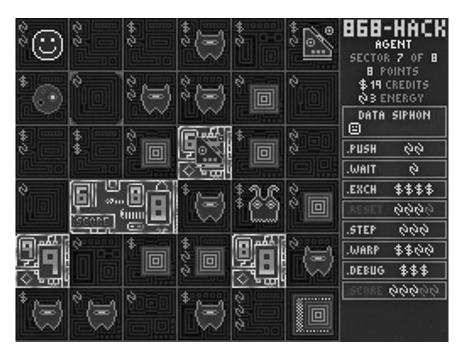


FIGURE 3.2 Michael Brough's 868-Hack's visual aesthetic is not immediately welcoming or comprehendible the way most casual mobile games strive to be.

predicting and avoiding the advances of various enemies. As a 'rogue-like' game – following in the genre of excessively difficult and punishing games birthed by *Rogue* (Toy and Wichman 1980) and popularized in recent years by games such as *FTL* (Subset 2012), *The Binding of Isaac* (McMillen and Himsl 2011) and *Spelunky* (Yu 2009) – understanding how the game functions and should be engaged with is a long struggle that demands the player's patience and commitment. *868-Hack*'s challenges cannot be memorized and quickly repeated. Rather, it procedurally generates levels that are different in every game from an underlying algorithm. To successfully navigate these unique challenges, the player must rely on what they have learned about the game's systems from past experiences. Rather than an immediate accessibility, *868-Hack* demands that the player learns how to play by playing. Unlike Apple's devices, *868-Hack* does not 'just work'.

868-Hack can hardly be considered a casual game. Yet, there remain clear parallels between the design of 868-Hack and the concerns of casual games, brought around predominately by 868-Hack's existence on a mobile device. While the game's systems and mechanics remain confronting and intimidating to a new player, interfacing with the game via the touchscreen is intuitive and simple: the player simply swipes a finger in the direction they want the avatar to move and tap buttons on the edge of the screen to execute various abilities. Further, the game's turn-based pacing means the game only ever progresses at the player's instigation. Turn-based combat has long existed within the rogue-like genre, and this helps to afford the co-attentiveness demanded of mobile games as the 868-Hack player is just as likely to be distracted by the real world as the Angry Birds player. Meanwhile, the unforgiving harshness of the rogue-like genre means, counterintuitively, a single game can be quite short and thus suits a casual, flexible mode of play.

In a personal correspondence, Brough called attention to the physical dimensions of the iPad as being well-suited for the kinds of games he makes (Brough 2014a) and, ironically, the uniformity of the iOS software setup as partial reasons for his decision to release many of his games on the iPhone and iPad platforms (Brough 2014b). Brough made a conscious design decision to make 868-Hack for these mobile devices, even as he made design decisions directly opposed to dominant casual and mobile game design. Yet, through its turn-based pacing and the brevity of a single game through the heightened difficulty level, 868-Hack still requires and allows similar forms of attention as casual mobile games. Like most non-casual mobile games, then, 868-Hack still maintains some relationship with the concerns of casual game design simply by conforming to the mobile platform.

The end of the universe

While the games of Michael Brough might share design aesthetics with casual games through the affordances and constraints of the smartphone platform, Action Button's Ziggurat is a non-casual mobile game for the iPhone in explicit dialog with casual game design – in particular, with Angry Birds. Designer Tim Rogers wrote on gaming website Kotaku how his initial idea for Ziggurat first came to him when he played Angry Birds and found himself frustrated with the turn-based pacing:

I wanted a 'driving range'. I wanted stuff to be falling down constantly, and I'm over here at this crazy distance, slinging birds at it. I imagined a game wherein a hero is against a wall at the end of a long tunnel. Enemies are coming at him . . . So you use slingshot controls to fire these forsome-reason-very-slow-moving bullets at these bats. You have to sit there and watch the bullets approach the targets. You have no limit to bullets you can shoot. Depending on your firing angle, you can sacrifice speed for accuracy. Speed knocks the bats back further. You're just – keeping a bunch of bats back (Rogers 2012).

Rogers continues that a year later he saw someone playing one of the later *Angry Birds* on the train, playing the game in a decidedly non-casual way, which I explore elsewhere (Keogh 2014): 'he flung a bird; he let it fly for two seconds; he made a little sound in his nose; he tapped "pause"; he tapped "reset" (Rogers 2012). That people wanted to play *Angry Birds* in a persistent, non-casual way led Tim Rogers to the decidedly non-casual design of *Ziggurat*. (Figure 3.3)

In Ziggurat, the player takes on the role of the last human alive, standing atop a ziggurat as the alien robots that killed everyone else close in to end the human race. Much like Angry Birds, Ziggurat is about slinging projectiles on arcs. Instead of the bats that Rogers first envisioned, it is an endless army of robots that the player must confront. While Angry Birds allows the player to take an indefinite amount of time between each shot, the Ziggurat player must be firing constantly to contain the enclosing horde. To fire the gun, the player slides their finger across the bottom of the screen horizontally to determine the elevation of each shot. Holding on the far left-hand side of the screen aims down the left-hand slope. As the player slides their finger to the right, the character raises the rifle higher into the air, turns and aims down the right-hand slope of the ziggurat. Instead of Angry Birds's mimetic 'pulling back' input to control the power behind each shot, Ziggurat requires the player to hold their finger on the screen to start charging the shot and it fires once the

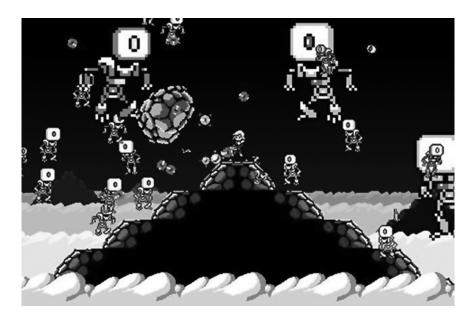


FIGURE 3.3 Action Button's Ziggurat demands the player's full attention through a persistent onslaught of enemies, unlike Angry Birds' turn-based gameplay.

player releases their finger. This complicates aiming as once the player starts aiming, the gun starts charging and the player must have the precise shot lined up in time to fire on precisely the velocity they intended.

Crucially, the shot is fully charged only for a split second before it depletes to a less powerful stage. If the player wants to fire a fully charged shot, they must aim and fire on a very precise rhythm. Where *Angry Birds* allows the player to just 'play around' with one possible set of parabolas (the trajectory of the birds) to see what happens, *Ziggurat* is exclusively about pinpoint accuracy and paying careful attention to the interactions of a range of rhythms and parabolas at once: the gun's elevation, the shot's velocity, the direction of the enemies' jumps. If a single enemy or shot reaches the top of the ziggurat, the game is instantly over. While even *868-Hack* implements a turn-based structure that affords a simultaneous engagement with the real world while playing, the incessant and persistent approach of *Ziggurat*'s alien robots seems to actively reject co-attentiveness, demanding the player's undivided attention. *Ziggurat* does not even offer a pause button, stubbornly refusing the 'interruptibility' often demanded of both casual and mobile games.

Further, while casual games typically have inoffensive and 'nice' audiovisual aesthetics, Ziggurat is noticeably more gritty, with its pixelated visuals of reds, blacks and purples. The fictional framing of alien robots closing in to kill the last human alive is also more aligned with the violent shooters of home

consoles than the cartoon characters of most iPhone games. Despite both the genocidal and suicidal tendencies of *Angry Birds*'s protagonist poultry, they never seem less than comical in their endeavours. *Ziggurat*, meanwhile, works to evoke a sense of helplessness and urgency, much like early arcade games such as *Space Invaders* (Taito 1978) and *Missile Command* (Atari 1980). In *Ziggurat*, you will eventually die and humanity will fall; your only solace is how well you do before you fail.

Yet, despite all of this, it is not sufficient to simply call *Ziggurat* a hardcore game and leave it at that. *Ziggurat* is still a mobile game, created specifically with the iPhone in mind and, significantly, in direct conversation with one of the most successful casual mobile game franchises of all time. Much like *868-Hack*, its unforgiving difficulty allows it to be played in brief periods of time – a particularly long game might last five minutes – and the depth of its systems becomes apparent only over many repeated games. Games journalist Andy Corrigan goes so far as to call *Ziggurat* a casual game created for a hardcore audience:

Its intrinsic simplicity allows you to jump in and kill a few minutes for instant gratification, but delaying the inevitable failure that we come to deem as 'success' can only come from the long game, through understanding, practice and skill. The very elements that define a hardcore game. (Corrigan 2012)

Such an analysis depends on and perpetuates a casual/hardcore dichotomy that this article hopes to complicate, yet it also highlights how players conceive of *Ziggurat* as somewhere 'between' casual and non-casual design. While *Ziggurat* might seem like a non-casual game, then, it is one in direct dialogue with an exemplar of casual game design, allowing us to directly compare and contrast the modes of attention demanded of both casual and non-casual mobile games.

Conclusion

In late 2013, Vietnamese developer Dong Nguyen released a smartphone game called *Flappy Bird*. It was aggressively difficult, with games often lasting no more than ten seconds. It had a low-fi visual aesthetic heavily inspired by *Super Mario Bros*. (Nintendo 1985) and was a difficult game to play without giving it your full attention. The player takes on the role of a perpetually falling bird, tapping once to propel the bird forwards and upwards. With this one mechanic, the player has to carefully manoeuvre the bird through a persistent

series of pipes. A single bump and it is game over. Yet, despite its brutality, Flappy Bird's simplicity allowed it to become a blockbuster success while, at the same time, attracting much scorn from 'core' gamers and journalists (Kushner 2014; Schreier 2014). That such a difficult game could be so embraced by casual players and so rejected by core gamers highlights the problems with making clear distinctions between 'casual' and 'hardcore' games based solely on difficulty or aesthetic. Rather, the case of Flappy Bird, much like 868-Hack and Ziggurat, demonstrates the overlap and crossover between casual and non-casual game design, showing that neither can be completely distinguished from the other.

Through a close analysis of two particularly well-received yet very much niche non-casual mobile games, this chapter has drawn attention to this intricate relationship between casual and non-casual game design and has attempted to facilitate a better appreciation for the broader ecology of mobile games that exist beyond the most visible blockbuster casual games. Neither 868-Hack nor Ziggurat functions strictly as casual games. 868-Hack's inaccessibility demands patience and a willingness to learn, as opposed to an immediately accessible comprehension. Ziggurat's persistence, meanwhile, demands the player's full attention and endurance, offering not even a pause button to break up the action. Meanwhile, each game's unique visual aesthetic and fictional framing conflicts with the typical inoffensive and 'nice' style demanded of casual games.

Yet, despite these deliberate non-casual design decisions, as games designed for mobile platforms, each game still inherits various values of casual game design. 'A casual game is sufficiently flexible to be played with a hardcore time commitment, but a hardcore game is too inflexible to be played with a casual time commitment' (Juul 2010, 10); however, 868-Hack and Ziggurat are both flexible enough to be played with a casual time commitment. An entire game of each 868-Hack or Ziggurat can be played in a matter of minutes. While each presents complex systems or skills to master, the physical interface demanded of each is straightforward and intuitive, arguably still more accessible than any game on a console or PC that demands the player navigates three-dimensional space. Most significantly, then, these non-casual mobile games remain flexible, being easily incorporated into the player's everyday life as they can be quickly accessed, played and put away again in a couple of minutes, even if they each take many hours in total to fully appreciate. To consider either of these mobile games as 'simply' a hardcore game without considering its reflexive relationship with casual game design is to fail to fully appreciate it.

868-Hack and Ziggurat are but two examples of a broader ecology of mobile games beyond those squarely at the casual end of the spectrum. Other examples include Ridiculous Fishing (Vlambeer, Gage and Wohlwend

2013), *Eliss* (Thirion 2009), *Cool Pizza* (Secret Library 2012) and *iJumpman* (Run Hello 2010). By focusing on just two, however, this chapter has hopefully harnessed an appreciation for the intricate ways that casual and non-casual game designs interrelate, contrast and complement each other – especially on mobile devices. Instead of thinking of casual game design as antagonistically opposed to 'hardcore' game design, casual and non-casual are best considered as a spectrum of forms of attention, with many games falling somewhere in between.

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4

Casual gaming: The changing role of the designer

Laureline Chiapello

The original goal of the research presented in this chapter was to clarify and enhance different definitions of the term 'casual games' by drawing on the knowledge and experience of several game designers. The recording of these game designers' experience unveiled some noteworthy changes about their role in video game projects, their vision of game design practice and the difficulties they encounter in the industry. While results concerning the definition of 'casual games' have already been presented in a previous work (Chiapello 2013), this chapter offers the opportunity to further explore the changing role of game designers in the casual gaming era. The term 'casual revolution', originally coined by Jesper Juul to describe the 'new way for players and games to engage' (Juul 2009, 22), might also be relevant to describe the underlying transformations of practice experienced by game designers working on casual game projects.

The very nature of casual games remains unclear (IGDA 2006–13), though there have been several attempts at defining this type of game. A literature review explored the factors encompassing casual games, and this literature review revealed a clear evolution in the definition of casual games (Chiapello 2013). Early attempts were focused on specific aspects of the casual game phenomenon, namely games, players or playing (Kuittinen et al. 2007). However, definitions became progressively more complex. Specifically, the

focus shifted from a fragmented vision centred on gameplay, to a holistic one, including game culture and design values (Juul 2009; Kultima 2009; Kultima and Stenros 2010). The research presented in this chapter tries to expand on this latest development by including a new element in the equation: the knowledge of the casual game designers themselves. Some authors, such as Juul, did question game designers about the definition of casual games to enrich their work or confirm their analysis. But no study has considered game designers as the holders of a specific knowledge. To fill this gap, research for this chapter was designed to build knowledge with practitioners. Accordingly, it became possible to understand the world of casual game design from a new point of view. This chapter will present the findings related to the evolution of the designer's role in casual game projects.

First, this chapter will introduce the conceptual framework used: the epistemology of practice, as described by Donald Schön in his book *The Reflective Practitioner* (1983). After elaborating on the qualitative methodology, the results will be presented. They reveal that designers can frame their roles in two different ways: the designer–gamer and the designer–agent. The designer–agent role is a source of struggle for many designers and it indicates two major concerns for designers: first, that the designer's role is currently evolving, and second, that this change might signal a call for deeper reflection over the challenges faced by game designers in the video game industry.

An epistemology of practice: Designers as a source of knowledge

In his 1983 book, *The Reflective Practitioner*, Schön advocates for a new epistemology of practice. He criticizes the positivist epistemology of practice and the model of 'applied science' and proposes a new approach, where professional actions are a source of knowledge. First, this chapter will elaborate on this epistemology and the central concept of reflection-in-action and subsequently, it will explain the concept of 'role frames' (Schön 1983, 270), which will be used to analyse the designers' experiences.

Professional knowledge and reflection-in-action

The positivist epistemology of practice was dominant until the 1980s. In this model, a profession is mainly defined by its capacity to resolve problems using scientific knowledge produced by researchers, in universities. Thus,

this model implies a strong hierarchy, wherein the researchers and their fundamental knowledge are at the top of the pyramid. Beneath them are the professionals, who apply the researchers' knowledge to solve their problems. Thus, the ability with which professionals resolve these problems during practice is not taken into consideration (Schön 1983).

In the 1970s, professionals in the applied science model were in a very uncomfortable situation. They needed to develop specific abilities to overcome complex and indeterminate problems, but these professional abilities were not significant in the applied science model. Therefore, Schön advocated for abandoning the positivist model, and proposed another epistemology of practice. According to him, wisdom is gained through practice, and professionals have knowledge that allows them to act adequately in complex and unclear situations. 'Know-how' therefore lies in professionals' actions.

This kind of knowledge is tacit: the practitioner acts without even thinking about it. This is the same kind of knowledge we use when we recognize a face or when children make sentences without having formally studied grammar. However, sometimes, this tacit knowledge becomes more evident and easy to observe. For example, when faced with an unexpected event, the practitioner questions his/her actions. This is where the process of 'reflection-in-action' starts: 'As he tries to make sense of it, he also reflects on the understandings which he surfaces, criticizes, restructures, and embodies in further action' (Schön 1983, 50). The reflection-in-action model allows a new epistemology of practice, as the practitioner becomes a researcher: 'When someone reflects-in-action, he becomes a researcher in the practice context' (Schön 1983, 68). To summarize, Schön's model of the reflective practitioner considers professionals as actors with an ability to reflect on their practice. From this emerges knowledge, which can be used to create new theories.

Role framing as a factor in reflection-in-action

This study embraced Schön's epistemology of practice. More specifically, this chapter is focused on the designers' way of 'framing their role' (Schön 1983, 270). According to Schön, each profession has some 'constants'. Constants can be understood as the steady fundamental principles of a profession, and these might include the practitioner's favourite solutions, his/her value system or the theories he/she uses to conduct a reflective practice (Schön 1983). One of these constants are 'role frames', which refer to the fact that each professional has a way of defining (framing) his/her own role in an organization. The 'frame' thus impacts a practitioner's actions: 'Differences in role frame help to determine what knowledge is seen as useful in practice and what kinds of reflection are undertaken in action' (Schön 1983, 274). For

example, any profession sits within an institutional context, but the relationship with this context is not always clearly established. Schön gives the case of an engineer: does this professional only have to consider technical issues or does he/she have to take care of relationships with clients too? As Schön asks, what does the frame encompass?

'Role framing' might be a limiting factor to the reflection-in-action model. In Chapter 7, 'Town Planning: Limits to Reflection-in-action' (Schön 1983, 204), Schön describes the case of a town planner trapped in a self-inflicted role that is harmful for his reflection-in-action. Schön attributes the number 'I' to this model. In Model I, the practitioner wants to succeed in what he thinks are his tasks, no matter what, and is afraid of being 'punished' if he fails. Thus, he sees himself in a binary situation where he can only win or lose, and he obviously wants to avoid losing. His strategy to win consists of ignoring his feelings and motivations and trying to be remarkably rational. More generally, this model describes a situation in which the practitioner tries to control the task unilaterally and to 'protect' himself and other parties from possible harmful consequences, whether or not they actually exist. The practitioner is elusive about his decisions and decision-making processes, which he justifies under the guise of mastery.

On the contrary, Model II insists on information circulation, exposing personal motivations and having a globally open attitude. The practitioner tries to keep the other teammates in the loop so they can make informed decisions. As Schön explains, Model I might lead to misinterpreting the situation, while Model II is about revealing problems and dilemmas to enhance information circulation and favour reflection-in-action.

In the conclusion of his chapter, Schön claims that practitioners are often in intermediary roles 'between those who propose and those who dispose' (Schön 1983, 234), and these roles often lead to conflicting situations. By adopting Model II, the practitioner can prevent himself from adopting a restrictive role. But this is not an easy task, and Schön insists on the necessity of external help to 'help him see what he has worked to avoid seeing' (Schön 1983, 283).

Methodology

In analysing the role of game designers, one should acknowledge that the researcher 'must somehow gain an inside view of the experience of practice' (Schön 1983, 323). In order to understand the changing roles of game designers, a two-phased methodology was used in this study. Eight game designers from five different companies in the Montreal area participated. To

make their knowledge more explicit, a qualitative methodology inspired by phenomenology was used (Creswell 2007).

First, designers completed a sensitization booklet (an interactive PDF form). The notion of professional knowledge was introduced to participants. The booklet is an application of 'sensitization theory' and is considered a sensitizing tool, whose main objective 'is to establish self-reflection on the part of the participants, which is harvested during the generative sessions' (Visser et al. 2005). The booklet informed the participants of existing theory on casual games and provoked questions and reactions concerning their own experience.

Second, full-length semi-structured interviews (at least an hour each) were conducted with each participant. Interviews were focused on a casual game project where the participant was the main designer, and here they provided a post-mortem of their project (Goodman, Stolterman and Wakkary 2011). They were free to talk about any experience or aspect of the project that they judged relevant. They were prompted to remember unexpected situations or problems, and provide a detailed narrative of events.

Participants were chosen on the basis of having a high level of diversity inside the sample (Pires 1997). The participants had worked on projects for Nintendo Wii, Nintendo DS, Microsoft Kinect, Facebook, desktop games and browser games in Flash. Some were from large firms with publishing departments, while others came from medium-sized and small independent companies.

All interviews were fully transcribed and analysed. To ensure the reliability of interpretations, results were submitted to participants. Participants commented on the results, and their feedback was subsequently used to discard any misconceptions or misinterpretations of the data.

Frame analysis results: Two roles, the designer-gamer and the designer-agent

Schön's concept of role framing allows for categorizing participants' experiences working on a casual game project into two groups. One group is composed of designers who think that they have to create a high quality game that satisfies them and meets their own personal standards. If they like the game, then they expect that their audience will like it too. Thus, these practitioners are called 'designer-gamers'. They use their own value systems to evaluate game quality. The second group is composed of designers who see themselves as a 'proxy' or 'agent' that completes the request of a

principal, a commander (a producer, a client, etc.). They do not use their own value systems to evaluate the game, but the one that has been given to them by the commander.

Table 4.1 summarizes the two profiles (designer–gamer and designer–agent). A representative participant was chosen for each group and some of their quotes are used to point out the similarities and differences between the profiles.

Both types of designers have a common understanding of what makes a good game: something fun, entertaining. However, their *vision* of the project is different. The designer–agent is the representative who acts on behalf of the players and not himself. For example, Participant 3 said that he is the 'agent of fun', and that he has to 'reach an audience'. When each type of designer evaluates his/her work, the difference is significant: the designer–gamer seems totally satisfied, while the designer–agent feels a tension between his own values and those of the commander. He does meet the external imposed criteria, but he is not entirely pleased, because his own value system is not reflected in the game he made. Participant 3 added that his team was not suited for the job; they needed to be more skilled in the casual game domain. Perhaps the fact that he sees himself as an agent 'clipped his wings' so to speak.

The restricted worldview of the designer-agent seems to be associated with the casual gaming revolution. The designer does not make a game for himself anymore or for an audience with similar taste to his, but rather for a heterogeneous group of players. When asked if they liked the game they made, designers of the second group were prompted to explain this dichotomy

Table 4.1	TWO	designer	roles
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	Designer–gamer (Participant 5)	Designer–agent (Participant 3)
Values, appreciative system	'A good game is fun'	'The main goal of a game is to be entertaining'
Goal of the project	'Make a new game, as the previous game project is complete.'	'Complete the objective, the order.' 'Make a game for an audience.'
Evaluation of the project	'We choose casual games because they fit well with the team. We stop only when we are satisfied with the game.'	'We met the objective, but we could have done so much better. We need more expertise.'

between the designer–agent and his/her audience. Participant 8 explains: 'Do I like the game I made? Of course! But, well, as a gamer, I will never play it. But I am proud of the result'. Participants 1 and 3 concurred on the existence of this gap. This 'lost link' between designers and gamers has been underlined by Juul (2009): 'Hardcore developers make games for themselves ("I like that – let's put it in"), whereas casual developers make games for themselves and everybody else ("I like that but let's make sure it works for my dad/sister/receptionist too")' (Juul 2009, 76). Our results complement Juul's: first, some casual game designers continue to develop games for themselves – designer–gamers still exist and this fact should not be ignored. Second, with regards to the designer–agent role, Juul did not point out the consequences that this lost connection with the audience could have on design practice.

A role often overlooked

The first dimension of the role of casual game designers that is worth highlighting is the negative perception that often persists among the designers. The negative dimensions of casual game design have not been adequately addressed in the video game literature. However, it may be argued that a slightly negative view of this type of game emanates from the lack of extensive research on casual game culture (Consalvo 2009) in favour of economic studies (Kuittinen et al. 2007), which reduce the game to a simple commodity. My participants, however, were emphatic about this negative dimension of casual game projects in the industry. Participant 3 stated: 'I don't have much experience in the field, and casual games were a way to make money. A small game, some little but fun mechanics, you put it in a box . . . PROFIT!' In this participant's initial vision, making casual games did not seem to require any particular abilities. Participant 8 went even further, explaining that working on a casual game project could have some negative effects inside his company, where casual project designers were denigrated by their colleagues, who were working on more 'hardcore' assignments.

It is important to note, however, that the initial simplistic vision of those two participants was challenged while working on the game. Each explained that making casual games was difficult, and required true expertise. As Participant 3 stressed: 'You need to do it seriously, you need reflection, you cannot proclaim yourself a casual game designer that easily.' Participant 8 showed that the designers who first thought that it was easy soon realized that it was not as 'stupid' as it sounded. This devaluation of the designer's role in casual game design can greatly influence design practice. Indeed, it can provoke self-restraining practices, which will be described as a 'restrictive role'.

A restrictive role

When a designer is in the designer-agent role, he/she can feel torn between his/ her own values and the project values, and ethical problems may arise. In Table 4.1, we saw that Participant 3's values conflicted with the project's criteria. The fact that the designer admitted that he met the objectives, but was not satisfied with its results, shows that he possesses design abilities, but was limited by his 'agent' position. He did not ask for more time to develop his skills or for more money, because these demands did not seem within reach. Participant 7, who has also played the designer-agent role, exposed a similar situation where his abilities were hindered by his intermediary position at his company. All the people on his team were men, but they were making a game specifically aimed at women. They made the game with their 'gut feelings' because they were not given the chance to work with their audience. This made Participant 7 feel uncomfortable, because he thought that his team should have tried to understand its audience, in order to best create a kind of game experience for women, instead of copying mechanics that worked in other games. In his view, this is not only unethical, but also very risky. The game might be a total failure. What is more, Participant 7 explained that he was not given enough time or money to do his casual game project, and he could not ask for more because this would fall outside his 'frame'.

As Schön states, practitioners often play intermediary roles. If game designers have to be in an intermediary position between clients and players, not giving them the means to fulfil their role may lead to a negative perception of the designer–agent role. And if this role becomes more common with the casual game revolution, then game design as a whole might be threatened or discredited, as the designer is no longer considered an expert. We can see how the external factors can influence the designer's role, and how they can create internal conflicts, which jeopardize reflection-in-action. However, this situation might be overcome, as designers start to identify difficult situations and plan new solutions to prevent these situations.

Towards reflection-in-action: An expansion of the designer–agent profile

While the game designer can easily be trapped in a restrictive role, the participants interviewed in this study nevertheless demonstrated their capacity to find solutions to move from Model I, where information is defensively withheld by the actors, to Model II, where reflection-in-action is made possible by openness to information, and where the designer can learn from the others and from himself. Two examples help illustrate this transition:

first, the presentation of a casual game's first playable version shows that designers are conscious of the limits of a defensive mode of practice. Second, an analysis of how the game design document (which will be explained below) is used shows how designers can adapt and find new ways of approximating Model II, where the openness of the actors permits a better reflection.

The first playable version: Revealing preconceived ideas about casual games

The first time one presents one's game to the world is a milestone, though often a delicate one. Participants 1 and 8 had some fairly painful experiences with their respective first casual game projects. Participant 1 presented a first playable version of his game the same way he would for 'hardcore' games: '[the first playable is] a level of the game where all the ingredients are present, all the complexity'. Unfortunately, this complex level was not received well by his peers. When his colleagues tried it, including the company CEO, they felt the experience was too difficult: 'It was frightening for them' (Participant 1). According to the participant, his colleagues expected to play the first level of the game, a level with a slow learning curve, without any difficulties, as this is what the word 'casual' meant for them. After this experience, this designer felt he lost the confidence of his teammates because 'they had the feeling that we were not doing a casual game anymore'.

Participant 8 encountered a similar situation. While working on a dancing game, he asked his team leader to play an advanced dancing class. Confronted with the level's demanding moves, the team leader was overwhelmed and decided that the level was too difficult. When the designer reminded him that he could play the easier levels, the leader appeared offended. Participant 8 explained that this situation was illustrative of some of the preconceived ideas behind casual games – that the players are not very involved and they do not play enough to progress.

In both these examples, when a presentation of the first playable version of a casual game is given, everybody on the team is guarded. The slightest misunderstanding can lead to dramatic consequences, like a loss of confidence in the designer. Participants 1 and 8 felt they needed to change their habits. Participant 1 now starts the first playable version presentation to the team with the first level basics, in order to meet the team's expectations. However, he has not found a way to make the information about casual games and their preconceptions more evident. This situation is close to Model I, where the designer, the team leader or the CEO exercises unilateral control, keeping their motivations and preconceived ideas to themselves.

All the designer can do is adjust his behaviour to avoid 'punishment'. As explained earlier in this paper, this model cannot allow the reflection-inaction to flourish. However, our second example shows some beneficial changes in design practices.

Information circulation: From a game design document to a constant reflection

A casual game project difficulty is an opportunity to understand how role framing can evolve by changing design practices. In a traditional game project, the game design document is like a Bible. It is a massive document containing text, images, diagrams and tables that are used to describe every aspect of the game, from target audience to character, artificial intelligence, objectives or achievements. Participant 1 showed that this approach to game design is outdated, especially with respect to casual games. In his view, leaving a designer alone in a room for two weeks to produce a gigantic document is hindering the spread of information. 'It's a time waster', explains Participant 1, 'because the designer's reflection is limited, and once the designer reaches this limit, he just goes around in circles'. Then, when the game design document was presented to the team (approximately fifteen people) during an eight-hour long assembly, the team had difficulty debating the content of such a large document. Participant 1's vision corresponds to Model I: the designer is put in a defensive position, as the information is released suddenly and the time to discuss it is short.

However, Participant 1 adapted to these difficult conditions and changed his strategy. He now writes one-page documents and then organizes a small meeting. He explains: 'The ideal formula for me is 30 minutes with two or three propositions . . . I usually do that with three people . . . Then I elaborate new propositions from their suggestions and I go to see another group of people.' For this participant, this is 'the easiest way to transform a large set of possibilities into something solid'. This process is closer to Model II, where information is shared. As with Model II, the designer spreads information and can quickly make changes and explore inventive ideas.

Participant 5 and 6, who fit the designer–gamer role, both used a similar method. Instead of producing documentation, they produce very small prototypes, and produce iterations of the prototypes for as long as necessary. These design practices promote reflection-in-action, open discussion, and value the work of the game designer. These changes in practices appear to be an efficient way of reorienting the practitioners towards reflection-in-action, and show that such a reorientation is possible inside the casual game projects.

Conclusion

This chapter showed the results of what Schön called a 'reflective research' – a kind of research 'which can be undertaken outside the immediate context of practice in order to enhance the practitioner's capacity for reflection-inaction' (Schön 1983, 309). Conceiving of two different roles, the designer–gamer and the designer–agent, allowed for analysing some of the current industry dilemmas from a new perspective. For example, the lack of money or time devoted to casual game design can be seen as consequences of the restrictive role allotted to casual game designers, but these constraints can be overridden as the role of designer–agent is better understood and considered.

Moreover, 'role frame analysis' is an effective method for explaining evolution in the video game industry. As explained earlier in this chapter, the first negative impression of the participants with regards to their job was rapidly overcome by a feeling of meaningfulness. The participants interviewed in this chapter realized that not being a designer–gamer could be a valuable experience, where they could acquire new design skills. One could argue that the 'casual game design revolution' is the opportunity to rethink what design thinking is in the video game industry.

With the rise of casual, social or mobile games, the role of designer-gamer might become rare, while the one of designer-agent might become more common. While this chapter presented the difficulties encountered by designer-agents, this evolution of the designer's role might also be worth celebrating. In the last few years, more and more critics have attacked the video game industry. Many researchers (Roch 2004; Dobson 2006; Tschang 2007; Wesley and Barczak 2012), as well as designers, pointed to a lack of innovation in the industry (Stevenson and Berkowitz 2004). Casual games, with their new players, might be a source of innovation. But above all, they might be a way to rethink what game design is.

The casual game revolution has opened up a new perspective on the video game world, and a need for change in game design practices. A desire to create a more inclusive community around games has emerged, reaching new players, but also new designers. While this opening up of the game industry is excellent progress, the evolution of the game designer's role suggests that it might be wise not to throw the baby out with the bathwater. Existing game designers are facing an evolution of their own roles, and some interesting solutions have emerged from within the current game industry context.

Before completely changing the actors involved in the game industry, it might be prudent to reflect about what game design was, is and will be. These

questions are surprisingly not given enough attention, as the authors Kuittinen and Holopainen note: 'The activity called design, is left to too little attention' (Kuittinen and Holopainen 2009, 7). The changes in the game industry itself as well as changes in the roles of game designers, suggest that this might be the time to dive into research on game design, and more specifically, to consider the issues raised by casual games. Understanding how game designers think and operate might lead to new knowledge, and, maybe, to a more innovative and inclusive industry.

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Discussions with developers: F2P and the changing landscape of games business development

Tom Phillips

Upon the launch of Apple's App Store in 2007, journalists were quick to apply the term 'gold rush' to the flurry of software development activity that followed (Stevens 2011, 3–4). Yet despite the sustained growth of the marketplace, some commentators have noted that the supposed 'rush' is over (Streitfeld 2012; Evans 2013; Grubb 2013). Speaking in 2014, developer Matt Coombe noted 'In the early days [. . .] if you could make a decent app and get it out . . . you had a very good chance for success. [. . .] I think those days are over because there's so much quality out there' (Oliveira 2014). Yet Coombe's scepticism belies the sheer amount of money being spent on the App Store, which totalled over US\$10 billion in 2013. While few apps are guaranteed to be an overnight success – and indeed some that may be considered to be (such as *Angry Birds*) are in fact the result of numerous attempts (Stevens 2011, 11) – what such figures make evident is that the mobile application marketplace represents a significant opportunity for the capitalization of new gaming business models.

Significantly, gaming's dominance on the App Store – with over 320,000 games available as of February 2015 (Anon 2015) – appears to offer the most prominent outlet for the 'gold rush' to continue, with the dominance of the free-to-play (F2P) business model. Of the top ten grossing apps of any kind of 2013, all were games, with nine being F2P with additional in-app purchase (IAP) options (Schoger 2013). The potential for economic success is exemplified by development company Supercell, whose games *Clash of Clans* and *Hay Day* made up two of the top three grossing apps and had earnings of US\$462 million in 2013 (Grundberg and Rossi 2014). The startling success of this business model has led to the increasing dominance of F2P within the gaming sector, with many hoping to replicate the economic achievements of developers such as Supercell, King and Kabam. While the model has been lauded by some (Lovell 2013; Luton 2013; Clark 2014), others within the industry have treated it varyingly from expressing caution (Shokrizade 2013a) to outright disdain (Bogost 2014).

With the marketplace apparently crowded, there is a sense from game developers that the role of shrewd business development has become increasingly important. Such attitudes were apparent on 6 December 2013,2 when a cohort of ten games developers and industry experts were invited to participate in a workshop to discuss the current state of the sector. Participants included independent games developers from across the United Kingdom and Europe, largely from small-sized studios, and all of whom develop exclusively for digital platforms. These included the CEO of a developer of F2P mobile games, a one-person development team who had their latest game funded via crowdfunding, the co-founder of an award-winning European micro studio, and the head of a digital product agency who has provided mobile and desktop games for commissioners at Channel 4 and the British Broadcasting Corporation (BBC). In addition, participants also included a game director from Sony, a representative from industry networking group the Scottish Games Network, a freelance games journalist, academic experts in (respectively) digital law and the European development of copyright law and policy, and a business affairs manager at the BBC. Proceedings were chaired by the author and colleagues introducing topics for discussion, seeking to understand current industrial discourse around broad topics such as business development, intellectual property and inter- and intra-industry relations.

While keeping direct quotes from participants anonymous, qualitative data from this workshop shapes the following discussion of contemporary industry concerns, allowing direct discussions with developers to explore the dominance of F2P and how it is valued by those within the industry. In addition, through analysis of popular and trade press, industry reports and academic literature, the impact of F2P's pervasiveness in the contemporary

sector is considered, particularly the influence it has on production processes (and approaches to games as 'art'), intra-industry relations and engagement with consumers. In an ever-changing landscape, this chapter captures a moment where F2P business models – and the wider implications they have for the industry at large – are a pressing issue. Shaped by the direct views of those in the industry, the chapter highlights the importance of communication between stakeholders to help shape the direction of their industry.

The workshop event began with a consideration of the current state of the industry. One of the key contexts that shaped debate on the day was the fact that the industry has changed and will continue to change. Participant A summarized as much when observing the state of the sector in late 2013:

One of the big issues I think we're facing as an industry is everything has changed. There used to be one way of doing development, one business model which was retail, and you had very clear routes to market. All of this has changed. We've now got multiple app stores, we've got multiple price points – different business models. And there's no one size fits all anymore. (6 December 2013)

In 2002, Dmitri Williams detailed the traditional vertical stages of the industry as applied to home consoles. PCs and handhelds, noting that although there are some fluctuations in competitiveness, the chain of production can be readily charted from development through publishing, manufacturing and distribution to retail (2002, 46). Focusing on the latter stages, Williams places an emphasis on the physical storage and delivery of games, noting the propensity for distributors to establish exclusive contracts with some major retail chains, while hinting at 'alternative distribution paths on the horizon' (2002, 48-9). While today agreements with particular retailers still exist,3 generally the traditional retail model has seen a reduction in sales amidst changing consumer habits and developers' preferences for a more economically favourable return on their games over time (as opposed to retailers' emphasis on repeated sales of pre-owned games, whereby all revenue is retained) (White and Searle 2013, 39-40).4 As a result of the downturn in retail sales the new horizon suggested by Williams is now a common part of contemporary business models, with prominent digital distribution platforms - such as Steam, the Apple App Store, Google Play and Xbox Live Arcade – demonstrating companies' rapid response to customers' changing demands, desires and preferences (Clemons, Gu and Spitler 2003), particularly with regard to incorporating differing price structures, increased product diversity (e.g. 'family-friendly' titles), social network connectivity and content that can be purchased on demand (White and Searle 2013).

Yet while some digital platforms apparently signal an embrace of new methods of production and distribution that work with consumers.⁵ one of the most prevalent points of appeal for some developers is the sheer amount of money to be made for relatively little financial risk. Claudio Feijoó notes for instance that 'whereas development and marketing costs for a console or PC game may run in the millions of euros, the costs for a mobile game were already typically in the range of the hundreds of thousands and sometimes even less [. . .] Within the new [mobile distribution] platforms these costs may be even an order of magnitude lower' (2012, 87). In bypassing costs associated with traditional models, which could see revenue filtered to retailers and publishers (Kerr 2006, 85), developers can instead produce low budget games with small marketing and distribution costs, promoting digital sales - across mobile, desktop and console platforms - where the majority of revenue is recouped and losses are minimal. As noted above, success is not guaranteed, but new retail models which diverge from the traditional can offer greater opportunity for success.

One example of such commercial success has been the widespread implementation of the F2P model. A F2P game is one which provides players with an option of playing the game without paying. Significantly, however, the game will still attempt to generate some revenue; sometimes this will be through in-game advertisements that may interrupt or encroach on gameplay. Yet most frequently, income is sought through 'additional content' players can purchase to enhance or extend their basic playing experience, commonly referred to as a microtransaction, IAP or freemium model (Jacobs 2012). Will Luton notes that monetized aspects of F2P games can be classified in one of four categories, which he terms the 'four Cs':

- Content: Consisting of more levels, maps, characters or similar that give players more of a game's world or new abilities in it.
- Convenience: The purchase of anything that skips players ahead, providing them with something that gives access to what could be acquired through the game with time and dedication.
- Competitive advantage: Anything that once purchased gives the player a winning edge whether against the game or other players.
- Customization: The process of creative expression by fashioning, adorning or otherwise personalizing something. (2013, 76–81)

The economic success of applying such tactics has subsequently meant that those consumers who frequently use microtransactions are now a desired userbase by some developers and publishers. The pursuit of 'whales' – those who are typically defined as spending over US\$100 on a game per month

for at least three months (Clark 2014, 68) – has been coded by some trade press in terms of 'manipulation' or 'exploitation' (Rose 2013), with 'coercive' (Shokrizade 2013b) freemium strategies thought of in pejorative terms. Dave Cook, for instance, has noted the implementation of convenience mechanics in *Dungeon Keeper*, which although offer themselves as an *option* – allowing users to purchase gems to speed up building and excavation processes in their dungeons – make a point for the alternative to be overwhelmingly unappealing; in this case making users wait a full minute for each process to complete. Cook warns against a superficial reading of the F2P label, imploring users to 'think about what that term actually means first' (2014). Similarly, taking a strong view against F2P, Participant B stated:

If you follow [our game] one of our biggest marketing points on release was that we did not like the free to play model. It actually has nothing to do with the fundamentals of free to play... We appreciate the thoughts behind it [but] every not-cynical implementation I've seen on iOS has failed. (6 December 2013)

Here Participant B takes a moral standpoint against F2P, claiming much like Cook that F2P's commitment to being 'free' is questionable. The extent of a game's 'cynical' nature is obviously subjective, which makes systematically attempting to chart the relative success of 'un-cynical' F2P games difficult. Yet what is important to note here is how Participant B places ethics and integrity in opposition to the F2P model, suggesting that to be successful at F2P one must operate cynically and, therefore, if one wants to operate ethically F2P should not be used.

Ben Cousins believes such negative-slanted views are representative of what he terms 'The Establishment: game developers, fans, commentators and journalists from the traditional (pre-2007) business' (2014) who may be unwilling to embrace holistic change in the industry. Participant A noted 'there's no one size fits all anymore', and although this is an acknowledgement of the evolving nature of the games market (UKIE 2011, 4), it doesn't necessarily signal comfort with such changes. The fact that different business models are being implemented to varying degrees of success and with varying degrees of reception suggests that the shift from the broader channels of integration (Williams 2002) to more custom approaches is one with which the industry as a whole has yet to reconcile itself. And as Participant A notes, this process often manifests itself in conflict:

[T]he problem is you'll find case studies which argue both sides. And the game sector is absolutely terrible, universally, in thinking in a binary fashion – it's 'this' or it's 'that'. So either everything's going to be free to play or nothing's going to be free to play, and the reality is of course between the two. And there's probably a whole raft of different models, surely. (6 December 2013)

The variable attitudes to developers' implementation of F2P, categorized in binary terms as either 'honest prospectors' or 'claim jumpers' in this particular 'gold rush' (Davidson, Dodson and Rigby 2012), makes clear the difficulty in trying to establish a dominant viewpoint on the merits of the model. As Participant A notes, these attitudes can be detrimental to the process of embracing new business models and do not reflect the intricacies of such models: instead making simplistic moralistic judgments on whether something is 'good' or 'bad'. Indeed, despite their negative stance, Participant B later goes on to note that F2P 'will be great to have for a number of games in the industry, and I do think that the idea of not requiring payment before buying the game . . . is a morally sound stance' (6 December 2013), yet is simultaneously unwillingly to wholeheartedly endorse the F2P model, as to do it *effectively* would be counter to their ethical stance.

Participant B's negotiation of their attitude towards good business sense and ethical games development feeds into another apparent discourse which pervades contemporary games development – that of a tension between business and art. Where games are seen as art, gameplay is lauded, moral integrity is valued and there is a perception of an ongoing communicative relationship between producer and player. In comparison, when games are seen as a business commodity, monetization techniques are a priority, developers are thought of as unscrupulous and players are consumers to be milked for cash. As Participant C notes:

[There is a general tension] between art and business, they are fundamentally different. Art is about creative expression, business is about making money. People get into the games industry because they love games, they generally don't get in because they want to make money. (6 December 2013)

Participant C here makes the claim that creativity in the games industry is innate among its cohort and as a result business acumen – or a prioritization of monetization – falls behind. Negating even the doubt that games can be considered an art form (Parker 2013), this view demonstrates the moral position taken against F2P; that creativity is about the game and gameplay experience and those who emphasize making money from players apparently do not love games. This places a hierarchy among developers, suggesting

that those who prove their commitment to games are more 'worthy' of being creative personnel and enjoying success.

Yet this creative-economic binary is complicated by the fact that even the most 'honourable' developer requires living costs. As Participant B notes: 'People romanticize being indie but actually it's the opposite of all that' (6 December 2013). As a result, there has been a dedicated effort by developers to educate their peers on the importance of optimizing for opportunity: 'making sure that your game is visible for the right people, making sure that your game has a hook, making sure that you know how much money you'll need, that you'll be sustainable in the long term' (Participant B, 6 December 2013). Such an approach to education will help potentially avoid what Participant C perceives as an unjust situation:

[You meet some] people who are, say, shuffling out all these apps that are complete rubbish, and they're making money and they've got really good business sense, doing extra optimization, and they're working out their costs, how much they're going to spend, they're doing different version of their games and they're making all this money. And it's just wrong that these really creative people – people who really love games, are sometimes the people who are the most uninterested in the business side, or lacking in the business skills. (6 December 2013)

Making the effort to educate 'creative', 'honourable' developers on recommended business development plans and share advice with peers who similarly 'love games' has become a significant aspect of contemporary games development. This does not necessarily mean that developers are actively partaking in creative collaborative practice (O'Donnell 2009), but discussion, discourse and fostering of community is prized, whether online via social networks or offline at conferences:

You go to Develop or GDC in the States and it's very open. I was surprised by how open it was. I first went to GDC three years ago, and I was actually quite surprised by how open everyone was – with their stats, with their analytics – and I'm sitting in a Microsoft talk which is supposed to be my direct competitors, and they're telling me all this stuff I can learn from, that I can take away. (Participant D, 6 December 2013)

Openness between peers and competitors is something which is helping to sustain the sector and promote creativity and new voices. As Participant B notes: 'We can't exist without that co-operation. There's no way for us to sustain ourselves without the help of other indies' (6 December 2013).

However, while there is an attempt here to break down binaries of creativity and economics, this is still done within the moralistic context of 'appropriate' developer behaviour. *Thomas Was Alone* developer Mike Bithell has observed how audiences online apparently made the arbitrary decision that he was 'nice' (Bithell 2014) and it is often those developers categorized as particularly 'nice', 'friendly' or 'creative' that are acclaimed.

In comparison, the vitriolic reaction afforded to Dong Nguyen upon the success of *Flappy Bird* makes evident how a successful independent F2P developer may be treated. Persistent and prominent attacks on Twitter, accusing Nguyen of employing bots to boost App Store rankings and plagiarizing other games, led to Nguyen deciding to remove the game from the App Store (Dredge 2014). Some of this vociferous response may have been a result of Nguyen's development practices not conforming to what is deemed 'appropriate' for an independent developer: chiefly that he was making an estimated US\$50,000 per day from a F2P game not perceived to be wholly original (Kushner 2014). Oscar Clark believes that 'successful game development is very much like standing on the shoulders of giants. We try to understand the games that formed our thinking and look at how we can build higher still' (2014, 105). Yet despite this, the differing treatment of Bithell and Nguyen demonstrates the way capital is afforded to different development practices by those within the industry.

What this suggests, then, is that the 'correct' approach to business, art and ethics is not fixed. Approaches are subjective and influenced and reinforced by creative communities within different spheres. However, these communities are not only those which exclusively inhabit developers – game players can be similarly influenced by binaries and norms enforced by developers. As Adam Green notes: 'The Establishment' taking aim at aspects of F2P leads not just to user complaints about an individual game, but complaints 'about the industry, the model and are frequently stating (in no uncertain terms) that it's putting them off freemium as a whole' (2014). Indeed, in a digital age where audience engagement with producers is more readily accessible via social media, channels of communication between developer and player have been opened.

One prominent facilitator of communication has been crowdfunding website Kickstarter, which has proved a popular resource for developers to find funding for their game projects. Some Kickstarter-funded games have had overwhelmingly successful campaigns, and in March 2014 the company announced that US\$1 billion had been pledged to projects in less than five years of operation, with US\$215.75 million going to game projects specifically (Corriea 2014). This success demonstrates the value of a crowdfunding business model, and Participant E's reflection on their successful Kickstarter

campaign places an emphasis on not only the resultant economic freedom, but also the way in which a closer relationship between producer and consumer is facilitated:

[With my backers] I actually had people I was responsible to, whereas before it was just me, messing around in my bedroom, now I had . . . to keep [backers] updated on what I was up to, and tell them why the game kept slipping by six months in the end. But what was really good was it was gamers that had basically funded me and not businessmen and not people who were looking for a return on an investment – they were very understanding. (6 December 2013)

While Anthony Smith (2015) argues that during the campaign phase crowdfunding's more direct relationship between producer and consumer can be interpreted in both positive terms (e.g. a greater understanding of consumer desires) and negative terms (e.g. a pragmatic attempt to attract more backers), in the post-campaign phase a sense of community is more readily perpetuated through backers' persistent influence - both direct and indirect - on the game development process. Again, while Smith maintains caution in celebrating the communal dynamic as decidedly un-cynical (2015, 204), the openness encouraged by a transparent communicative environment can lead to a greater understanding of game development processes and the choices which may lead to a game launched at a premium price point. For example, after a successful Kickstarter campaign for Fist of Awesome, developer Nicoll Hunt made his distribution process transparent via a public blog post, noting in detail the financial implications of launching a premiumpriced game on mobile platforms in opposition to the current propensity for F2P titles. Much like Participant B's belief that a duty of care to the player and one's peers is in opposition to freemium's current position as the dominant F2P model, Hunt suggests that his premium price point is designed to impart the worth of his creativity and let players feel as if they are making an informed purchasing decision (Hunt 2013).

Yet in contrast, Clark argues how much more appealing F2P is for developers in comparison to premium models, observing how upfront payments '[cast] a shadow on the behavior of the user' by asking them to pay before experiencing the game (2014, 241). Clark's argument is that like the premium models advocated by Participant B and Hunt, F2P can prioritize the interests of the player. This approach encapsulates Clark's belief of treating games as a service, where the developer is 'not just making a game for [themselves]' (2014, 35), but is instead committed to delivering the game as part of a set of added value services, such as community engagement and support (2014, 224). Once

again dispelling binary assumptions, Clark's testimony reveals how similar to premium models F2P can be – arguing that F2P is just as concerned with cultivating a favourable and accessible experience for its players. The distinction between premium and F2P developers is similar to Laureline Chiapello's categorization of 'designer–gamers' and 'designer–agents' in this volume and, like those designers, premium and F2P developers similarly 'have a common understanding of what makes a good game: something fun, entertaining'. Yet in the disparity between the accounts of those such as Hunt and Clark, it is clear that the aspects of F2P which seek to bring producers and consumers closer together are not necessarily recognized by 'The Establishment' and new dominant models will take hold. As Participant F notes: 'The players will just vote with their feet ultimately' (6 December 2013).

The interwoven and malleable nature of these business models reflects the fast-paced manner in which the games industry is changing. The way in which premium and freemium models can both correlate and contradict one another makes evident the confusion which may accompany a particular 'gold rush'. Participant G comments on the way in which regulation is currently up in the air, with some freemium models increasingly considered by the European Commission to be 'potentially a complete breach of consumer protection laws. So the EU at the moment is discussing the fact that a lot of this free to play stuff and particularly microtransactions within fully priced games is an issue they're becoming concerned about' (6 December 2013). Similarly in 2014 the UK Office of Fair Trading released a set of guiding principles for the development of games which included microtransactions. As a result, issues of ethics are becoming part of discourses of creativity in the industry and the 'gold rush' is beginning to be shaped by policy intervention.

Yet although this policy will attempt to shape development practices from a legal standpoint, what is considered 'appropriate' for business models will still appear to be shaped from those within the industry. Ultimately, there is no one correct answer – a binary black and white opinion on ethical business practice appears misguided. However, the fact that such debates exist signals the way in which the development of business models can change industrial attitudes. There is no universal embrace or condemnation and conversations between stakeholders continue, in order for the further growth and improvement of the sector as a whole. What this chapter demonstrates is that it is perhaps not appropriate to attempt to detail a best practice guide for the contemporary games sector, for as Participant B notes: 'it's not a science' (6 December 2013). For all stakeholders – pre- and post-2007 members of 'The Establishment' – conversation, debate and communication should be prioritized, and such dialogue can be fruitful. Despite any changes that may occur with business models, or attitudes towards the tension between

business and art, the future of a thriving game sector is dependent on communication between stakeholders, regardless of individual perspectives on ethics or appropriateness.

Notes

- **1** By February 2015 over 1.5 million apps were available to download from Apple's App Store (Anon 2015).
- 2 The event was hosted at the University of Edinburgh as part of the 'Copyright and Games' project, one of forty under the auspices of CREATe the Research Councils UK-funded centre for copyright and new business models in the creative economy (AHRC Grant Number AH/K000179/1).
- **3** See, for instance, the contemporary trend towards retailer-specific pre-order bonuses (Dutton 2011).
- 4 White and Searle detail the sale of pre-owned games in retail outlets, noting that 'Pre-owned games are a physical product that has been bought new . . . that has a trade-in value most commonly redeemed against another title. Traded games are then re-sold, sometimes multiple times, by the retailer at a reduced price. . . . As a result, computer games developers creating physical product for the retail market have access to a continuously shrinking share of consumer spend in the market' (2013, 39–40).
- **5** See, for instance, the way in which Valve Corporation have designed their digital distribution platform Steam to 'allow digital content creators to have a relationship with a worldwide audience' (Tufnell 2011).
- **6** For example, 61,290 backers donated US\$2.9million for *Wasteland 2*, exceeding the target of US\$900k. Similarly, 87,142 backers donated US\$3.3million for *Double Fine Adventure*, exceeding the target of US\$400k.

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PART TWO

Reasons to play

The sociality of asynchronous gameplay: Social network games, dead-time and family bonding

Kelly Boudreau and Mia Consalvo

Introduction

Popular images of multiplayer digital games are diverse and dynamic, often showing us friends or siblings playing a *FIFA* or Madden game in their living room, a family engaged in multiple sports games with their Wii, or a guild gathering together via remote locations to fight through dangerous dungeons in *World of Warcraft*. Alternately that multiplayer image can be quite negative, presenting profanity, misogyny and homophobic slurs rising up from player vs player (PvP) style games such as *League of Legends*, where players will denigrate and abuse not just their opponents, but their own teammates as well. Yet sociality of all types is not just a feature of synchronous gameplay – it is also a key (but understudied) component of asynchronous multiplayer gameplay. Even when players are not engaged together in a persistent gamespace at the same time, sociality is possible and can become an important part of not just the gameplay but the larger online networked experience. Rather

than seeing it merely as a design limitation, the element of asynchronicity can instead be viewed as an affordance for fostering different and rewarding types of social interaction not offered by simply synchronous play. This chapter will explore the concept of asynchronicity, particularly as it relates to social network game (SNG) design as well as how families play such games 'together' and how the concept can be better theorized as an important component of sociality in digital games.

In comparison to other multiplayer computer and video games, SNGs are unique in that they are designed to be played with the people in a player's online social network(s), and players do not normally play them at the same time. Early research on SNGs focused on their limited social affordances, where sociality was defined merely as instrumental: in order to progress, players often needed a certain number of 'friends' or 'neighbours' to advance, players had to request items from others to complete quests and challenges, and visiting the game-spaces of their friends offered no real chance for meaningful interaction (Rossi 2009; Wohn et al. 2011). In this sense, players 'used their network' (Consalvo 2011) more than they played with their network. Yet the limited social interaction was often blamed on one common feature of such games – their asynchronous design. Although players relied on each other for progression, they did not play in the same game-space at the same time (Järvinen 2009; Bogost 2004). This particular design element is still present and prevalent, but deserves a more careful examination. Asynchronicity influences the types of sociality possible, and so it is suggested that players learn to negotiate the different types of sociality that are possible through asynchronous gameplay (Stenros, Paavilainen and Mäyrä 2009). For many, the asynchronicity of SNGs allows players to engage in a leisure activity with members of their social network without a direct commitment.2

Social media sites have become a staple in maintaining social and familial bonds (Vitak, Ellison and Steinfield 2011). Sites such as Facebook allow users to post status updates, upload pictures and share online content. But family ties are developed through more than just the exchange of personal information and direct interaction. Families also bond through repetitive and often mundane activities on a daily basis; watching television or cooking dinner can strengthen a familial bond as it enables them to 'be' together without having to exchange meaningful information. With the increased popularity of online SNGs, families that are separated by distance now have a space to engage in leisure activities that have the ability to bring family members together yet do not necessarily rely on a 'meaningful' exchange of information. Social network sites and SNGs more specifically, provide families with a space of leisure where they can engage with each other in a way that allows them to

feel connected without the obligation of direct, purposive interaction (Wen, Kow and Chen 2011).

This chapter will look at the affordances and limitations of the design of SNGs, the impact of asynchronistic gameplay on forms of sociality, the importance of dead-time and, drawing on our previous research on families and Facebook games (Boudreau and Consalvo 2013; 2014), how asynchronous social network gameplay enables family members to interact with each other in a less direct, purposive, yet still meaningful way.

The design affordances and limitations of sociality in SNGs

In defining social games, Consalvo explains that 'Social games typically feature a single player component, coupled with basic forms of multi-player interaction embedded in the design' (2010, 189). In order to address the ways in which SNGs foster different types of sociability, the following section looks at a few design elements that either afford or limit social interaction in and around SNGs.

Combining design theories from Rao (2008) and Bogost (2004), Järvinen (2009) explains five design drivers for designing SNGs: symbolic physicality, spontaneity, inherent sociability, narrative and asynchronicity (Järvinen 2009, 97). Together, these drivers create what Järvinen calls 'interaction design for social playfulness' (98) where SNG design is aimed at creating 'storyor community-based justifications for the resolutions of events in their games' as compared to more traditional video game design which is primarily concerned with creating 'skill-based justifications for resolution of events' (99). The following section addresses the aspects of *inherent sociability* and *asynchronicity* by looking at the different ways current SNGs structure gameplay and sociality.

SNGs are designed specifically to be played on and with one's online social network. With the specificities of the platform the games are being played on and the asynchronous conditions of play, SNGs are played not only within the designed boundaries of the game-space, but are also intended to extend into the player's social network space. This includes request notifications sent to other players that show up in their social network site's news feed and notification tabs as well as wall posts that announce one's attained achievements for the player's network to see. Gameplay also tends to extend far beyond the boundaries of the digital space of social network sites into the everyday lives of players as the game becomes a point of conversation in

telephone calls or face-to-face interactions, much like the weather or current events (Wen, Kow and Chen 2011; Boudreau and Consalvo 2014).

Excluding turn-based games played over social networks such as Texas Hold Em, Scrabble and Lexolous, most SNGs are inherently single-player in that the active gameplay within the game-space is performed by one person (typically the person whose social network profile is logged in). While SNGs are designed to encourage players to draw on friends within their social network in order to advance in a game (Rossi 2009), the extent to which players need their friends varies depending on the game. For example, in match-three games such as Candy Crush Saga, gameplay is not dependent on the player's network in that they can play and advance without the help of their friends, though friends can give each other extra lives or share bonuses with each other that make gameplay easier, and can compete 'against' each other via in-game scores and leaderboards. In contrast, a game such as Pioneer Trail pushes players to ask their friends for items in order to complete quests that make up gameplay progression. When a player asks for help, the 'friend' is sent a notification of the request. Interestingly, this does not occur inside the game-space, but in the friend's social network space, separating the request from the player's gameplay. In this context, sociality occurs during the asking and reciprocating phases of play that mediate the player's game, rather than within the game itself.

Although players do not play within the same game-space, in some games it is possible for players to see the avatar of other 'friends', for example, watering crops in Farmville or as a customer in Café World. However, these friends' avatars are not actively played by their owners in these moments. In this way, it could be argued that players are reminded of their friends' contribution to their advancement within the play-context, making them part of the play experience. Added to this is the fact that there are often no in-game means to communicate with other players when they do actively visit each other's games. The inability to interact with other players during gameplay (within the game) removes any ability for direct social interaction. Of course, some games offered different forms of in-game asynchronous communication. For example, in Farmville it was possible to leave sign posts with messages to be read by the farm's owner; however, these were still read asynchronously (messages left while players were actively in the game-space did not show up until the player re-logged into the game). Nonetheless, direct forms of functional and social interaction in SNGs are rare and most interactions are designed to occur primarily outside of the boundaries of the game.

Another element relatively unique to the design of SNGs that shapes how players 'play together' is that helping others does not directly impact one's own gameplay. Although players can help each other by sending extra lives

or items, depending on the game, each player's game-space is separate from other's spaces and has no real bearing on their own progress.³ But in considering the *inherent sociality* of SNGs in that they obligate players to draw on their network for help, by helping others, it has been argued that players are building social capital (Wohn et al. 2011). So while helping others may not directly impact one's own game, the social capital gained in helping others results in those players potentially reciprocating item and gift requests. Along with an increased sense of obligation for players to help members of their social network with whom the player is close to (Boudreau and Consalvo 2014), this capital in turn results in a virtuous cycle where other players become more willing to help those who help them leading to the reciprocal nature of social networked gameplay.

Finally, we should note that although SNGs originated as browser-based games played primarily through social network sites such as Facebook, they have now expanded to standalone game apps on tablets and smartphones as well. This has challenged how SNGs are both designed and played since different platforms have different technical and social affordances. From offering different level limits (and tweaks in level design as can be seen in *Candy Crush*) to removing the player from the social network site completely, players who play together across platforms have fundamentally different gameplay experiences which influences the degree of asynchronicity and the types of sociality afforded not only by the game but by the platform and play-context. In this chapter we concentrate on players' experience of SNGs on social network site, but acknowledge that more work must be done examining how play experiences change as players access the games via different devices.

(Re)defining asynchronous gameplay and its impact on sociality

Bogost outlines four features of asynchronous gameplay: (1) it 'supports multiple players playing in sequence, not in tandem'; (2) 'it requires some kind of persistent state which all players affect, and which affects all players'; (3) 'breaks between players are the organizing principle of asynchronous play'; and (4) 'asynchronous play need not be the defining characteristic of a game' (2004, 2–3). Bogost's goal is not to define all possible types of asynchronous gameplay across types or genres of games, but when considering SNGs specifically, asynchronous gameplay exhibits some of these features to varying degrees while challenging others wholly.

In considering the first feature listed, that asynchronous gameplay supports play that occurs in sequence rather than in tandem, we argue that for SNGs play occurs both sequentially and in tandem, in that each player can play in their own game at the same time, yet the parts of gameplay that require the player to draw on their network occur in tandem. So while asynchronicity is an important part of the gameplay, not all social network gameplay is asynchronous. Similarly, the second characteristic – a persistent state that all players affect and which affects all players – is not a necessary feature for asynchronous gameplay in SNGs. While van Meurs states that the most important of Bogost's characteristics is the 'persistence of game state' (2011, 5), we would argue that it is not a fundamental feature of asynchronous gameplay in the case of SNGs in that a player's actions may not often (if at all) change the status of another player's game, even if they are playing within the same game 'space' of a city, farm or puzzle. Likewise although players can sometimes help one another advance in certain ways, players can experience smaller and larger gaps in time between their play sessions, and their different experiences of asynchronicity will do little to affect the play of others, particularly if they also continue to 'help' other players with actions taken 'outside' of the game-space.

To say it another way, players are never in the same game at the same time therefore negating the need for persistence as a defining characteristic of asynchronous gameplay. Rather, the asynchronous element of social network gameplay is better identified during the 'down-time', or periods between active play, whether it is the player requesting help with a quest item or the player who sends the requested item. While it is true that both players must have the same game installed in order to help each other, and that the game world that each player is playing in must be persistent so that progression can be tracked, what each one does in their own game often has no impact on other players' game-world or progression. As such, social network gameplay does not necessarily require persistence of a shared game-world in as much as it requires the persistence of the reciprocal exchange of items between players. There are always exceptions of course, as some requests for quest items or gifts may also benefit the reciprocator as well (Tyni, Sotamaa and Toivonen 2011), but those gifting their friends do not necessarily always need (or use) the reciprocal gift and this has no consequence on the requesting friend's gameplay.

Of the four characteristics, we would argue that the most important one for SNGs is the third feature which iterates that 'breaks between players are the organizing principle of asynchronous play'. In thinking about the reciprocal nature of social network gameplay, the breaks in play that exist in the time between the player asking a friend for a quest item, the time that it takes

the friend to send the item, and the time it takes the player to log back in and use the requested item creates a multifaceted timeline of gameplay with several breaks between each step of active play; whether it's the requesting, sending or using of the game item. Fundamentally, it is in these breaks that opportunities for sociality occur in social network gameplay. Two important aspects emerge from the breaks between players (and play) in SNGs that influence sociality: the different types of play that occur within these breaks, and the notion (and importance) of dead-time (van Meurs 2011) in the process of gameplay, sociality and bonding.

Beyond the in-game mechanics that shape the intended types of interactions between players necessary for gameplay to occur (adding 'neighbours', item requests, etc.), 'dead-time' does not constrain the types of sociability that occur 'around' the game. Van Meurs notion of dead-time expands on research in game studies on time and temporality in gameplay.4 In the case of SNGs, van Meurs explains that the notion of 'waiting' is built into the gameplay of SNGs. From waiting for cranberries to grow (7) to waiting for a neighbour to send you a quest item, dead-time is the breaks in between moments of active gameplay - whether on part of the player, the game's mechanics or friends who help along the way. As van Meurs questions 'can we consider this kind of this waiting time as a form of dead-time? And if so, what would be the benefits of doing so? Waiting is definitely unchallenging from a gamer's perspective' (7). To this we would answer yes, this form of waiting could be considered a form of dead-time in that although players may navigate away from the game while they wait, their waiting is still framed by the game's design. The benefits of viewing dead-time in this manner would be to consider the spaces in between gameplay where no alleged action occurs as instead fundamental to opportunities for sociality that are shaped in part by the game even in its absence. According to van Meurs, dead-time accounts for both the halting of player time as well as the persistence of the engine/server times during a player's absence. Yet it is sufficiently flexible to also account for the waiting times when a player is present' (7). In this respect, dead-time becomes an important contributing element to sociality in that it is in these moments that players may contact each other to ask if they received their item request or to talk about other aspects of the game while waiting on the game to progress.

Of course there are other types of sociability that occur within this 'dead-time' beyond the waiting and active discussion about the game between players. Tyni, Sotamaa and Toivonen (2011) describe spamming (posting game-related messages to a player soliciting friends' help with an item or announcing that they have progressed in the game) as a form of sociability in stating that 'seeing friends' game posts and clicking on them maintains

the relation to the game even when the player is not "truly" playing' (26). These wall posts communicate information about the game to other players (and often to people who do not play the game as well). In the case of SNGs, communication between individuals within and about the shared experience of the game creates the potential for social bonds to form. As such, interactions that occur in moments of dead-time clearly delineate different types of sociability that are mediated by the game while not being in the immediate presence of the game itself. They also raise questions concerning if and how play persists in such moments outside of what is formally considered 'active' gameplay.

Whether it is in being reminded that a friend or family member is playing a game through wall notifications or through offline discussions about SNG quests, there is no question that gameplay continues to occur in dead-time. It is in these moments of extended gameplay, beyond the confines of the game-space, and through the shared experience of play, the opportunity for social and familial bonding occurs.

Families, asynchronous gameplay and social bonding

Fundamentally, sociality can be defined as a shared or collective experience (Fiske 1992). In this sense, players do not need to be actively playing together to share the collective experience of playing SNGs. For those who play the same game, whether actively or not, the shared experience of playing SNGs can create social and familial bonds by simply knowing that another person plays the same game even if they are not 'neighbours' in your game. As Tyni, Sotamaa and Toivonen explain 'instead of playing simultaneously, the feeling of sociability and shared experience is mainly based on being aware that others play the same game as well' (2011, 27). Thus knowing that others have similar experiences with and within the game creates a bond between players.

When considering players who already have an existing bond prior to gameplay such as family members or close friends and who are already connected through social network sites, the ability to play games together can potentially add an extra dimension to their leisure time, especially for those who are geographically dispersed (Boudreau and Consalvo 2014). As our previous research found (2013; 2014), family members who played SNGs together often felt a sense of closeness without feeling obligated to engage in more active forms of sociality. From visiting each other's farms to tend

to a crop, to leaving messages on signs in each other's games to sending decorative gifts to one another, there are multiple ways for family members to communicate with each other without engaging in discussion. By sending item requests or sending gifts to each other, family members could signal that they were thinking of one another without needing to interact directly, much like sending annual holiday cards through the mail. The asynchronous nature of gameplay and the types of sociality it affords offers families (or close friends) a playful, interactive leisure space that allows them to feel connected without the more direct pressures of social interaction in synchronous digital gameplay or face-to-face, turn-based play. For family members, the existence of dead-time in SNGs extends the game-space beyond both the game and the social networking site itself.

Yet even if players do actively use a SNG's dead-time as a way to continue playing in particular ways, that activity is often carefully focused. So although as Fiske writes, '... people are fundamentally sociable ... they generally organize their social life in terms of their relations with other people' (1992, 689), we found that family members who play SNGs have more of a tendency to organize their SNG play around the needs of their family members and close friends as compared to strangers, more distant friends or colleagues that they were not exceptionally close to or with whom had a pre-existing bond. In our previous research that looked at the practices of social network gameplay between family members (Boudreau and Consalvo 2013; 2014), some family members interviewed stated that they started playing SNGs solely through a sense of familial (or social) obligation, they also expressed a sense of shared experiences that they otherwise would not have had. For those who had stopped actively pursuing progress in a particular game due to a loss of interest, they often still continued to help other family members with that game by responding to help requests. Importantly, it was partly this sense of obligation and shared sociality that prevented players from deleting/ uninstalling such games from their Facebook account completely and that ultimately contributed to strengthen social and familial bonding over time.

This sense of obligation and bonding can be explained through Fiske's work on different forms of sociality (1992). Addressing communal sharing (CS) specifically, he writes that 'people in a CS relationship often think of themselves as sharing some common substance (e.g. "blood"), and hence think that it is natural to be relatively kind and altruistic to people of their own kind. Close kinship ties usually involve a major CS component . . .' (Fiske 1992, 691). This could explain why family members – even those who have never met face-to-face but who share bloodlines – may feel more obligated to help other family members when they are sought out to do so. Over time, the act of CS through social network gameplay could lead to a deeper sense

of belonging between family members even if the interactions shared never occurred in synchronous time.

Furthermore, 'in the context of a Communal Sharing relationship, people treat material objects as things that they have in common' (Fiske 1992, 693). As families become geographically dispersed and turn to the tools found in an increasingly digitally mediated world for interaction with one another, we can thus consider the objects shared through SNGs as *symbolic physicality* (Järvinen 2009, 97) that further bind family members together. Although grounded in the physicality of familial bloodlines, shared leisure experiences mediated by the asynchronous gameplay of SNGs enable family members to expand the ways in which they socialize both actively and in dead-time in ways that were not previously possible online.

Conclusions

This chapter has explored how asynchronicity can function as a beneficial component of gameplay, particularly in the context of social/familial bonding found in social network gameplay. Although its name is unfortunate, the concept of 'dead-time' or the time between acts of gameplay is a useful one for understanding complex dynamics of player activities. So although the time may be 'dead' in that a player is not actively within a game-space, players are still using that time productively to advance in the game, help others advance and manage familial and other social relationships through the context of the game. Thus SNGs and their requirement of dead-time provide families with tools to interact with one another, to feel connected on their own terms, in low-stake, leisurely and informal ways. In doing so games contribute to familial social bonds, not through creating a multiplayer synchronous environment in which to interact, but through the sending of requests, the sharing of advancement and creative acts, talk about games in other environments and a common topic of interest among potentially disparate individuals.

In sum, asynchronous gameplay can be considered as a potential booster to social interactions, even if the tools offered by games themselves for sociality (item requests and boast posts) are rightfully critiqued as socially deficient. This activity 'outside' of the game-space also raises questions about how best to classify it – is it still a part of play surrounding the game or is it something different? If players are actively using the tools provided – the paratexts of requests and wall posts – how then can we define the game-space, and its potential boundaries? Clearly early definitions of 'game' do not apply here, but more work on SNGs would be useful in exploring these questions.

Notes

- 1 There are SNGs that rely on synchronous gameplay, including strategy games as well as poker and other gambling games that have emerged, but the majority of the most popular SNGs are still asynchronous-play in their design. As of March 2014, the top Facebook game apps included *Candy Crush Saga* (#1), *Farm Heroes Saga* (#2) and *Pet Rescue Saga* (#5), none of which rely on synchronous gameplay with friends (Lafferty 2014).
- 2 For a detailed description of gameplay in SNGs, see Wohn, Lampe, Wash, Ellison and Vitak 2011.
- **3** Zynga's *Cityville* did attempt to link players' progress in some ways such as the inclusion of one player's 'franchise' in another player's city and their strategy themed *Empires & Allies*, which allowed players to gain strength from attacking friends. However, such elements are rare and non-existent in the currently popular *Saga* games.
- 4 For list of authors cited and theories explained, see pages 2–4. Available online http://www.digra.org/digital library/publications/and-then-you-wait-the-issue-of-dead-time-in-social-network-games/.

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Digital affection games: Cultural lens and critical reflection

Lindsay Grace

Affection games are a unique genre that requires players to flirt, hug, kiss or make love to meet their objectives. In a world that has an increasing number of human–computer-mediated interactions, affection games are a sociological novelty worth investigating. Affection games share more thematic and structural elements with adolescent play such as kissing games than they do with the traditional human computer interaction to which digital games are normally associated. Affection games have been studied by noted play theorist Brian Sutton Smith (1959) and anthropologists for decades, yet this new space of digital affection games has been the subject of very little research. Affection games represent an important departure from the simulation and computer graphics history often ascribed to digital games (Uriccho 2005).

It is easy to misunderstand affection games as a version of role-play or dating simulation. Affection games employ four key game verbs: flirting, hugging, kissing and sexual expression. Both dating simulation and role-playing games (RPGs) use a wider set of game verbs for which flirting, hugging, kissing or making love are secondary acts. Hugs and kisses in a typical dating

simulation are earned affections. A player is rewarded with the ability to kiss after appropriately courting a non-player character. A typical dating simulation requires players to navigate the complexities of a relationship with a variety of game verbs which may include joking, complimenting, purchasing, comforting, wooing and more.

In contrast, affection games place affection as the primary action in the game. Affection games involve interactions focused on one or more affections, whereas simulations are rich environments that emulate the complexity of the real world. A dating simulation does just as it states – it attempts to simulate. Affection games are much simpler. Digital affection games have more to do with a round of Spin the Bottle than a year of mating ritual.

The more than 1,000 recognized digital affection games are provided as web-based or mobile casual games. They are not designed for use on game consoles and they have rarely been considered for an arcade. Ostensibly they are marketed for young girls and women, as they abound on websites such as girlgames.com. They are small games with social features that are limited to sharing scores and commenting on their game experience.

This chapter provides an overview of the affection games genre, providing data about the design and implementation of such games. In particular, it examines the ways in which these casual games have been implemented and how they can be interpreted. In short, they stand both as record of a distinct affection fantasy purveyed through play and as an opportunity for critical reflection on cultural norms and values depicted in games. The goal of this writing is to provide a topographical overview of affection games which helps to explain their mechanics, dynamics and aesthetics (Hunicke, LeBlanc and Zubek 2004). Such study should inform game studies, game design and researchers seeking to understand how these unique games work.

Although affection games are largely constructed for simple entertainment, their designs demonstrate a unique and important departure from traditional digital games. This departure may be a harbinger for new modes of play among wider demographics. They may also be an indication of an emerging, social-emotional play modality. It is also reasonable to understand them as a temporary cultural oddity preceding an evolution of alternative play.

At the very least, affection games offer an interesting counterpoint to the many critics of video game violence. Such games resound as a kind of antithesis, championing hugs and kisses, instead of bullets and swords. Problems in these games are solved with affection. Affection games are more about spreading love than spreading blood.

The multiple histories of affection games

No history of affection games has been written. Instead, historical trajectories help illuminate the path that delivered the modern digital affection game. The clearest of these historical paths mirrors the growth of post-industrial-revolution leisure society. In some ways, the carnival midway (Brouws and Caron 2001) is the progenitor of affection games between humans and non-humans. In such environments, kissing booths and love testers were as common as feats of strength. These predecessors to arcade games were once commonplace among the dating culture of the midway (Kent 2001). The mechanical love tester eventually gave way to the mechanical pinball machines and digital arcade, becoming an almost forgettable artefact of the evolution of arcades (Kent 2001). Love testing and its related play moved to the pages of *Cosmopolitan* magazine in the form of quizzes that rate prowess, adventurousness and related attributes. These leisure activities were later substituted by web-based quizzes, evolving into the flash-based affection games which preceded the contemporary mobile affection game.

An alternative history places affection games more recently. This alternate history originates on the pages of racy pulp fiction and harlequin novels. As disposable medium, ripe with sexual fantasy, the covers of these stories promised more than their relatively tame internal pages delivered. Pulp fiction characters found their way into digital games for personal computers. The most notable of these was the progenitor of the successful franchise of Leisure Suit Larry (Sierra Online 1987). Online System's Softporn Adventure (1981), which provides the foundation for the later Leisure Suit Larry Series, provided the player with one goal - to earn the affections of several women. Each of the successive games offered a more comical take on the pulp fiction predecessors. Admittedly, Larry did less worrying about affectionate expression than meeting carnal needs as conquest. Larry did, however, validate such play by making it mainstream. The sexually explicit content of more underground titles for personal computers also provide subsequent developers legitimate examples to emulate. Such games include Interlude, the Ultimate Experience (Hogan 1981), a self-described game for the Apple II and TRS-80 computers users released in 1979. The game interviewed players and subsequently provided them with stimulating scenarios for fictive or real sexy scenarios.

Importantly, this lineage of affection games was never ported to the arcade. They shared the same experience as today's affection game, an at-home, somewhat personal experience. The fundamental problem with this second

history is that it can be argued that this is more clearly the history of dating simulations than affection games.

Yet a third historical origin can be understood in the varied affection games of varied cultures. Affection games have been the subject of some anthropological study, of which Brian Sutton Smith is most noteworthy (1959). Sutton Smith's study of affection games and plays helped frame cultural understanding in varied communities. However, their jump to digital experiences is harder to link, other than to note that some types of analog play are converted to digital play as a matter of convenience or marketing. The pre-digital affection games are commonly played in familiar groups allowing players to negotiate the bounds of play. This third origin explains some of the cultural demand for digital affection games, but does not clearly link the evolution from non-digital to digital.

These histories do demonstrate the duplicity of affection games. Where one history posits a very public and competitive affection, the other demonstrates the private, personal experience of affection games. One trajectory views affection as declarative, demonstrative and quantifiable (i.e. a score). The other is a personal, at-home adventure to be experienced in private. These are characteristics of the contemporary affection game. Players experience their games personally, with some allowing personalization, and all supporting the somewhat private playing afforded by mobile and web play. An e-sports tournament of affection games is an unlikely event.

It can be theorized that affection games may indicate a desire for computer games to fill the space once occupied by daily interactions with people: the human–computer interaction substitutes for the human–human interaction. Contemporary media has voiced this theory of affection space between human–computer interactions, making it the centrepiece of the Hollywood film *Her* (Jonze 2013) and flirting with this tension via varied science fiction plots such as Spielberg's *Al: Artificial Intelligence* (2001). Whether the product of growing affections towards the digital tools with which we interact daily or the indication of some human–human void needing to be mediated by computers, affection games are trending upwards. In March 2013 there were roughly forty affection games available on the Google Play app marketplace. By March 2014 there are more than 200 on that same marketplace.

Understanding affection games

The shorthand definition for digital affection games is that they require players to flirt, hug, kiss or commit sexual acts to meet their goals. In 2013 the author conducted a detailed study of affection games on the web, followed by a

similar analysis in 2014 of affection games for mobile devices. The following section highlights those findings to provide context for the subsequent review of the genre.

There are more than 1,000 games for which affection is a primary thematic or mechanical focus. The largest group of these are of a sexual nature, offered primarily on pornographic repositories or within clearinghouses for dating simulation. The spaces where these games are offered are not stable. Websites shut unexpectedly, games are added and removed without notice. Likewise, the Google Play Store discontinues such games and developers sometimes neglect their listings. Providing exact numbers on affection games is particularly tricky because the games are rarely made by large-scale publishers.

A large-scale analysis of the popular websites and app marketplaces was conducted to understand the catalogue of affection games. The app descriptions and self-reported genres were parsed from the Apple App Store, Google Play, Kongregate and New Grounds. The games were also played and subject to a content analysis. To get a more specialized view, the genre-specific websites GamesforGirlsClub.com, KissingGames.com and SexGamesFun.com were also included in the analysis. User profile data from Quantcast.com indicates that GameforGirlsCLub.com and KissingGames. com are dominated by female users, while the remaining sites were gender neutral or male-dominated. Both Kongregate.com and SexGamesFun.com have male-dominated user populations.

In 2013 the social gaming site Kongregate offered 211 affection games; 198 were kissing games, nine were flirting games and four were hugging games. Kongregate does not allow games with sexual content. NewGrounds. com offered ninety-four affection games; seventy-six of the games required sexual expression, fourteen kissing, three hugging and one flirting. Other affection game distributions for the sites are listed in Table 7.1.

For mobile games, the number of affections games available on Google Play far exceeds the games available for Apple iOS devices. Neither Google Play nor Apple iOS allow for sexually explicit content. Occasionally such content does sneak through filters, but the games do not last long before they are flagged and removed. As such, sexual expression in mobile games cannot be examined accurately through either of these mobile marketplaces.

As shown in Table 7.2, by April 2014, Google Play had 234 affection games. Apple had thirty-eight. There are two factors that contribute to this difference. First, Apple's application review process is more stringent and critical. Second, many of the games on Google Play are conversions of Flash games that were already popular on the web. In some cases, these Android ports are not officially licensed by their original developer.

	Kongregate. com		Games forGirlsClub. com	Kissing Games. com	SexGames Fun.com
Flirt	9	1	80	0	9
Hug	4	3	0	0	0
Kiss	198	14	250	96	1
Sexual expression	0	76	0	0	850

Table 7.1 Web affection games by primary focus

Table 7.2 Mobile affection games

	Google Play	Apple App Store
Flirt	7	3
Hug	7	2
Kiss	220	33

Affection games sales and distribution are not reported by the leading statisticians in the industry (e.g. NPD Group). As a genre, affection games are relatively small set of total mobile game sales. It is, however, important to note popular affection games achieve millions of plays. Popular games such as *Kiss Baby* (JiaQing 2013) on Google Play achieved more than 1,500 average daily downloads in a single day over its one-year history. Games in the web space record more than 1,800 comments and boast higher daily play rates than their mobile equivalents.

Categorizing affection games

To understand affection games it is useful to use a few simple categorizations. The primary dichotomy is between intra-game affection and extra-game affection. Intra-game affections are wholly contained within the game's digital world. In these games a player presses a button, taps a screen or other common

action to initiate an affection inside the game-world. The acts of affection are typically between two or more digital surrogates within the game-world. Intra-game affection is most often between player character and non-player characters. *School Flirting* Game (Girls Go Games 2009) and *Princess Kissing* Game (TheSexyApps 2014) demonstrate a typical intra-game affection.

Intra-game affections are more common than extra-game affections. Extragame affections require players to commit an act of affection from outside the game-world to affect the in-game world. Common actions include players kissing a touch screen (Critical Gameplay 2013) or players hugging a stuffed toy (Critical Gameplay 2012). The four game verbs within the affection genre also serve as a good way to categorize the games. Therefore, affection games can be labelled as hugging games, flirting games, kissing games and games involving sexual affection. Each of these labels can be further clarified by intraor extra-game-player expression. As demonstrated by the number produced, it is clear that kissing games are the most common mainstream affection game.

Kissing games

The two most common kissing game formats are intra-game sneaking kisses and extra game kiss testers. Of all the kissing games, sneaking kisses is the most common. The scenario is typically two characters who want to kiss, but are hindered by some outside force. Players must sneak kisses when the boss isn't looking in *Office Love Kiss* (MugaGames 2014), the mall security guard looks away (GirlGoGames 2008) or while the birds and bees are distracted in *Will You Marry Me* (Slix Media 2010). Kissing in these games is overwhelmingly romantic and heteronormative (Grace 2013). Even when non-human characters are involved, affection is between a blue unicorn and a pink one in *Unicorn Miracle* (Spil Games 2013) or a jewellery-adorned smaller pink kitten and larger, unadorned blue kitten (*My Kitty's Kiss 2* 2009).

Extra-game kissing games are similar to modern kissing booths and kiss testers. Players place their lips on a mobile device and are scored on the quality of the kiss. The game *KissTester* (2014) is a typical example of such play. As a subgenre, the kiss tester is in itself dichotomous. The games are either romantic, emphasizing a sensuous kiss or adoring, emphasizing a quantity of kisses. *Stolen Kisses* (Critical Gameplay 2013) is a good example of the sensuous kiss, while *Baby Kissing* (JiaQing 2013) emphasizes the adoring kiss.

No other affection game type has this tension between sensuousness and adoration. No other affection game type has this large a population of extra-game interactions either. The range of kissing games is likely a result of a larger audience. As the largest non-pornographic of affection game genre, kissing have the most diverse play.

Sexual expression games

Sexual expression games are the most diverse in content, depiction, style and theme. They are arguably the largest group of affection games, although defining sexual affection is problematic. Many of the games focus on heightening the non-player character's pleasure. Games such as *A Really Great Night* (Sangwiched 2007) demonstrate the simplest side of sexual affection games. A more sardonic example can be found in MolleIndustria's game *Orgasm Simulator*, designed to help women practice faking orgasm (2004). The games vary from highly graphic to relatively abstracted. They also range from the literal to the more expressive.

Clearly, not all that is sexual is affectionate. There are more than 800 games whose focus is sexual acts. With more than 800 sexual affection games on mobile devices and the web, it is admittedly inappropriate to skip their analysis. It is also important to understand that sexual affection is difficult to study in games. Depiction of sexual activity is complicated by cultural encoding and framing. Censorship and the abstract borders of pornography, make formal analysis even more complicated. For this reason it is tempting, although not particularly academic, to gloss over sex as an act of affection and a subset of the affection games domain.

It is important to understand that much like the pornographic film industry, which may produce many films of varying quality and content, sex games run the gamut from extremely amateur productions to well-funded enterprises. The cultural reference for some of these games is Anime- and Mangainformed. Others are whimsical and sophomoric. Discerning the affection play from within the wide range of sex games is simply too large for the scope of this topographical analysis. The topic is also loaded with cultural complexities that require expansive cross-cultural subject matter experts.

It is also important to note that when these games are provided through pornographic venues, many of them conflate physical and mental violence. In the worst of these games, non-player characters are held at gunpoint and made to do sexual acts. In such games, which represent a kind of rape fantasy, there is no affection. Yet, a close reading or well-played session with such games does provide complication in the definition of affectionate act. Such games may end in a pleased non-player character and hints that the scenario may have been part of a mutually agreed fantasy role-play (e.g. a fuzzy handcuffs scenario).

From the author's perspective, these are largely not affection games. These are violent games full of enactment of deplorable acts. Yet, from another cultural lens these games may be less objectionable than the public display of romantic affection to another culture. As such, the topic of sexual expression

in affection games must be considered carefully. The specific borders for this space vary enough between cultures that their definition would require an additional chapter in the least. It is sufficient to define sexual affection games as games in which sexual acts are explicitly referenced through image or player action and for which affection is the communicated motivation for such acts.

Flirting games

Flirting games are typically about collecting admirers. In these games score is kept by attracting the most people. The games work similarly to shooting games, where players must flirt with the right type of non-player character to win. If a player flirts with the wrong kind of person, typically a geeky male or person of the same sex, they lose points (Girls Go Games 2009).

In the hundreds of affection games reviewed, no game in which extragame flirting occurs was found. It is also worth noting that while a flirt is a fairly nuanced activity, most flirting games are quite the opposite. Non-player characters are effectively zapped by the alluring wiles of the player character and fall listlessly under the player's control. The games also do not depict a volley between flirters, but instead align flirting with a game of tag. Once a flirt is cast, its spell is only broken by failing to continue to flirt. This model of flirting provides for interesting fodder in cultural analysis. Flirting games often represent the first step in romantic affection. In the implied narrative of many games, kissing games and sexual expression games are preceded by some initial flirt.

Hugging games

Hugging games are the rarest of the affection games. They are especially rare as the primary game mechanic. Games such as *Hug the Sloth* (Proletariat 2013) actually have nothing to do with hugging at all. Instead, hugging is often the achieved result of a job well done. In a matching game *Teddy Bears in Love* (Best Games 2 Girls 2012), a player's secondary verb is a hug, which is only available after players align Cupid's arrows appropriately. In web and mobile games, hugs are noticeably absent. Instead, the most prevalent hugging games exist as art installations and design concepts, as in *Big Huggin* (Critical Gamepaly 2012) and *Hugatron* (Spilt Milk Studios 2013).

It can be speculated that hugging does not translate well in the medium, an argument quickly corrected by a review of kissing games. It could also be argued that the hugging rests uncomfortably between the romantic and the non-romantic. A romantic hug is present in the Western tradition of affection, as is the supportive hug, the familial hug and other variations.

Unlike the other affections, hugs do not hold the romantic aspirations of a great kiss or the power of flirting the world under your spell. The first hug has never made its way into memorable movie moments, but the first kiss has. Likewise, few movies climb to climax with an adoring hug. These are of course speculations. In short, there is no clear reason why hugs are so rarely the subject in affection games.

The cultural lenses of affection games

While there are several perspectives through which affection games can be interpreted, it seems most productive to understand them as a phenomenon of escape and fantasy or as an artefact of play to interpret culture. These games demonstrate specific gender roles and dynamics, perspectives on affection and a cultural mindset about where, how and between whom affection is expressed. These characteristics express themselves in the scenarios and game environments chosen, in the way the games describe themselves and the ways in which they position themselves in relation to other media such as their relationship to film, books and the Internet.

Escape and fantasy

Understanding affection games as fantasy is more complicated than simple escapism. While many games do provide fantastical images of unicorns and hugging teddy bears, the fantasy ends there. The games are often subject to the same real-world pressures. There are authority figures who threaten the instant joy of a kiss. There are people who want to turn the romantic scenarios into a Romeo and Juliet tragedy. It is this dose of external pressure that makes the games compelling and creates their challenge. They are not absolute fantasy, they are real fantasies. They thinly veil the adolescent stresses of conformity, social hierarchy and the desire to convey affection.

This tension is most apparent in the sneak-kiss games. Their settings range from mundane street corners to fantastic spaces. The games themselves are realistically only differentiated by place. *Rainy Big Damn Bridge* (Dressup Games 77 2013) shares the same mechanics with *Kissing on a Ferry* (Girl Games 123 2012) or *Risky Motorcycle Kissing* while it's in motion (DressUp Gal 2012). The fantasy, it seems, is limited to where, not why or how. These are simple situational fantasies. There is little fantasy around who. The escape is the where.

It is also important to note that these are also cliché fantasies, representing a kind of standard. They are shared if not prescribed escapes. Women kiss bad boys on motorcycles, in convertibles or in the stables. The challenge comes from overweight nannies, old crotchety horse owners and bald all-business bosses. The forces that avert these affections are the old guard. They are not peers, they are authority figures who seem to have one aim in their digital lives – to prevent players from scoring. They are never as attractive as the players and never as interesting. They appear when things are getting hottest and disappear once it cools.

Interestingly, even when these antagonist elements are non-human, they are constantly admonishing. The most novel of these is a game called *Will You Marry Me* (Slix Media 2010) in which players need to make sure that birds and frogs do not catch them in a post-proposal embrace. It seems even when the birds and bees are involved, the birds, at least, reign over couples ready to prevent their affections.

But some affection games have a more alarming undertone. *Jennifer Rose Babysitter in Love* (Noname Lab) requires the player to babysit children while still pleasing her boyfriend who interrupts her job. The balancing of boyfriend and baby is not a fantasy at all, but a kind of chore where two non-player characters strive for the player's attention incessantly. It's a small-scale *Diner Dash* with all the challenging feminist conflicts (Chess 2012), which is why it is also beneficial to explore and interpret affection games with a critical lens.

Critical cultural reflection

The ways a culture chooses to play speaks volumes about its values, anxieties and aspirations. Digital games can be 'a reflection of the cultural imagination' (Nakamura 2013, 55). Just as science fiction film and books reflect contemporary anxieties around technologies or social malaise, games encode such elements through designers and for players. Games are a series of problems, imagined by a designer and solved through the game verbs the designer affords.

From a positive perspective, affection games reflect a desire to provide more affection. If games are considered cathartic release, then such games could be understood as the cathartic release of a society yearning for more affection. If the adolescent expresses their pent-up rage through the repeated destruction of a non-player character in a first person shooter, could it not be asserted that the player of an affection game is putting action to their pent-up desires to flirt, hug, kiss and make love? Ferguson et al. have indicated that catharsis-seeking behaviour is linked to stress and innate traits (2010). In

short, if extended to affection games, players may be seeking such play as stress relief from pent-up desires related to expressing affection. Accordingly, affection games are a reflection of a desire to express, if not participate in, more affection.

On the other end of the spectrum on violent play are the researchers who in summary see a link between what players practice in games and what they demonstrate after playing the game (Griffiths 1999). In studying the effect of violence, they find children who play violent games demonstrate more aggressive free play. From this perspective, when applied to affection instead of violence, players are flirting, kissing, hugging or making love as practice for outside of the game or at the least, for future aspiration towards expressing affection. In short, these players are expressing affection in games to someday unleash this pent-up and practised energy on the outside world. Either view is the logical trajectory of extending the aforementioned fantasy play into a sociocultural reflection.

The games also exist as a kind of cultural reflection of value. The play in these games is not a departure from the conventional world; it is an affirmation of it. This is easily translated as aspirational play. In the same way that children play house or war, the players of affection games are practicing affection. The social rules are explicitly encoded in the games and the players of such games are aspiring to meet those rules. The rules aren't opposed to kissing for example, merely getting caught. Clearly the fun is in playing, but importantly, the anxiety and fear of getting caught is also part of the fun. Without the threat of getting caught, there is no challenge.

The notions of aspirational play are further reinforced by the subjects and situations of many affection games. Where human or anthropomorphized creatures are shown, they are sharing their affections with the best candidates. If it is romantic, the player must flirt only with the popular people (Girl Go Games 2009) or kiss towards the greatest recipe (Zet 2014). The game descriptions even return to the love testers of their origins, helping players practice a great kiss (Zet 2014). The games acknowledge their intersection with the non-game world, even when they are fantasy.

What then does it mean to have a game in which a woman player character is always tending to the baby she must care for and the boyfriend who wants nothing but to kiss her? Such games can be read as reflective or prescriptive. They replicate a real-world tension that plays itself out in households daily. But the game also prescribes a limited number of solutions. Players cannot break this cycle. The boyfriend does not bother to help. He only concerns himself with his own needs, while the player character is constantly bound to this unsustainable balancing act (*Jennifer Rose: Babysitter in Love 2*).

Such games then cease to remain mere reflection; they become a kind of practice. This type of productive play, where gender roles are reflected and enforced through incessantly taking care of others, is the heart of Chess's understanding of the gender divide in play (2009). From this perspective, players are not enjoying cathartic release, but instead practicing as training for a future or present. The key questions then become how much of the world of such affection games is imagined, how much of it is affirming existing roles and how much of it feeds a cycle of affirmation that limits the imagined.

Conclusion

Affection games are a growing genre within the diversifying landscape of digital play. These games remain a relatively niche experience, as none of the major game developers have embraced the genre. Independent developers, prone to taking design risks and experimentation have been at the heart of affection game growth. Affection games do provide an engaging view into gender and fantasy from the safe space of play. They also provide a counterpoint to the violent play stereotype that many non-players attribute to games. They are of course full of their own complications and cause for alarm, but their growth seems to indicate either a shift in demographic or a shift in player desires. It is particularly interesting as a new form of human-computer interaction which has its history in the behind closed doors of human-human interactions.

There are several common affectionate acts that are not typically offered in affection games. These include the hand holding, common to some African cultures as well as the Western tradition, and bowing. While it is not clear why such affections are not common to the affection games genre, it's reasonable to recognize that such affections may not offer the high impact experience and visual clarity that kissing or making love may offer.

While the communication of affection varies widely around the world, affection games are largely unified in their depictions. They typically emulate the romantic and sexual affections demonstrated in popular Western media. Their focus is whimsical flirts, friendly hugs, moonlit kisses and passionate sex. They are rarely critical of these acts, instead affirming the sociocultural standards. It is this lack of critical distance that provides new game designers with a clear inroad to new pro-social play. The relative dearth of research into affection games also affords game scholars an opportunity to understand an arguably unique-to-games genre. At the very least, affection games represent a divergence from the simulation era of games to one that is more squarely focused on affection as a solution.

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Mobile games and ambient play

Larissa Hjorth and Ingrid Richardson

From *Tetris* and *Angry Birds* to location-based service (LBS) multiplayer games such as *Ingress* and gamified apps such as *Foursquare*, mobile gaming has changed dramatically in an age of smartphones. In this chapter we explore the notion of ambient play as a way to critically interpret the complex and diverse practices emerging from our mobile game practices. We suggest that ambient play enables a flexible and open approach to games and playfulness more generally, as it effectively incorporates the various ways we engage with and embody mobile games in our everyday lives, deliberately moves beyond the problematic ascription of the term 'casual' to mobile games, and conveys the way mobile media are part of a lusory sensibility in contemporary culture. In this chapter we consider the way mobile apps, services and games are embedded in our day-to-day lives, and suggest that we might effectively interpret such engagement as a type of ambient play.

Ambience is often used to describe the effects of sound and music, but has also been used in the discourses of computing and science, especially human computer interaction (HCI) (Dourish 2001; Bayliss 2007). As a noun, it specifically refers to a style of music with electronic textures and no consistent beat that is used to create a mood or feeling, but more generally the term describes the diffuse atmosphere of a place. There are many features

of gameplay that are ambient – most explicitly the soundscapes that play a pivotal role in developing the mood, genre and emotional cues for the player. And yet, like ambience, the importance of sound is relatively overlooked in games studies despite its pivotal role in player engagement and embodiment. What constitutes our sensorial involvement with mobile games – especially as they travel across different modes of presence, engagement, distraction, online and offline spaces, while potentially being on the move – indicates that a more robust and expansive understanding of ambience as a mode of gameplay is required.

Ambience is thus not only – or even primarily – an aural experience, but also discloses a game's texture, affect and the embodied modality of the player. As we have argued in other work, interpreting mobile gaming as ambient play 'contextualizes the game within broader processes of sociality and embodied media practices' and defines play as something that takes place both in and out of games, reflecting broader cultural nuances and phenomena (Hjorth and Richardson 2014, 60). Ambience also conveys the way games infiltrate our social and emotional lives, afford particular sense perceptions and impact upon our movement through domestic and urban spaces. All of these things work to diversify our experience of co-presence, of being-with-others; indeed, co-presence in its various forms and combinations is an important part of the ambient texture of gameplay and is what makes online games so compelling.

In order to address the notion of ambient play as central to the motivations and meanings ascribed by players to gamified and lusory media, this chapter examines some key issues at play. First we reflect upon the relationship between place and movement with special consideration for play as part of broader embodied practices (Pink and Hjorth 2013). As we argue, in order to understand ambient play we need to situate it within broader entanglements of location and place that are always in motion. Just as ambient play draws on a sense of embodied practice as part of broader social and sensorial experiences in-the-world, this chapter reflects upon how we might situate ambient play within broader place-making practices and culturally inflected habitudes.

The chapter then explores the idea of plural co-presence as a productive rubric for conceptualizing the various modes of being-with that are manifest within everyday life. Co-presence can be experienced as spatially and temporally dispersed, across online and offline, here and there, now and then. Here we consider co-presence as an important aspect of our perception and negotiation of ambient intimacy and mobile play. In this section we also investigate notions of play beyond the 'game/play' conflation often found in discussions of games. We argue that central to the logic of mobile games has been their degrees of ambient play; that is, the way they enable a reflection of

inner subjectivities, resonate within and around the interstices of the everyday and generate multiple forms of engagement, distraction and reflection. We then consider how the rise of smartphone apps amplifies particular forms of embodied engagement in the form of ambient play.

Ambient places: Locating the mobile

Ambient play reflects and embeds the ambience of place. In other words, ambient play is a term that describes the significant and yet often tacit, unofficial and incidental forms of creativity, play and communication that surround mobile gaming practices in situ. The convergence of mobile-, social-and location-based gaming expands the possibilities for ambient play across a variety of everyday contexts. In a world that is increasingly 'appified' (i.e. mobile apps available for an increasing range of life activities) and gamified (i.e. the interweaving of game principles into non-game contexts) it is important to acknowledge the spaces of unofficial play – often unscripted, fluid and intrinsic to existing social networks – that reside within and around the more formal modes of gaming.

People and things have always been mobile – that is, in movement. As theorists within human geography mobility studies have argued, motion is our primary ontological condition. Doreen Massey argues: 'you can never simply "go back", to home or to anywhere else. When you get "there" the place will have moved on, just as you yourself will have changed' (2005, 124). In this sense the concept of movement offers a way of understanding how both our 'being-in-the-world' and the lived environment is fundamentally dynamic and mutable. Anthropologist Tim Ingold has written about movement of this kind using the trope of the line (Ingold 2007), arguing that we need to develop an understanding of place as that which is always in motion. In order to do so, Ingold redefines the notion of 'locations' as a series of places-to-places that are always in movement with trajectories entangled across various modalities of perception and affect. Within mobile communication, theorists such as Amparo Lasén have from the outset articulated the relationship between movement and emotion (2004), pointing to the way mobile media devices operate as repositories for the emotional and intimate. As Lasén notes:

Mobility is part of the original sense of the notion of emotion as it refers to agitated motion, mental agitation or feelings of mental agitation. Emotions are those mental states called 'passions' in the past. An important feature of the affects depicted by the category of passions is the idea that they

entail ways of being acted upon, of being moved by other beings, objects, events, and situations. Nowadays people are moved and acted upon by their mobile phones. Mobile phone uses are the result of a shared agency. (Lasén 2004, n.p)

As both a symbol and set of practices, mobile media are distillations of contemporary forms of intimacy and mobility (Fortunati 2002; Lasén 2004). Leopoldina Fortunati and Jane Vincent have made this important connection between movement and emotion and suggest that this is why mobile phones have been so successful as repositories and vehicles for intimacy and affect (2009). This link – that is, the marriage between movement and emotions – is important when thinking about ambience. Whether through sound or through haptic effect, the ambience of a game is its ability to traverse inside and outside the official game-spaces, weaving emotion and affect through our embodied experience of play.

Placed against this backdrop, where movement and emotion are intrinsically interwoven in mobile media use, we see ambient play as a key modality of mobile gaming through the negotiation and enactment of mobility, play, intimacy and co-presence. The concept of co-presence deliberately conceives of presence as a spectrum of engagement across multiple pathways of connection – and thus goes beyond counter-productive dichotomous models of online and offline, here and there, virtual and actual. The concept also allows us to connect the contemporary with the historical in terms of the evolution of mediated intimacies. In particular, with the rapid rise of the smartphone touchscreen and app-based media ecologies we are seeing a plethora of new ways in which co-presence and the practices of place-making are managed and maintained. Since the emergence of iOS and Android devices, the convergence around social, mobile and locative media has been as rapid as it has been uneven, providing new platforms, contexts and media in which the politics and practices of mobility can be explored.

In order to understand the relation between mobility and play, we need to define place as part of what Massey calls 'stories-so-far' (2005) and see place-making processes as entangled across numerous modalities of presence. Increasingly place – as something lived and imagined, physical and yet psychological – has been further complicated by mobile media practice (Wilken and Goggin 2012). Mobile technologies highlight how domestication processes – especially in the form of 'placing' and various forms of co-presence (Richardson and Wilken 2012) – are increasingly occurring outside the physical locality of the home. They represent new relationships between home and away (Hjorth 2012). In their post-phenomenological discussion of place, Richardson and Wilken define the role of place within movement as a series

of 'placings' across a variety of states of presence: net, co, tele and absent, among others (2012). In this chapter, we reflect specifically upon co-presence and ambient play within the context of the mobile turn.

With the convergence of locative, social and mobile media, mobility and intimacy take on new significance in the negotiation of location and co-presence. In the next section we explore the entanglements of connected presence, ambient intimacy and mobile play. As noted earlier, understanding the complex dimensionalities of presence across various forms of intimacy and mobile play is essential to comprehending the nature of contemporary ambient play.

Co-presence, ambient intimacy and mobile play

Literature concerned with co-presence within mobile communication fields has flourished with the work of Christian Licoppe and Mizuko Ito and is a productive way of rethinking traditional binaries that are no longer adequate descriptors of everyday life. Binaries such as here and there, virtual and actual, online and offline, absent and present have been eschewed through mobile media practices. Moreover, the rubric of co-presence provides a broader context for understanding intimacy and mediation as something that is not only a late twentieth- or twenty-first-century phenomenon, but also an integral part of being social and human (Mantovani and Riva 1998). In this genealogy, intimacy has always been mediated, if not by technologies, then by memories and language. In this context we can see how mobile media co-presence enacts similar practices of 'distant presence' as the nineteenth-century postcard (Hjorth 2005; Milne 2010).

The critical interest in the concept of presence spans various disciplines such as cultural studies, media studies, anthropology and philosophy, among others. With the rise in computer-related disciplines such as HCI, CMC (computer-mediated communication) and mobile media, presence has again taken on a heightened importance to describe various states of embodiment and engagement across multiple platforms, screens and contexts. This has lead new media anthropologist Anne Beaulieu to argue that ethnography should be concerned with co-presence rather than co-location (2010). Broadly defined, in the current context, presence can be understood as referring to,

the degree to which geographically dispersed agents experience a sense of physical and/or psychological proximity through the use of particular communication technologies. (Milne 2010, 165)

While presence has always involved different types of mediation, with mobile media the plurality of presence becomes key to understanding the ways in which intimacy and a sense of place are negotiated. Previous studies by Richardson and Wilken (2012) apply a post-phenomenological or 'technosomatic' approach in an exploration of the 'complex and dynamic range of place interactions and differing modalities of presence'. Central to these engagements is the issue of distraction - that is: 'how our attention becomes divided when we speak on the phone, send or receive a text message, or play a game on the mobile' (Hjorth and Richardson 2011, 115). This occurs in ways that involve a canny and subtle form of 'environmental knowing' that is attuned to both the specific requirements of mobile gameplay while retaining a 'crucial peripheral awareness of one's spatial surroundings' (Hjorth and Richardson 2011, 115-16). As Aguado and Martinez (2014) point out, smartphones and tablets are now thoroughly embedded in habits of 'coordinated multi-screen use', further complicating the modes of presence we experience across devices, online and offline contexts, spaces and places. Thus we argue that, at a perceptual level, complex modalities of awareness are at play:

The 'sensing' of mobile communication and interactive media elicits an intimately audio, visual, sometimes haptic, 'handy' and visceral awareness, a mode of embodiment which demands the ontological coincidence of distance and closeness, presence and telepresence, actual and virtual. (Richardson 2005, n.p)

Yet although the role of mobile devices in amplifying playful moments has been identified by many scholars and, despite the importance of play in many facets of human life, the broader relation between mobile media and play has been relatively under-researched, with much of the attention housed in education (Sutton-Smith 1997), psychology (Csikszentmihalyi 1990) and game studies (Salen and Zimmerman 2004). This has led many to return to 'classic' play texts such as Huizinga ([1939] 1955) and Caillois (1961). However, Sicart's aforementioned text on Play Matters identifies the importance of play in all facets of life and thus engages play in a much more rigorous debate that moves across all disciplines (2014). As Sicart notes, while play involves rules, playfulness is about an attitude. And it is the playful attitude which is key to understanding contemporary culture especially with the all-pervasive rise in gamified media. As de Souza e Silva and Hjorth (2009) note in their discussion of location-based mobile games, the creative micro-resistances enacted by mobile media play can reveal complex nuances of presence and intimacy as they become interwoven into our daily routines and communicative practices. It is this intermingling of quotidian life and playfulness, as it realized in our ongoing embodiment of mobile interfaces, that we call ambient play.

Ambient play, especially when enacted on our intimate and locative mobile interfaces, recontextualizes gameplay as part of our broader embodied experience of being-in-the-world. The concept also indicates the pervasiveness of play in everyday life, and so effectively works to break down other dichotomies, such as the distinction between casual and hardcore gaming (Richardson 2011; Taylor 2012). As Christensen and Prax note in their discussion of *World of Warcraft (WoW)* mobile apps:

The traditional/hardcore versus mobile/casual dichotomy was rooted in older technological forms. Moves from desktops to laptops to conventional mobiles and to smartphones for the purposes of gaming have all impacted understandings and definitions of gamers and games. (2012, 732)

Mobile games, epitomizing the logic of ubiquitous computing, mess up neat distinctions between online and offline, official and unofficial play. The magic circle is no longer adequate to describe the permeability of play within the context of mobile media. As Dourish and Bell note, it is important to engage with the intrinsic messiness of ubiquitous technologies (2011). Historically within game studies, the magic circle has frequently been adopted as a way to explicitly demarcate game from non-game elements and play from 'reallife'. Over the past decade, however, game theorists have questioned this overly discrete, deterministic and artificial notion of the magic circle from a number of different angles, arguing that we need a broader, messier and more flexible description of game parameters and practices. Castronova (2005), for example, uses the term 'porous membrane' to illustrate the enmeshing of game and non-game practices, while Taylor (2006) describes online gaming as 'play between worlds'. This boundary collapse is especially evident in mobile games and is in part due to the specific convergent qualities of mobile media. What we might call the ambient effects of mobile smartphones eradicate the notion of the magic circle. As Moore notes, 'magic circle' proponents would arque that:

. . . the player cannot 'play' Angry Birds, or Tetris, or World of Warcraft outside of the magic circle, and yet mobile media, pervasive web access and the participatory elements of popular culture suggest the boundary between the game world and the real world is not only gossamer thin and permeated in both directions, but practically indistinct. (2011, 376)

The movement and blurring between online and offline spaces enacted by mobile gaming as part of its ambient playfulness, exemplify what Salen and Zimmerman (2004) call games' 'cultural environments'; that is, the context that encompasses both gameplay and the paratextuality that surrounds it. In this sense, we can see the erosion of the magic circle in the ubiquity of mobile play as part of a more expansive cultural turn. Together with our shift to mobile and its attendant app ecology, the emergence of user-generated or 'small media' content creation, participatory media and the proliferation of game elements in social media apps and services, have brought about a playful or 'lusory sensibility' en masse. In the following section we focus on the mobile app as an agent of ambient and paratexual play.

App ecology and ambient play

Since 2008, which marked the opening of the App Store, mobile applications have broadened the spectrum of mobile gaming to include playful social media and location-based apps and services. In mid-2013 Apple counted down to the 50 billionth download, while Google Play counted 48 billion; as listed in the App Store, most of the twenty-five top-paid apps are games. Like being 'online', playing games has become normalized, along with numerous other app-based activities. This playfulness is both intrinsic to the consumption of apps and participatory media, but also embedded in the very process of innovation and development; as Goldsmith notes, a global survey of 5,000 mobile game developers 'found that revenue was a goal for only 50%, with creativity or sense of achievement a motivation for 53% and the "fun of building an app" motivating 40%' (Goldsmith 2014, n.p.).

As Aguado and Martinez (2014) note, mobile app ecologies have worked to render the category of media entertainment ambiguous, such that there is a collapse of content categories across images, videos, music and games, and cross-fertilization of modes of engagement, including creative content production, social networking and play. This is evidenced, for example, by ringtone editing apps, photo-sharing apps and services such *Instagram* or *KakaoStory* and the integration of 'game elements' into location-based social networking apps such as *Foursquare* (Frith 2013). The acquisition of *Instagram* by Facebook in April 2012 (Goldsmith 2014) is an indication of this kind of hybrid media environment and the infusion of playful photographic practices and creative applications into social networking activities and services. With the ecology of apps, the consumption of entertainment frequently involves not only the invocation of information, but also the evocative, affective and sociocultural processes of creativity and participation in quotidian life. Thus for example the *N app* is:

A free app including three songs that allow the user to interact with them changing lyrics, instruments or singers involving direct interaction, GPS location and time of the day. The user can thus create his or her own versions of the songs, exploring a wide number of possible combinations as the songs adapt to the daily routines of the user. (Aguado and Martinez 2014, n.p)

As Aguado and Martinez argue, mobile media – through the growth of applications – lie behind 'a re-definition of the very nature of entertainment content itself'. The integration of mobile apps, the web and traditional media involves a merger of media consumption (conventionally, watching and listening) with both the interactivity of participatory digital media and the personalization and intimacy of social networking services and social media.

Although mobile games are often problematically categorized as casual games, as Keogh notes: 'a casual game does not simply offer an easier or more shallow experience than a traditional video game, but an experience that is more flexible with the player's time, more easily incorporated into the player's everyday life' (Keogh 2014, n.p.). It is this flexibility and ease of incorporation, especially when adapted to mobile social media games or involving the insinuation of game elements into an application or service, which so thoroughly instils mobile games into the routines and habits of our social lives. For Frith, the way that mobile apps interweave digital and physical information to create hybrid spaces impact upon 'spatial legibility' or the way urban environments appear as 'coherent and recognizable' patterns (2013, 250).

In mobile-social-locative services such as Foursquare and Jiepang, this new spatial legibility takes a playful turn. The playful locative media service Foursquare has a purported 30 million users and combines GPS functionality, location tracking, navigational maps and user-generated firsthand recommendations of 'the best places to go' (a palimpsest of personal mini-narratives of place) that can also intersect with friend networks and consumer rewards. In his study of Foursquare players, Frith explores the effect of the 'ludic layer' (257) within Foursquare and how the service effectively turns 'life into a game' with the incorporation of digital game elements into the physical experience and traversal of place (249). In this way, Foursquare can both 'encourage mobility and provide new ways to construct identity through location-sharing' (Frith 2013, 257). The spatial legibility specific to Foursquare prioritizes the end destination over the pathway; that is, the ambient sharing of specific sites or places (cafés, bars, libraries) rather than the navigational nuances particular to one's pedestrian or vehicular journey.

And yet, as seen in the case of the LBS *Jiepang* in China, against the networked destination focus of the gamified *Jiepang*, respondents use camera phone photo-taking and sharing to emphasize the importance of movement through different localities and temporalities (Hjorth and Gu 2012). The unofficial role of camera phone images soon became the main motivation for users, so much so that *Jiepang* rebranded itself to address this phenomenon. Through geo-tagging, temporality is highlighted, and through the aesthetics of the images, the ambience and flavour of the locations in movement are depicted. In the case of *Jiepang*, ambient play – that is, the intertwining of co-present intimacies through emotional textures of embodied play – motivates the various unofficial forms of playfulness that 'realize' the game in new ways unintended by the designers. As is typical of mobile media, users often take up applications in ways that are unconceivable for the makers, but it is this unruly creative adaption on behalf of the user that brings culturally specific affectivities and socialities to the interface.

Conclusions: Playing in the background of life

In this chapter we have explored the notion of ambient play as integral to the messy logic of mobile games as they move across physical, geographic, electronic, technological and emotional domains. Moving away from notions of the magic circle towards an idea of ambient play allows us to think through this complex socio-somatic weave within the messy space of ubiquitous technologies. Through the rubric of ambient play as the intrinsic and affective texture of mobile gaming, we have sought to think through a notion of ambient as not simply or primarily aural, but as thoroughly embodied, situated and social. This chapter has sought to develop a flexible apprehension of these multiple forms of engagement and embodiment beyond the inadequate notion of 'casual' play and its conflation with mobile games. Instead we have forwarded the idea of ambient play as a way to articulate the messy logic of games, creativity and play in contemporary mobile and participatory media culture.

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Affect and social value in freemium games

Fanny Ramirez

The number of casual players has increased significantly thanks to the growing popularity of social games for mobile devices and social network sites (SNS) (Alha et al. 2014; Wohn 2014). In matters of seconds, games of various genres ranging from puzzle to strategy can now be downloaded onto a device from any location as long as it has Internet access. Casual games are generally set in colourful and pleasant environments, have simple mechanics, provide a lot of positive feedback and don't require extended time commitments (Juul 2010). Casual games are also referred to as social games because they often have built-in structures that allow players to interact ingame with their SNS or mobile phone contacts (Hou 2011). These features make them appealing to a broad audience of players and have forced scholars to reevaluate what it means to be a casual player (Juul 2010).

The freemium model, also known as the free-to-play (F2P) model, after encountering substantial success in the massively multiplayer online role-playing game (MMORPG) genre, has become the go-to model for many casual mobile, tablet and SNS gamers (Eldridge and Neal 2015). This chapter analyses the ways in which freemium social games, such as *Tap Fish* and *Candy Crush Saga*, are specifically designed to appeal to casual players and to incite the spending of real money in exchange for virtual goods or

services. Drawing on Juul's (2010) analysis of the game characteristics casual gamers find most attractive, I posit that positive feedback in the form of 'juicy' graphics and stimulating sound effects is used in conjunction with 'free' marketing strategies to produce affect in players and create new subjectivities of consumption. Furthermore, using critical theory about affect and immaterial labour, I explore how players are invited to perform various forms of affective labour in freemium games and how game companies turn these player-generated social values into real-world capital.

The history of the freemium model

Freemium or F2P games can be downloaded online at no cost from application (app) stores or SNS. While there may be no initial acquisition cost with F2P games, in order to access certain game content, players often have to pay a premium fee in the form of real money transactions. This concept is reflected in the name 'freemium' itself. Coined by Jarid Lukin and Fred Wilson, this neologism merges the words and meanings of 'free' and 'premium' to reflect the characteristics particular to its business model (Pujol 2011). Companies that develop freemium games rely on the monetization of virtual items, currencies or services to generate revenue and permit the general free distribution of their product (Wohn 2014). In other words, some players have to spend money so that the system can support non-paying users.

The rise of the freemium model can be traced back to a larger shift in consumer demands caused by the growing popularity of digital distribution and easy access to Internet services. The image-hosting service *Flickr* and its paying version *Flickr Pro* is a well-known example of the freemium model. Non-paying *Flickr* customers get access to a basic version of the photo storing and sharing service while a small number of paying pro-members benefit from additional product features. The few paying customers (around 5%) ensure the availability of the basic free of charge version (Anderson 2009). In freemium games, the ratio of paying users versus free users is somewhat higher. An analysis of the spending patterns in the Korean social game *Puppy Red* for example, revealed that about 26 per cent of the playing population had spent real money in the game (Wohn 2014).

From an economic perspective, free items are alluring because they signify the absence of financial commitment. Digital distribution further adds to the appeal because the free item can be obtained without physical displacement. Anyone with a smartphone can quickly skim through a list of free games, download them and store an abundance of games. Anderson (2009) argues that the easy acquisition of free items creates an immediate

sense of achievement and satisfaction in the buyer. This is because as Ariel (2009) puts it 'zero is not just another price . . . zero is an emotional hot button – a source of irrational excitement' (cited in Anderson 2009, 63). Ariely goes on to explain that part of this excitement is linked to the fact that with free items there is no fear of loss. When one puts money towards an item a certain level of anxiety is attached to the transaction because making a poor purchase decision also represents a financial loss. A free item, however, does not require any monetary investment and thus on the surface at least, always constitutes a favourable choice (Anderson 2009).

Social games and the freemium model

Freemium games for mobile devices and SNS pair the alluring concept of a 'free' product with the appeal of virtual goods and services in order to create new financial dynamics between players and game companies. By inviting casual gamers to spend real money via in-game microtransactions, freemium games turn players into repeat commercial users of abstract economies (Hamari and Lehdonvirta 2010). Defined as 'low value transactions at a high volume', microtransactions involve minimal sums of money (US\$0.99 or US\$1.99) and are spread out over long periods of time, thus making it difficult for players to track how much money they have invested in a game (Casual Games Association 2012). What do players spend money on? Hamari and Lehdonvirta identify several game features that promote virtual good purchases, including inventory mechanics that let players acquire new items for their game environment or avatar, and gameplay mechanics that give paying customers different user interface settings or augment certain aspects of the gameplay (2010, 26). Gifting practices represent yet another motivation for spending real money on virtual goods or services. Wohn notes that sending virtual gifts to friends is a common practice in social games, and that players, especially those who have a larger number of friends, are willing to spend real money on in-game items for their friends (2014, 3363).

F2P games that are played on portable devices are especially interesting because the mobility and convenience of the devices they are played on add additional layers of complexity to the control and affect dynamics between games and players. Handheld devices occupy a unique space in the world of gaming by reason that they are 'always on and always within arm's reach' (Casual Games Association 2012). Computer and console games engage players for as long as they are physically present in front of the machine. Playtime in these instances is tied to a specific location such as the living room or office, and once players decide to stop playing, they turn the system off and

are no longer bound to the virtual world of the game. Manghani, in his work on text messaging, has recognized that 'a significant attribute of the mobile phone is its ability to redefine how we experience time and space' (2009, 221). Portable devices have changed the relationship between players and games not just thanks to their ability to cross spatial boundaries, but especially by virtue of being constantly on. Casual mobile games are designed around the notion of constant accessibility and use push-notifications to update players about in-game happenings and invite them to return to the game. Under this new construction of continuity, players of mobile games never truly leave the game. In effect, unless push-notifications for particular applications have been turned off, it silently runs in the background while players go about their everyday business.

The mobilization of affect in freemium games

Expansive and yet intangible, affect is a kind of non-place that is highly dynamic (Negri and Hardt 1999). Ash, in his characterization of affect, refers to it as 'the force of an encounter', hinting at the fact that affect can influence behaviour and action (2012, 9). This definition supposes a certain dynamism and energy to affect, reflected in Teresa Brennan's (2004) observation that the transmission of affect has both behavioural and bodily effects. Difficult to define because of its abstract capacity and irreducibility to cognitive apprehension, affect is produced through interaction with people or an environment and belongs to the complex realms of emotion, passion and human motivation. One of the main goals of this chapter lies in understanding the function of affect as part of casual games' design model and, more precisely, the reliance by freemium games on affective responses from players to draw people in and convert free users into paying customers. The excitement that accompanies the acquisition of a free game is only the first of many affective responses players experience when playing social games that make use of the freemium model.

Indeed, affect is incorporated throughout the freemium model's operational structure. From the initial attraction to a free download to the application of excessive positive feedback, affect is a primary feature of many casual games that make use of the freemium business model. Juul uses Kyle Gabler's term 'juiciness' to refer to this exaggerated affective design element and explains that positive feedback 'gives the player an immediate, pleasurable experience' (2010, 48). Positive feedback is a form of extradiegetic praise that is 'tied specifically to feedback for the actions of players' and enhances 'the

experience of feeling competent, or clever, when playing a game' (Juul 2010, 47–9). Positive feedback then, is an affective design element that praises players directly with the hopes of generating an affective response.

While positive feedback can increase a player's enjoyment of the game, the same feature can also be used to further aggressive monetization strategies, placing 'short-term profits' above 'long-term player engagement' (Alha et al. 2014, para. 3). Pybus (2007), in her observations about the use of affective marketing strategies in the virtual pet game *Neopets.com*, argues that the aim of casual game companies is 'to expand their market share by forging strong relationships with consumers through the production of dynamic subjectivities' (para. 4). According to this rationale, players are progressively incorporated into the large-scale mechanisms of global capitalism through the emotional actions they perform in virtual spaces (Malaby 2006). Deployed by game companies to encourage in-app spending, affect is the impetus behind the production of new subjectivities of consumption (Pybus 2007, para. 2). Positive feedback is used not only to generate sensations of excitement and attachment, but also to encourage players to return to the game as consumers, to the financial benefit of the game companies.

Locating affect and positive feedback in *Tap Fish*

Tap Fish is an aquarium simulation and caretaking game developed by GameView Studios. The game invites players into a highly customizable aquarium management system where they can decorate their own aquariums and breed various fish and other marine life forms. The game's environment is highly picturesque and soothing and, while not exciting per se, Tap Fish is intensely appealing in its simplicity. The aquarium backdrop emanates sensations of relaxation and comfort and the game's interface is very userfriendly. It simulates actual aquariums as well as the emotional attachment one develops when caring for pet fish. In that regard, the game shares many of the qualities found in earlier types of virtual pets such as the Tamagotchi, an egg-shaped electronic toy that displays the image of a pet and requires regular engagement in order to stay alive (Wrye 2009).

In addition to providing players with virtual pets, *Tap Fish* also offers a lot of positive audio and visual feedback in the form of audible clicks and rings, as well as congratulatory messages which are accompanied by a shower of stars or hearts that fill the entire screen (Figure 9.1). Feedback of this kind provides positive reinforcement and lets players know that they are doing a good job, but more than that, it also has the potential to generate powerful



FIGURE 9.1 *Screenshot of a* Tap Fish 2 *congratulatory message.*

affective reactions. Game tasks such as loving one's fish, feeding them or cleaning the tank are repeatedly rewarded with positive feedback, leaving the player feeling accomplished. Although it operates on a simple reward system, positive feedback is highly exciting and increases players' enjoyment of the game (Juul 2010). Perceived enjoyment in turn, has been associated with purchase intention as well as continuous use intentions, thus showing that how players feel about the game is related to their spending behaviour (Hamari 2015). Developers of casual games therefore, I argue, use affective design elements to promote longer playing session and count on the resulting emotional ties to sell virtual items and services.

An analysis of the different currencies used in *Tap Fish* sheds light on how companies take advantage of players' affective connections to virtual pets to generate revenue from the sale of virtual items. *Tap Fish* has two in-game currencies: coins and Fish bucks. Coins can easily be earned by farming fish and then selling them for profit. Fish bucks on the other hand, are very hard to acquire unless they are purchased for real money through the in-game market store. Players get one Fish buck each time they level-up and sometimes Fish bucks can also be won by playing the weekly in-game jackpot lottery. What complicates the player's interaction with the game's virtual currency system is that some items can only be bought with Fish bucks and some only with coins. Safe to say, it is impossible to save up enough free Fish bucks to buy all the fish and decorations offered in the game or to be

competitive in events. In order to satisfy one's affective relationship with the game and access the most desirable features, one has to invest real money. This is why Daily Show correspondent Aasi Mandvi (2011) jokingly compares casual players' fixation with freemium games to drug addiction. During the sketch, Mandvi (2011) verbally confronts Rizwan Virk, the CEO of GameView Studios, by saying: 'You provide a product. The first one is free, and then as they get more accustomed to your product, the price rises. So you're a drug dealer' (http://www.thedailyshow.com). While his exaggerated observation was made mostly for laughs, the claim that freemium game companies are purposely taking advantage of people's desire for instant gratification has merit. Freemium games such as Tap Fish allow players to build up a basic emotional investment with virtual pets for free, but then create a dependency on real money for the continued maintenance of that relationship. When one considers that a large part of Tap Fish's audience is composed of children, the game's revenue strategies take on a rather sinister tone. As one parent whose child rung up an expensive iTunes bill aptly put it: 'there is a degree of callousness in the way these [games] prey on unsuspecting children like my son with whom these games hold great appeal' (Lui 2011, para. 12). Several scholars have criticized the F2P model's aggressive monetization strategies (Alha et al. 2014) and Bogost (2014) even argues that 'free-to-play games are a kind of classic racket' where players get swindled of their hard-earned money because they didn't realize the terms of the game at the outset (para. 9).

Locating affect and positive feedback in *Candy Crush Saga*

Other casual games such as the tile-matching game *Candy Crush Saga* may not exploit children's emotional bonds with virtual pets, but they still manipulate a player's range of affective experiences for monetary benefits. Games can be very addictive and the positive feedback of juicy games only increases the desire to act on these affective impulses. As Allison points out in connection with the Pokémon universe: 'once one enters this world, it is addictive – and addictively wired to one's own sense of ease . . . In this game whose objective is getting . . . the getting – and pursuit of getting – goes on and on' (2009, 96). Allison's remarks about addiction and the never-ending desire to accumulate more Pokémons can be applied across numerous game genres, but rings especially true for the F2P model. By limiting the content non-paying users can access, the free aspect of the freemium model becomes an obstacle to players' drive for more acquisition.

In order to exit this state of crisis and carry on with the game's emotional attachments, players have to become subjectivities of global capitalism's consumption economy by either spending money to sustain their gaming addiction or generating social value through the recruitment of friends. This particular subtype of the freemium model, because it makes paying real money a contingency for immediately continuing the game, is sometimes referred to as pay-to-play (P2P).

Candy Crush Saga is a good illustration of how what is initially a F2P game makes use of juiciness and affect to draw players in only so as to better convert them into paying customers via a P2P scenario or encourage them to produce social value by turning to friends for game-related help. Non-paying players can play all levels of Candy Crush Saga for free and have five in-game lives that replenish at a rate of one life every thirty minutes. When players run out of their allotted free lives, the screen presents them with the affective image of a personified crying heart and gives them the following three options: (1) wait up to thirty minutes for one life to replenish, (2) connect to Facebook and ask a friend for extra lives (thereby hopefully creating a new player for the game company) or (3) spend US\$0.99 in order to instantaneously be able to continue the game (Figure 9.2).



FIGURE 9.2 Candy Crush Saga no more lives screenshot.

Smith (2014) reflects on *Candy Crush Saga's* imposed timeout by stating that players 'can never be completely satiated when playing', and that by abruptly interrupting their gaming experience, the game continuously 'leaves [people] wanting more' (para. 10). Not being able to continue playing when one runs out of free lives feels like a failure. This is why 'by not letting [people] play, the game actually becomes even more rewarding when [one is] let back into Candyland' (Smith 2014, para. 10). *Candy Crush Saga* simultaneously presents players with a problem and a solution to that problem: wait, turn to your friends or spend money.

The figure of the crying heart (Figure 9.2) is directly opposed to the otherwise excessive juicy and joyful atmosphere of the game. Candy Crush Saga's 'No more lives' screen exemplifies an affective transformation from high to low. Before reaching this screen, the player was immersed in virtual play, consumed by the affective qualities of the game's juiciness. Positive feedback messages such as 'Tasty!' 'Divine!' and 'Sweet!' proliferated and made for an exciting gameplay (Figure 9.3). The switch to the crying heart screen represents an abrupt change of environment and a decrease in positive



FIGURE 9.3 Candy Crush Saga accomplishment screenshot.

affective stimulus. P2P freemium games count on this affective transmutation and the ensuing shock to generate revenue from microtransactions and recruit more paying players.

Affective and immaterial labour in *Tap Fish*

Lazzarato defines immaterial labour as 'the labor that produces the informational and cultural content of the commodity' (1996, 132). There are two aspects to this definition. Under information content, Lazzarato understands the shift from a mostly manual industrial workforce to an economy of services: 'where the skills involved in direct labor are increasingly skills involving cybernetics and horizontal control' (1996, 132). This side of immaterial labour encompasses the production of freemium games and other types of cognitive work. Cultural content differs from the previous designation in that it 'involves a series of activities that are not recognized as 'work' – in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms and, more strategically, public opinion' (132). The immaterial labour players carry out in caretaking simulations such as *Tap Fish* falls into the second category. Playing games is conventionally viewed as a leisure activity, engaged in because it is pleasurable and a welcome distraction from the toiling associated with professional labour.

Scholars have employed different terms to refer to the culturally produced iterations of immaterial labour. Allison, for instance, uses affective labour to denote the form of immaterial labour 'that engages affects such as well-being, excitement and ease' (2009, 91). Terranova understands the work provided by users of digital environments as free labour, qualifying it as 'simultaneously voluntary given and unwaged, enjoyed and exploited' (2000, 33). Individuals who contribute their time to expanding and improving these social and cultural milieus of the digital economy are, according to Terranova: 'acting out a desire for affective and cultural production' (36). Their immaterial labour fuels the new digital markets of global capitalism, yet the majority of these amateurs don't receive any monetary compensation for their contributions.

Affective labour, a subtype of immaterial labour, while prevalent in many casual games, is especially dominant in games that focus on caretaking and resource management. This section will therefore focus on the many forms of affective labour in *Tap Fish*. The affective labour performed by players in *Tap Fish*, includes activities such as feeding one's fish, cleaning the virtual aquarium and decorating one's tanks with appealing items to increase the happiness level of the virtual pets. These tasks are similar to the labour performed by

users of the Neopets site (Pybus 2007) and owners of Tamagochi toys (Wrye 2009) and don't require expert knowledge about game design or production. In *Tap Fish*, every three hours players have the opportunity to 'love' their fish by simply pressing a menu button. This action also impacts the fish's happiness scale and positively affects their selling price, making affective labour a central part of *Tap Fish*'s in-game economy. Players who devote the most time and resources to keeping their fish alive and happy are the ones who reap the greatest profits. While on the surface *Tap Fish* appears to be a simple, worry-free game, a closer look at the dynamics of affective labour in connection with the monetary features of freemium mobile games, reveals the complex relationship between players and immaterial labour.

Taking care of virtual pets in *Tap Fish* is very time-consuming and requires multiple playing sessions throughout the day. The game is not forgiving to players with low time commitments and if one forgets to check in on the fish for a few days, the virtual pets die. This threat of impending death creates a dependency scenario where players feel obligated to spend considerable periods of time engaging in affective labour just to maintain their virtual aquariums. The impending death of a virtual pet has been shown to cause considerable distress in some people. Wrye observes that: 'in some cases, people have even committed suicide, had nervous breakdowns, or become clinically depressed following the death of their virtual pet' (2009, 17). These reactions show that users are capable of forming strong emotional bonds with virtual pets. Tap Fish anticipated players' inability to dedicate enough time to the game and thus offers food bricks which keep fish content for several days or weeks for sale in the virtual in-game market. These alternatives to prolonged gameplay can be purchased with both gold coins and Fish bucks, but represent a substantial financial investment if players have a large system of aquariums. Game designer Bennett Foddy (2013), in an interview for the gaming news site Gamasutra, states that 'giving players the choice between paying or grinding', is a common tactic with freemium games (cited in Alexander 2013). These games are purposely designed to be very time-consuming so that players who want to succeed in the game find themselves having to pay real money in order to reduce the amount of time labour involved with playing.

Social value and viral marketing in Candy Crush Saga and Tap Fish

While only paying users are viewed as direct revenue contributors, one should not underestimate the value of free players as 'even those who choose not to pay anything play a crucial role in the success of a title by helping to spread awareness of the game and boost its ranking and visibility in the app stores' (Holmes 2013, para. 9). The social value produced by non-paying players through indirect advertisement and recruiting mechanisms benefits the game companies. Additionally, non-paying players contribute to the prosperity of a game simply through their presence by 'creating the feeling of a populated community' (Tyni, Sotamaa and Toivonen 2011, 24). In *Candy Crush Saga* for example, players can compare their scores on a particular level to that of their friends and see how far they've progressed in the game in relation to others. The presence of others on the board game creates a sense of competition and community.

Freemium games rely on systems of contagion or viral marketing to expand their audience and are structured so as to facilitate the dissemination of game information across a large user base. By contagion I refer to the practice by which players directly and indirectly promote a game to others and thus help game companies acquire new users and broaden their field of exposure. Tap Fish's main game menu has a 'social' option which lets players summon their Facebook, email and phone book friends to join the game. The game also lets players reach out to others for help with tasks such as feeding fish, cleaning tanks and reviving dead pets. Additionally, both Candy Crush Saga and Tap Fish make use of sociability within the game itself by offering players the opportunity to publish scores and screenshots on Facebook. According to Tyni, Sotamaa and Toivonen: 'game requests and wall posts serve as a regular reminder of the game being there and that other people are playing it' (2011, 24). All these actions represent forms of immaterial labour produced by casual gamers for their own pleasure, but with substantial benefits to game companies.

When players announce their game achievements on SNS they are doing important publicity and recruitment work for game companies. Mäyrä (2011) calls people who recruit new players through SNS 'viral agents', and explains that many casual games use 'mutual in-game rewards' to promote the spread of the game from one person to another (118–20). In addition to encouraging players to promote their scores on SNS, *Tap Fish* also invites players to visit other aquariums, an activity which introduces players to decorations and fish breeds they may not yet have. When players tap on a friend's aquarium features, the game prompts them with a purchase option. Here, players engage in free labour by working as advertisers for each other. The social value produced by players via SNS and other advertising avenues is vital to a freemium game's success.

While this type of promotion is beneficial to the game companies, phone contacts and SNS users who don't like games tend to find game-related

updates and notifications frustrating. In their research on social games and relationships, Wohn et al. (2011), found that non-players were frustrated by the amount of game-related updates their friends were posting on Facebook and, generally, were annoyed by the presence of freemium games on SNS. Paavilainen et al. (2013) claim that non-gamers are not the only ones who experience frustration in connection with the excessive advertising tactics of freemium games. Several of their interviewees who regularly played social games complained about 'the amount of spam [freemium games] create in the form of notifications, requests, news feed items, and wall posts' and stressed their attempts to limit game-related spam as much as possible so as not to annoy their SNS contacts (Paavilainen et al. 2013, 804).

Conclusion

As a business model, freemium has successfully penetrated the social games market by taking advantage of the gaming features casual gamers find most appealing and combining them with 'free' marketing strategies to encourage in-app spending. While the model relies on what can be considered the exploitation of players' affective relationships to virtual items, the social recruitment mechanism and the communities of players built around these games, are not inherently negative or abusive. The payment structure of freemium games is of great interest to the relationship between positive feedback, affective variance and in-game microtransactions, but it would be unfair to reduce the entire model to a purely financial system. As Mäyrä points out, some casual players benefit emotionally from the social system that is built into the freemium model and gain 'a sense of achievement and sociability' by helping their friends care for virtual pets (2011, 119). Sharing game-related tasks with friends can be a highly enjoyable activity, yet this same social component also has disadvantages. It is possible for players to experience recruitment fatigue, to feel taken advantage of, or to undergo a crisis in decision-making: Do I ask my friends for help yet again or do I wait 30 minutes for one of my free lives to replenish? Additional research is needed in order to explore the full extent of the social, cultural and economic ramifications of the freemium model on casual gaming. As evidenced throughout this chapter, various tensions surround the F2P business model and gaming experience. The multifaceted relationship between casual players and game companies, that arises when real-world financial dynamics are incorporated into the experiences of virtual gameplay and sociability, requires further inquiry.

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PART THREE

Locative play

10

Riding in cars with strangers: A cross-cultural comparison of privacy and safety in *Ingress*

Stacy Blasiola, Miao Feng and Adrienne Massanari

The use of GPS in gaming platforms has increasingly emerged as games and mobile devices become common bedfellows. The Android augmented reality game (ARG) *Ingress* uses GPS functionality to create 'real-world interaction'. Released by Google in November 2012, the game has been downloaded over one million times, with players or 'agents' in over 100 countries (Robinson 2013). Billed with the slogan, 'The world around you is not what it seems', *Ingress*, 'transforms the real world into the landscape for a global game of mystery, intrigue, and competition' (*Ingress* 2013). Players work as members of factions, The Enlightened or The Resistance, and compete to digitally control 'portals' – user-submitted and typically famous landmarks, buildings or artwork, that are physically located in the world. Game success is achieved when players work together to create large fields (groups of three portals that are linked together).

Players may share a Google Plus profile for 'verification' purposes, meet a local teammate to drop gear or ride in cars with relative strangers to launch

attacks, 'farm', or build large fields. Thus, the duties performed by *Ingress* players in the name of teamwork seem to require high levels of trust in teammates, often in the face of privacy loss or even potential physical danger. The purpose of this research is to investigate how *Ingress* players across cultures navigate security and privacy issues as they play the game. To that end, we draw on data collected from interviews of American and Chinese *Ingress* players to address these issues.

Literature review

Owing to the relatively recent emergence of mobile GPS-based ARGs, much of the previous research is found in mixed-reality games (MRGs) and pervasive games literature. While these terms were often used synonymously, the latter emphasizes 'the pervasive and ubiquitous nature of these games: Pervasive games are no longer confined to the virtual domain of the computer, but integrate the physical and social aspects of the real world' (Magerkurth et al. 2005, 2). Montola (2005) describes pervasive games as those that break traditional game boundaries spatially, temporally and socially because the games may occur anywhere, do not necessarily have a defined stop or start time and may involve non-players of the game. Comparatively, 'Mixed reality is the merging of real and virtual worlds to produce a new environment' (Rashid et al. 2006, 1).

Pervasive games have been studied from multiple perspectives, examining the role of non-players in the game (Montola and Waern 2006) and aspects of game design (see Montola, Stenros and Waern 2009). Because pervasive games use the 'real world' as the game board, one study investigated whether and how non-players' privacy is affected as a result of players' movements and actions within games (Niemi, Sawano and Waern 2005). But the extent to which players' privacy is affected has primarily been approached as a methodological concern of researchers designing studies to evaluate gamers (Stenros, Waern and Montola 2012) or as a function of game design (see, for example, Linehan et al. 2010). The extent to which players' own privacy is negotiated as a result of either gameplay itself or as players move beyond the game boundaries and create their own methods for game surveillance and intelligence gathering remains unstudied.

Ingress: The ARG

The purpose of this research is to examine how players navigate privacy and safety concerns in *Ingress* on a local level, across cultures. The following explanation of *Ingress* will focus only on those elements of the game that are crucial in understanding the main themes addressed in this chapter.

Factions. In *Ingress*, players work as agents of either the Enlightened or the Resistance. *Ingress* agents strive to collect AP (action points) that allow players to level-up. At the time of writing, the highest level a player could reach was Level 8 (L8).

Portals. In *Ingress*, factions compete to control portals. Portals' locations are situated in the real world and players must physically navigate to portals to play the game. Players hack portals to obtain gear, such as bombs (XMPs) and resonators. Each portal contains slots for eight resonators, which are used to claim a portal for the team. Resonators have levels that influence the corresponding level of the portal. Resonators (and items in the game) range from Level 1 to Level 8. The higher the portal level, the more difficult it is for the other team to neutralize and the better gear it returns when it is hacked.

Links. Once a faction controls a portal, it can be linked to other portals of the same faction. When three portals are linked together in a triangle, a field is created. Fields are the most important aspect of the game when it comes to how the game is scored. Called 'Mind Units' (MUs), the population areas under fields are tallied and used to create the game's score at any given moment in time.

The Scanner. The game interface – the scanner – displays the game-world and the player's position in it (see Figure 10.1). The blue orientation arrow



FIGURE 10.1 *The* Ingress *Scanner.*

3:05PM	Ketcher deployed an L6 Reson All	84.00	Faction	Alerts
	(400-448 N Broadway, Milwaukee, WI)		E Pos	trict to map
3:05PM	Ketcher deployed an L5 Resonator on E. (400-448 N Broadway, Milwaukee, WI)	R. Godfre		
3:06PM	Ketcher deployed an L6 Resonator on K House (317 North Broadway, Milwaukee,			mmission
3:07PM	Ketcher deployed an L7 Resonator on Q. Broadway, Milwaukee, WI 53202, USA)	R. Pieper	<u>Co</u> (158-174 N	
3:07PM	Ketcher deployed an L6 Resonator on Q Broadway, Milwaukee, WI 53202, USA)	.R. Pieper	Co (158-174 N	Vorth

FIGURE 10.2 *Intel map screenshot of All Comm.*

indicates the player's exact position in the game. The yellow circle around the arrow is 40 metres in diameter. To influence objects in the game, a player must be within 40 metres of the object. The scanner also allows for two types of chat, called Comms: Faction Comm, which is only seen by members of one's faction, and All Comm, which is broadcast to members of both factions. Whenever a player manipulates an object in the game, the action is broadcast to All Comm (see Figure 10.2).

Farming. The acquisition of gear is one of the biggest challenges in the game. Importantly, the portals must be of a significant level to drop valuable gear when hacked. To maximize efficiency in this endeavour, players typically try to locate areas that are conducive to farms. Viable farming locations consist of a large number of portals that are close together (Figure 10.3). Much like a river draws animals to the same place for water, farms draw players of both factions to the same place and virtually guarantee that players will eventually encounter one other.

Method

Procedure

In April 2014, using the #Ingress hashtag on Google Plus, *Ingress* players were invited to participate in a survey to answer questions about how they play the game (N = 1854). At the conclusion of the survey, participants were asked to enter their email address if they were interested in partaking in a follow-up interview. The interviews were meant to gain a deeper insight into the privacy and safety considerations players make. Therefore, we

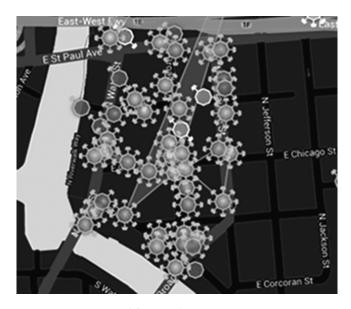


FIGURE 10.3 Typical farming layout.

selected interview participants based on a type of purposive sampling known as criterion sampling (Patton 2002). Criteria for selection included length of time playing the game, faction, gender and location. Our aim in selecting participants was to reflect both factions equally, and to include male and female players from urban areas in the United States and China. We selected players who had reached a minimum of Level 7 and had been playing for at least six months to ensure that players had experienced a range of encounters both in terms of time playing the game and in the effort to achieve success, reflected in levelling. From these criteria, twelve people participated in an interview session (see Table 10.1 for descriptives for each interview participant). We interviewed six Chinese players (two Enlightened; four Resistance) and six American players (three Enlightened; three Resistance). Interviews were conducted online using Google Hangouts. The first author and second author conducted semi-structured recorded interviews, lasting 30 to 60 minutes, with all participants during April and May 2014.

Following transcription, the authors conducted textual analysis whereby individual participants' data were used to refine themes as they emerged (Lincoln and Guba 1985). To protect players' identities, pseudonyms were created and faction membership was deleted. American players were given names that begin with the letter 'A' and Chinese players were given names that begin with the letter 'C'.

Chris

Male

	, ,	•	'		
Name*	Gender	Age	Race	Level	Duration**
Angela	Female	34	White	8	1 year
Andy	Male	35	White	8	1 year
Aaron	Male	32	White	8	1 year
Anna	Female	32	White	8	1 year
Adam	Male	35	White	7	7 months
Abby	Female	27	White	7	7 months
Curt	Male	24	Asian	8	1 year
Carlson	Male	24	Asian	8	1 year
Carrie	Female	40	Asian	8	1 year
Charlie	Male	25	Asian	8	1 year
Craig	Male	41	Asian	8	1 year

Table 10.1 Survey participants descriptive

Findings

White

8

1 year

28

Teammates: Let me blow that up for you

From fielding to farming, players continually encounter situations that require teammates. Aaron explained: 'To make a Level 8 portal, you need 8 players with you. You don't all have to be there at the same time, but realistically, it's not going to happen unless you coordinate with the other players.' As players recognized the need for coordination, Google Communities, and now Google Plus groups, were created to discuss plans without fear of spies reading the in-game Faction Comm. Andy explained that creating a Google Community for his local team was one of the first things he did as a new player because: 'There was lots of talk to see what we could do, testing things out, telling each other, "Oh I just made a field," or these are my plans for this field, you know? And, just to have a name, have a person match up with that name.' The usage of Google Groups and Hangouts has become ubiquitous among players of higher levels. A by-product of using these communities, as Andy

points out, is that players often learn each other's real names and identities in these online spaces.

Teammates seemed to naturally progress from online meet-ups to in-person encounters. Each player described a nuanced process of decision-making that involved using both the cues given off by the technology (i.e. the way players interact with others or whether they belong to the Google Plus community) as well as physical markers (i.e. location) to determine whether the situation seemed safe. For example, Andy continued: 'Within two weeks of playing the game we ended up wanting to meet [in person] because we seemed to jive online and this is a local kind of thing, and we just decided to meet to make it easier than typing.' Andy expressed relying on the online chat to first get a feel for his teammates and their personalities before ultimately inviting them over to his house for a team meeting.

All of the players described first meeting up with other people when they were very new to the game. Typically an experienced player reaches out to a new player on Faction Comm and offers assistance. Because lower level players' bombs do not do much damage, they often require the help of higher level players to destroy higher level portals. This was true for Carlson who described meeting a teammate in a location that made him feel comfortable:

He came to help me level up. He taught me how to play, shared items with me and helped me destroy enemy portals because at that time I was really low level and could barely do anything. I felt safe because he came to my campus. In China, the college campus is a safe place and there are friends and classmates all around.

Comparatively, as a seasoned player and local leader, Aaron is the type to be the person on Comm reaching out to newer players. He uses the notifications on the scanner to recognize when another player is near and uses his own personal assessment of individuals to determine whether meeting is a good decision. He explained:

If I saw a person on Comm in my area, I would reach out and say, 'Hey you wanna say hi?' . . . I'm not very bashful about it. I just think it's more fun to meet other players. I can't think of an instance where I didn't reach out or say hello in some way. I'm confident in my ability to quickly assess another person and decide if I need to leave the scene [laughs].

Curt takes a broader approach to his vetting, explaining: 'the number of players in China is pretty small . . . In China, the high entry of the game pre-decides

who the players will be and players should have common interests in many ways.' Essentially, he uses the fact that another person is capable of playing the game as his primary vetting process.

Perhaps because of all the communication and the likelihood of meeting teammates, all of the players used the word 'community' to describe their local faction. And for many players it is the sense of community that appears to drive their passion for the game. When asked why she plays, Angela said the primary reason is: 'The social part of it, the meeting up with other people, and having fun with other people.' Once accustomed to the practice of meeting players, most of the players we interviewed described enjoying this aspect of the game.

Privacy: The art of spy craft

Although teammates often choose and plan to meet each other in person, many meetings in *Ingress* happen without the outright consent of the players involved, but rather as a result of players being in the same place at the same time. With the scanner continually broadcasting players' locations and the range players must be within to affect portals, the physical component of the game lends itself to chance encounters with other players as well as the opportunity for spy craft. Aaron described the first time he met another player:

I saw a portal that belonged to the other team. I was going to smash it but it was dying and being recaptured as I was approaching it. So, I realized there was another player there. Um, yeah, it took me about half a second to realize who it was because it was the middle of the night and it was in front of a closed business.

In the situation above, Aaron met a teammate. However, players often observe or encounter opposing members. These situations frequently lead to what players describe as spy craft. Andy found the notion of spy craft to resonate immediately upon playing the game. When he created his Google Plus circles, 'for teammates I put them in a circle called "fellow spies". Because, to me that was how the game played out, like a spy game. Like, spy versus spy.' The spy craft aspect is something that players developed outside of the game itself. However, the mechanics of the game make it easy for players to engage in surveillance against opponents and the tactics that players have developed in the effort to create 'intel' on opposing team members may lead to privacy issues.

Sometimes, players may inadvertently find themselves engaging in spy craft behaviours. Take for example Anna's story:

One time, I completely accidentally ended up finding a player on the other team. I have a portal by my house and as I was pulling up, I could see someone just happened to be hitting my portal. So I looked around and I was like [whispers] 'He's right there!' So I followed him for a couple blocks and after a few portals I was able to confirm, 'It is him!' And I was like 'Ohhhhhhhhh!' But then I didn't want to follow him too far because I was like, 'Oh, that's weird.'

Anna decided to follow the player more as a result of her curiosity than for any purposive gaming reason. In many cases though, particularly when opposing players are thought to be cheating, players will make efforts to gain information through surveillance. Angela explained:

There's been situations where we thought particular people were cheating. . I was like well, you see [on the scanner] where they're playing now. So someone drive over there and look in the car and see if there's another person in there with them. But I would never, I don't encourage anybody to keep track of anybody or anything like that.

In other cases, amassing 'intel' on opponents was thought to be helpful in overall gameplay. Knowing where an opponent works or what time an opponent leaves work, for example, helps when planning defensive strategies. Andy described a situation where his team was actively recording information about the opposing teams:

Well, in the early days, we probably did some . . . things that maybe went too far. We had dossiers on the other team. It started as a Gplus page with descriptions of people's cars . . . then it was people's cars and their license plates. We never tried to get or post photos of the other team because that's a little creepy. We stopped doing the dossiers awhile ago though.

In the above scenarios, despite some measures to learn about opposing teammates, all the players described an imaginary line over which they would not cross. This suggests that players are aware of potential privacy violations they may be committing, but to some degree are okay with the steps they have taken to gather information about opposing players.

Even if players did not talk about actively collecting others' information, they seemed aware that they themselves were potentially being monitored, with some taking extreme measures to protect their own privacy. Craig explained: 'I'm very sensitive to detailed personal information, for example, my real name, contact information, and house number, I try my best to

protect. I have the highest AP in the city, but I don't even meet up to play with my own team.'

For most participants though there seemed to be an acknowledgement that by virtue of playing the game, there is an accompanying privacy trade-off, especially in regards to the player tracking that the game provides through the scanner. Curt succinctly explained: 'I think it's the foundation of the game – you choose to play and you agree to be broadcasting your locations. So playing the game is to reveal your location by default.'

Safety concerns

The tagline for *Ingress* is 'The world around you is not what it seems' and the game actively encourages players to get out in their communities. Charlie described: 'Ingress is all about being offline, and people have to move out of their house to play. This is exactly what I like about the game. I want to explore every corner of my city.' This exploration can be exciting, but it also requires players to use their own judgement when it comes to venturing into areas that may be deemed high crime, off-limits, during bad weather, alone or while playing the game late at night. All of the players voiced awareness about their surroundings, but most felt capable of making good judgment calls despite most having an example in which they displayed potentially risky behaviour.

One night, for example, Anna found herself in a secluded area and ran into a member of the opposing team:

At first it was like 'I'm in a park at nine o'clock at night, nobody around, near some train tracks, with a guy who open carries [a firearm] and is bigger than me.' It's not like I was really scared of him but, you know, the little, like, rational part of my brain was like 'Hey, this might not be a good idea.'

Angie had a similar story:

I found myself in a rougher part of the neighbourhood at 3:00 in the morning. And I got to a point where I was like, I was thinking 'This probably isn't the best area . . .' but even still I considered walking farther out, but then I stopped myself and I thought, 'Yeah this probably isn't the best idea.'

In comparison, Craig expressed feeling secure 'because I'm big and tall, I am not afraid of any physical threats'. Similarly, Adam and Abby, a couple, felt that because they most frequently played together, they faced fewer safety concerns. While gender clearly impacts a player's sense of safety, his or her respective size and whether he or she is playing alone are also important.

Interestingly, several participants mentioned the continual broadcasting of their location as a feature that, while detracting from privacy, actually added to their sense of security. For example Charlie felt:

I am very comfortable and safe about announcing my location. Why? Because people can see me performing on the intel [map] all the time. Or, if anything bad happens, I think my team or my friends in the game will know the last portal I was at.

Charlie's point reminds us that safety concerns in the game aren't limited to encounters with members of the other team. Players must also contend with 'civilians' or non-players. For many participants, this amounts to a run-in with security as a result of trying to access a limited area or because of displaying behaviour that appears 'suspicious' to law enforcement. Most players find that simply being truthful with law enforcement yields the best results. Curt described one situation with security guards: 'They would see a group of us and would question us about what we were doing there. We had to explain we were playing a phone game.'

Although most participants could not recall any instances where they felt unsafe as a result of going to an environment to play the game, Curt described an encounter which made him feel frightened:

It was the first time I played the game alone in a particular area. I met a very creepy older guy. He came to me and whispered . . . Later he was trying to touch me (my lower body). I was scared to death and I yelled at him, 'What are you doing?' and I ran away.

Another consideration for players is that they are carrying devices which typically cost hundreds of dollars. This was not lost on Chris, but he felt 'no concerns about my safety at all. Beijing is 1000 times safer than the U.S. I can walk with my phone in Beijing but I have to put my phone in my pocket if I'm in the States.' Despite Chris's feelings on the matter, none of the American players expressed any concern about using their mobile devices.

Discussion

Ingress agents face a number of privacy and safety considerations as a result of playing the game. Many of these considerations stem from the nature of pervasive games, generally, as described by Montola (2005) in that Ingress breaks traditional game boundaries: spatially, by occurring in the physical world; temporally, by having no clear start or end; and socially, by involving

non-players as well as players. Although at first glance it may appear that players wistfully meet up with relative strangers, they actually described nuanced and strategic thinking in terms of assessing situations. Players relied on the technology provided by the game to observe how other players interacted and the locations and times others played to make inferences about whether the individual was someone with whom they would meet. Additionally, and in keeping with previous research on MRGs (Kim et al. 2009), *Ingress* players rely on communities that are based in social networks, specifically Google Plus, to learn about teammates and subsequently to use that information to influence their decisions about whether to meet in person.

Although previous research in pervasive games has investigated how nonplayers' privacy is affected (Montola and Waern 2006) and how game design can affect privacy, (Montola, Stenros and Waern. 2009) or influence storytelling (De Souza e Silva and Hjorth 2009), the current study highlights how players may take it upon themselves to engage in behaviours that fall outside the game boundaries and that potentially infringe on privacy. Participant Andy explained: 'There was no "way" to play when we first started.' So why players decided to incorporate these tactics offers an interesting question for future studies. While the American participants provided more examples of the types of spying and surveillance techniques they employ or had employed, the Chinese participants reflected knowledge of these techniques in that they discussed being on the receiving end of them. It would seem, then, that regardless of culture, *Ingress* players are aware of some types of potentially privacy infringing behaviours, whether they engage in them or not. Perhaps most importantly, however, was the apparent agreement across players that certain privacy aspects must be forfeit if the game is to be played. In other words, eventually an *Ingress* player will run into another player, for example, and there are necessarily privacy issues that go along with such disclosures. Despite this feature, most players positively embraced the notion of meeting others as a result of playing the game. Thus, it is important to keep in mind that not all privacy exchanges are bad, per se, particularly given that all of the players interviewed felt that they had far more positive experiences as a result of playing the game than negative.

In terms of motivations to play the game, those suggested by participants seem to confirm the factors found by Yee (2006) in relation to MMORPG: achievement, being social and immersion. Although players described enjoying the challenges of levelling-up, they experienced immersion differently in that the game takes place within the physical world, and they found enjoyment in exploring and immersing themselves in their city. Perhaps most importantly, most players listed the social aspect as the driving force behind their motivation to continue playing.

Conclusion

This chapter discussed realities faced by players of the ARG Ingress. Drawing from interviews with Chinese and American players, we highlighted how players negotiate privacy and safety while playing the game. This area of research presents a number of useful findings. Primarily, both American and Chinese players expressed the same concerns in regards to privacy and all players acknowledged that exchanges of privacy do occur as a result of gameplay. Despite taking measures to protect their own privacy, many players described engaging in tactics to gather information about opposing players or accidentally learning personal information about other players. Additionally, a potential difference among genders emerged when personal safety was discussed and those who played alone described more safety considerations than those who played in groups. Regardless, most participants expressed feeling enjoyment that occurs from meeting other players through gameplay. The overlap of gameplay and offline engagement is increasingly relevant to socialization in the networked society. And while Ingress is an ARG, this research shows that nature of this game is inherently 'social'.

Because this chapter offers an initial overview of the privacy and safety challenges encountered by *Ingress* players, there are many aspects upon which it does not touch. Whether these games are suitable for children, for example, will depend on how norms and restrictions influence the safety of players in the game environment. Since its original release, the age requirement for *Ingress* dropped from 18+ to 13+. Whether and how this change influences gameplay will be an important development to follow. Additionally, the effects of gender on in-game decisions and overall success are an area ripe for study. Lastly, researchers should examine how the data generated by players is used by the companies that provide the games. *Ingress* is a free game, but players exchange large volumes of valuable information in order to play.

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11

Playful places: Uncovering hidden heritage with *Ingress*

Erin Stark

Introduction

It has been said that as we move through the familiar streets of the city, the routines of everyday mobility - time-forged cognitive maps - etched in our minds, we fail to really see the world around us. Everyday mobility is 'enmeshed with the familiar worlds we inhabit, constituting part of the unreflexive, habitual practice of everyday life' (Binnie et al. 2007, 165). Routine desensitizes us to the intricacies of spaces we pass through. A 'sense of flow' (Wunderlich 2010, 50) facilitates passage around bodies, vehicles, objects and structures on the journey; rarely does one stop to enjoy the spaces between origin and destination. de Certeau suggested that routine provokes 'opaque and blind mobility' (1984, 93); it has even been said that 'urban space has become common to the point of invisibility' (Ackerman 2003, 98). Practices of everyday life, however, form 'meanings, material form and functions of place' (Binnie et al. 2007, 166); meaning exists 'in the intermediaries and circulation in-between places' (Jensen 2009, 153). Everyday mobility does not mean blindly moving from one place to another: it involves interaction with other people, objects and physical structures; it is embodied and experiential; it facilitates the formation both of place: the layering of meaning, memory and experience upon abstract space and place identities. The traffic of everyday life enables 'little stories, neighbourhood stories to emerge' (Hetherington 2013, 28), contradicting bleak notions of a body that 'moves passively, desensitized in space, to destinations set in a fragmented and discontinuous urban geography' (Sennett 1994, 18).

It has become common to share the experience of everyday life with others via smartphones. We need no longer feel disconnected-in-space while away from the traditional hubs of activity, such as work and home. Now, we are connected to one another, if we wish, via a continuous stream of information. Locative media situates us in both physical and digital space and can be used to receive information about our surroundings. We are able to share information about our location and can use location-based services, such as maps, social networks and games, to enhance knowledge of our physical surroundings, adding value to the minutiae of the everyday. Locative media and location-based services reify the significance of third places (Williams 2006, 14). Location-based technologies encourage users to engage with their surroundings via (Google) maps and apps for checking in and getting more value out of locatedness. Niantic Labs' Ingress, a location-based mobile game, invites individuals to engage with third places by transforming everyday spaces into playful places. Motivated by in-game achievements and community membership, *Ingress* players diverge from everyday mobilities by reframing familiar locations as hybrid digital-physical landscapes. The gamespace of Ingress is shaped by the players themselves who identify significant landmarks and sites, implicating them in a form of cultural heritage curation.

Ingress

Ingress is a massively multiplayer, location-based, hybrid reality mobile game, released in 2012 by Google startup Niantic Labs. With more than seven million downloads (Ingress 2014), it is the largest game of its type, both in terms of participation and, owing to its global popularity, geography. From city streets to mountain tops, play occurs in every location imaginable. Smartphones are used to access the 'scanner', an augmented reality app that layers real-time game data onto a map of an agent's (player's) surroundings. A complex, outcomedependent narrative, perpetuated via media releases, frames Ingress as a battle between the green Enlightened and blue Resistance factions for control of a mysterious substance called exotic matter, or XM, said to have 'the ability to shape human thought and perhaps even time and space' (Ingress 2012). Agents fight to control 'portals' (player-nominated landmarks such as public artworks, places of worship and learning, and historically or culturally significant sites), from which XM leaks into the atmosphere. Basic play occurs in parks and

on city streets. The mechanics of the game are rather simple: agents travel to portals, capturing them for their team and attacking opposition-owned sites. To capture a portal, an agent deploys 'resonators'; a fully deployed portal can be linked to another fully deployed portal, provided that the agent has a key to it. Keys, like all equipment, are acquired by approaching a portal and 'hacking' it. In addition to resonators and keys, players can hack a variety of weapons, mods (used to fortify friendly portals), capsules (for equipment storage) and power cubes, a portable source of XM, which also acts as a player's energy.

Progress is measured in three ways. Players receive action points (AP) for hacking, deploying, destroying, linking and fielding. Mind units (MU) are obtained when three portals are linked together, creating a control field; the MU of a field corresponds roughly to the population in the area it covers. Regional and global scoring occurs in rolling 175 hour cycles, comprising thirty-five five-hourly checkpoints; if a field is standing at the end of a checkpoint, its MU value is added to regional and global faction total, and the agent appears on the regional leaderboard. Finally, badges are awarded on the basis of cumulative activity. As with achievements in many games, these represent effort over many days, weeks or months (Hamari and Eranti 2011, 3-4). Levelling badges are awarded in bronze, silver, gold, platinum and onyx, and numerous non-levelling badges have been awarded to commemorate particular events, such as official Niantic events known as anomalies, the one- and two-year anniversaries of Ingress, and the game's iOS release in 2014. A combination of badges and AP allows progress through the sixteen levels of the game.

Ingress, like other massively multiplayer online games (MMOGs), has a strong community focus. Community is an essential element of MMOGs, transforming participation from 'a bunch of independent players running around' (McQuaid in Aihoshi 2002) to something richer and more fulfilling. Team-based activity provides an alternative to day-to-day play and allows for strategic operations; new players will, generally, be eagerly invited into the community so that they may be mentored by existing players. Agents regularly encounter one another in the field (the real-time activity log makes it easy to intercept nearby players if you so wish), but pre-arranged meetings are also common. Occasionally, teams of agents will coordinate with others nationally or internationally to execute large-scale strategic operations (see, for example, Fogg 2014). In-game chat facilitates basic, non-secure communications, while strategic and social communication primarily occurs via external platforms (such as Google+ and Google Hangouts). Numerous tools, including browser-based Intel maps, enhance the game experience by adding layers of information that change the way agents perceive their physical surroundings.

Location-based mobile games utilize 'the city space as the game environment', enhancing players' experience of the physical world through 'the linking of information to places, and players to each other via location awareness', with 'the game (taking) place primarily in the physical space and on the cell phone screen, as players can see each other and/or virtual game elements on their mobile screen' (de Souza e Silva and Hjorth 2009, 614). *Ingress* augments reality in a number of ways, using layers: the scanner (smartphone app) offering locative data (including the player's current location), a real-time activity log and communications; the web-based Intel map; external communications platforms and social networking sites (SNSs) such as Google+ and Hangouts; and third-party tools developed by players, such as the *Ingress* Intel total conversion (IITC) map (Breunig and Atkins 2013); and various plug-ins offering more detailed information about the game-space and the ability for users to add their own information to the Intel map (e.g. using draw tools to plan operations).

Richardson has proposed that the mobile phones and 'location-aware mobile media' work to situate users as 'embodied, motile, mobile, and *in*-the-world'; in this interpretation, the mobile self is 'on-the-move, on-the-street and purposefully situated in local spaces and places when engaged in mobile phone use and mobile game-play' (2011, 421–2). *Ingress* agents, rather than absorbed in the screen and disconnected from the physical world, use their screens to determine the location of significant sites in the material landscape. The layering of information can make the familiar seem strange as an agent's vision is augmented, uncovering elements of the everyday. The *Ingress* game-space is user-generated, based upon players' nominations of significant landmarks, and it transforms according to activity within the game. Players develop an awareness of the landscape as they look for potential portals and locate those that have already been created.

Cultural heritage participation

The definition of *cultural heritage* is changing. Tweed and Sutherland suggest that heritage by appropriation is a grassroots movement outside the bounds of traditional heritage practice and is indicative of 'the growing democratisation of culture, in which citizens play a much larger part in determining what is considered cultural' (2007, 63). According to the community guidelines, portals should be 'a location with a cool story', 'a hidden gem or hyper-local spot' or 'a community gathering place', for instance (Google 2014) – that is, sites and objects not necessarily identified nor recognized by traditional cultural heritage practices. In identifying these landmarks as culturally salient,

Ingress players document them and make them visible to others, removing these sites from the 'mundane' landscape of the everyday. This is particularly important in the case of temporary sites, such as street art.

A good example is seen on Little Parry Street in Northbridge, Western Australia. Most often used as a pedestrian thoroughfare, Little Parry St showcases an ever-changing array of street art on the side of an old building. once the site of Mackay's Aerated Water Factory that stands between Lindsay and Money streets. Built in 1928, the soft drink factory was owned and operated by three generations of one family until it was sold to Coca Cola in 1966 (Moredoundt et al. 2002, 1-2). The factory building was used for a time but was ultimately abandoned until being renovated as apartments between 2008 and 2015. As a derelict site, the factory became a hub for graffiti artists. Local street art collective Last Chance was invited to curate a gallery of the work that would be lost during construction and local artist Michelle Horrocks was commissioned to create 'insideOut': four gates representing 'the interface between the formal use of the building and its colourful cultural past, paying respect to all who wandered the streets and alleys in and around this local architectural icon' (Square One Living, n.d.). The heritage listed building has been recognized for its 'importance in contributing to the community's sense of place' (Moredoundt et al. 2002, 32), ultimately saving it from destruction.

As they gain legitimacy, graffiti and street art increasingly pose a challenge to traditional ideas of what constitutes heritage. They are forms of artistic expression marked by transience:

. . . graffiti's usual interface with heritage sites is as a form of vandalism that detracts from recognised forms of cultural significance, with heritage practice continuing to emphasise legal prosecution and its speedy removal. (Merrill 2014, 7)

Street artists develop their own 'systems of heritage preservation', including photography and the sharing of such documentary evidence on websites and SNSs. By documenting street art in the form of portals, *Ingress* players contribute to the curation of alternative cultural heritage in a manner that is more democratic and conceptually fluid than traditional heritage frameworks will allow. As with many landmarks marked as portals within the game, the documentation of street art as culturally significant makes such work more visible, with a nod to both the evolving culture of the streets and the walls upon which such art is committed. Importantly, by highlighting public works of art, the form of cultural heritage curation present in *Ingress* gives rise to the potential for conversations about 'the fundamental importance of the

physical, architectural and urban environment in which the works are settled' (Caffio 2013, 380) – something typically overlooked in studies of street art. In the pursuit of unique captures or as a waypoint on missions, street art, like all portals, will take players along specific routes, raising the possibility that they will engage with areas of the city either so familiar that they have become invisible or new to the player, allowing them to discover new sites.

Ingress: Encountering heritage via playful mobility

The relationship between vision and mobility, discussed earlier in this chapter, is evident as we begin to consider the influence of location-based mobile games upon the way that play mobilities are enacted and the manner in which players' awareness of and relationship with the physical environment manifests. de Souza e Silva and Sutko claim that hybrid reality games impact 'our perception of space' by '(transforming) our interaction with physical spaces' and by '(mixing) playful and ordinary spaces, as well as public and private spheres' (2008, 458). I contend Ingress, while doing this, also includes a temporally transformative element. By recognizing places and objects as potential portals, and thus of sites bearing significance, players engage with space across time in the construction of the game environment, offering unique opportunities for participants to interact with the spaces they inhabit in a way perhaps not otherwise possible, owing to lack of awareness. 'The heritage of a place is often misinterpreted by its own residents . . . because there is a lack of previous knowledge and connection with this heritage; consequently, they are not able to enjoy it nor appreciate it' (de Carmago 2007, 254).

Heritage in Ingress

For Galloway, the phenomenological experiences of everyday life provide a rich canvas upon which citizens inscribe the stories of the present, meshing them with long-told heritages from the past. Discussing the potential for ubiquitous computing to promote awareness and appreciation of everyday life, Galloway (2004, 403) writes:

The ability for users to comment on a map, to delete meaningless places, add meaningful places, and to share those comments and places with others, may provide means of putting practices of spatialization and

temporalization in the hands of users – allowing them to manipulate, or shape, their city – instead of limiting the potential of everyday life and controlling the flow through abstracted technological objects and models of information.

Galloway's idea is reflected in *Ingress*. Players curate cultural heritage that is evolving and unique: it tells not only the official stories of places, but also the stories on the streets that would likely be overlooked by travel guides, heritage reports and other official forms of documentation. Just as players can nominate new portals, so too can they edit existing portals to reflect changes (by submitting a new photograph or changing the name or location) and request that invalid or missing portals (such as street art that has been painted over) be removed, reflecting an evolving game-space wherein the present and the past exist in a sort of amalgam of history and zeitgeist.

When elements of everyday life are made apparent through some means – a game, for instance - they become visible and noteworthy. One's attention is directed towards an object, situation, structure or behaviour that is, usually, so commonplace that it has become part of the background. Instead, it occupies two spaces at once. Holloway and Hones have discussed the phenomenon 'of objects that are commonly encountered as simultaneously mundane and extraordinary, and thus as doubly coded in single contexts' (2007, 556). Ingress regularly highlights everyday places and objects as extraordinary and participants may engage with common scenes in new ways within the bounds of the game. The role of players in curating the digital space of *Ingress* is, seemingly, indicative of a wider movement that acknowledges the role of citizens in heritage documentary, as discussed by Dallas (2008, 54). Ingress does more than just motivate players to recognize significant sites in their immediate surroundings, however. In-game achievements and collaboration within the community result in modifications to player mobility, including where people go, how they behave while they are there - for instance, driving four or more laps of a route while 'farming' for equipment; how they move, including walking instead of driving or catching public transport; and encouraging participation in the curation and experience of cultural heritage (via portal submissions and mission design).

Playing Ingress

Hybrid reality, location-based, pervasive games support alternate ways of seeing the everyday. *Ingress* provides numerous opportunities for the 'layering of spaces' – a characteristic of hybrid reality games, wherein 'play

and ordinary life' intersect (de Souza e Silva and Sutko 2008, 452). Players interact with locations in numerous ways. They see, feel and experience the physicality of the streets, buildings and open spaces that make up the gamespace. The digital space of the scanner depicts immediate surroundings, up to approximately 200 metres from the player's location. To see beyond the scanner, players must move physically to another place or, if they have a 'portal key' (obtained by hacking a portal), can remotely view a portal and its surrounds. The Intel map (a basic Google map overlaid with game-relevant data), best viewed on a computer, offers a more complete perspective of the Ingress world, allowing players to view any location on the planet; however, the further out one zooms, the less detail they see as the visibility of portals on the map is determined by level (at street view, a player can see all unclaimed and Level 1-8 portals; at a global perspective, they can only see Level 8). Unofficial tools, such as the widely used but terms-of-service-breaking IITC map provide further layers of information, such as others players' movements (achieved by scraping the in-game activity log) and the ability to draw on the game map, thereby creating personalized information layers.

de Souza e Silva and Sutko (2008, 458) note that hybrid reality games:

Encourage the reconceptualization of urban spaces by requiring players to physically experience less traveled areas of the city or by giving the players the freedom . . . to explore new and different areas of the city one would not normally visit.

Much of the day-to-day play in *Ingress* occurs along players' commutes, near home and around their place of work. However, in-game achievements and participation in community-led events also motivate players to diverge from every routine, seeking out new locations or travelling long distances as part of stratetgic play. There are two badges awarded for visiting unique locations: Explorer, awarded for visiting and hacking 100, 1,000, 2,000, 10,000 and 30,000 unique portals and, acknowledging the fact that it is not always possible to capture a unique portal (for instance, if it is already owned by a friendly agent); and Pioneer, awarded for visiting and capturing 20, 200, 1,000, 5,000 and 20,000 unique portals. The capacity of agents to obtain these medals is dependent upon numerous factors. For example, Western Australia contains more than 10,000 portals - approximately 7,000 of these within the metropolitan area – but is geographically immense. In order to visit all the portals in the state, agents would need to travel thousands of kilometres on journeys amassing hundreds of hours. By contrast, the 87 km² of Paris' arrondissements contain some 14,000 portals, but fewer residents drive cars, limiting agent mobility.

Portal submission

Perhaps the most difficult of the achievements, discussed earlier in this chapter, in *Ingress* is the Seer badge, awarded to agents who successfully nominate 10 (bronze), 50 (silver), 200 (gold), platinum (500) or 5,000 (black) new portals (DecodeIngress 2013). Would-be portals must meet specific criteria to be successful:

A location with a cool story, a place in history or educational value

A cool piece of art or unique architecture

A hidden gem or hyper-local spot

A community gathering place and

A point of interest that facilitates discovery/exercise. (Google 2014)

Portals include park signs, places of worship, dedication plaques and public artworks. Numerous objects and structures are considered unsuitable, including anything on primary or high school grounds, private residences and unremarkable businesses (such as chain stores). The criteria change over time, albeit not significantly. (An example of changing criteria is street art: *Ingress* will no longer accept street art that appears to be placed on the outside wall of a private residence, regardless of whether one can hack it without trespassing.) Additionally, portals are often rejected on the basis of proximity: in most instances, there must be 35 metres between portals (although there are seemingly random exceptions to this rule – for instance, in the Central Business District (CBD) of a city, portals will often be very close together).

Many portals reflect typical heritage sites: places of worship and the artefacts (sculptures, carvings and so on) contained within them; architecture that bears some kind of social, cultural or historical significance; and plaques commemorating events, individuals and ideas are all common. However, *Ingress* allows players to document heritage that is hyper-local and perpetually evolving. This reflects Hetherington's claim that 'cities are indeed a form of archive – one where the past is conveyed through the everyday materiality and lived practice that shapes their composition' (2013, 18). To nominate a portal, the player uploads a geotagged, labelled photograph via an in-game submission form. They may also add an optional description about the nominated portal. Many, if not most, nominations occur by happenstance: a player going about their daily routine or exploring as a part of regular play will discover and nominate a site they deem portal-worthy.

The consequences of player-directed portal nomination are interesting. Certain areas (central business and entertainment districts; tourist attractions; places with historical significance) contain greater portal density, while others

(rural and regional areas with a low population; places lacking mobile phone coverage) may contain very few or no portals. However, a blanket of portals will fairly evenly cover any inhabited location. By nominating portals in suburban and country areas, players contribute to a version of history that would, in all likelihood, never grace the pages of a book, much less be accessible in tourism guides or even on the pages of local blogs.

The various layers of information in *Ingress* have the effect of rendering the everyday visible, and in doing so draw players into engaging with their surrounds. When a player uses the scanner as they walk down the street, they are privy to sites of social, cultural and historical significance. Berleant suggests that 'environmental perception is an interpretation of body and context' (2004, 45). However, the context of that which we view, feel and experience as entities moving through the city space is often not enough to make a sight meaningful; as has already been established, it is difficult to really see that which constitutes our everyday environment. 'Traces of the past . . . are an embodiment of a collective memory, and an historical index marks the dates when these sites become legible', writes Berleant. 'Place is thus not only a topographical-geographical designation but one that also embodies meaning: the city, one's body, and the psychological space interpenetrate' (2004, 49). Ingress motivates players to recognize signs of 'collective memory': to see street art, to acknowledge culturally important places and events, and to use their own eyes to discover more places within familiar environments, stepping outside of the everyday experience of place. Players are responsible for recognizing and nominating new portals; they are actively embroiled in the curation of a sense of place by highlighting significant sites and artefacts, and in turn play a part in writing the cultural heritage of a city.

Missions

A recent feature added to *Ingress* is the ability for players to create missions – a publicly accessible route highlighting portals based on a theme of the creator's choosing. More than any other element of *Ingress*, missions lend themselves to the idea of curation. We are becoming increasingly familiar with and interested in curatorial practices as non-professionals (Cox 2009, 103), with platforms such as Pinterest allowing users to curate collections of images (predominantly posted by others) as a way of expression identity. In the case of *Ingress*, missions exist as a means of storytelling, as players can group together portals on a route in order to highlight their connectedness. For example, a mission might take players around dedication plaques in a park, past all the street art in a particular suburb or along a heritage walk, representing an element of a city's part.

In order to progress, players need to do one of a number of tasks, whether simple (hacking each portal in the route) or more complex (entering a passphrase relating to a clue in the portal's description or to a physical object in the vicinity of the portal). Creators can enter custom descriptions for each portal along the route, allowing them to expand upon the story already told by the portals as individual landmarks. This feature tempts users to visit new locations in order to complete the mission and receive the in-game achievement (each completed mission is represented by an icon on the player's public stats page, and players may achieve tiered badges for completing 5, 25, 100, 200 and 500 unique missions). Missions also enhance players' ability to engage with cultural heritage both as participants and creators of missions. As there are few restrictions to what missions may entail, creators can use the platform to indulge their own interest in a particular element of a city's social, cultural or historical life, sharing it for consumption by others.

Problems and potential

Jordan et al. (2013, 3) note that there is no guarantee that designated points of interest in location-based games are valid as or valued for their social, cultural or historical sites or landmarks. There is evidence of this throughout *Ingress*; the portal review. Similarly, not all sites worthy of recognition as landmarks or cultural heritage are acknowledged as such in-game. Niantic restrict the placement of portals too close to one another; each portal should, in theory, be at least 35 metres from its nearest neighbour, but there are (seemingly random) exceptions to this rule. The proximity policy means that otherwise legitimate portals (i.e. portals that meet the criteria for acceptance in every way other than being too close to another portal) are often rejected, denying them the visibility of successfully nominated portals. This in turn means that the stories of rejected portals are, effectively, omitted from the collective cultural heritage of a place. (This can, to an extent, be circumvented by missions, as mission creators can add descriptions of portals and their surrounds to the mission map. If a mission creator wishes to include a landmark that is not a portal, they can direct players towards a nearby portal and instruct them to observe the landmark, on the site of a rejected portal; however, this is problematic as there is no guarantee that players read descriptions while completing missions.)

Despite this, participation in *Ingress* does, in general, facilitate players' awareness of and engagement with local cultural heritage. I have argued here that *Ingress*, using in-game achievements and an emphasis on community (creating space for healthy competition) encourages players to modify their usual mobilities during the course of play while facilitating participation in the curation and experience of cultural heritage. Krase (2012, 1) states:

When we pass through urban spaces such as a residential neighbourhood we haven't visited before, we are like tourists using our eyes to decipher the clues that loudly and quietly surround us.

The benefits for the individual are numerous and include increased physical activity and the opportunity to experience surroundings in a new light. The various layers of information appended to the physical world in the form of *Ingress* game data make visible many objects, sites, structures and stories that players may have never seen, owing to their everyday banality. *Ingress* builds on Krase's claim by allowing players to adopt a tourist perspective of their home town or city. Contrasting with the perception of the commuter as unseeing, fixed on a path from work to home and back again, *Ingress* players constantly change their mobilities – both in terms of *where* they go and *how* they do it. Additionally, players are perpetually implicated in the writing and experience of cultural heritage.

There is obvious potential for Ingress as a data collection tool. Ingress developer Niantic Labs is an internal startup at Google; director John Hanke, while the CEO of Keyhole, Inc., was responsible for developing the technology that Google would acquire and respin as Google Earth. There is no doubt that Google sees Ingress as anything less than a 'data goldmine', as one journalist put it (Hodson 2012, para. 6). Not only do players volunteer hundreds, if not thousands, of kilometres of location data per year via their smartphones; they also show Google and other researchers what people are interested in, where they go and how long they spend at each place. An unparalleled opportunity exists for Google to collect data about socially, culturally and historically significant locations that do not meet the usual criteria for recognition. These are often places that have not been talked about in tourism publications, history books or on blogs and websites, but rather represent places that are significant on a local scale. Every time players highlight something of social or cultural significance, Google benefits. (In turn, it is presumed, we too stand to benefit, in the form of more accurate mapping tools and, a realist must acknowledge, more sophisticated targeted advertising.)

Conclusion

Ingress facilitates the discovery of hidden heritage by encouraging players to experience and engage with their surroundings. Two broad but multifaceted spaces of play – the physical and the digital – coexist to create the hybrid reality world of Ingress. Physical space: play occurs in-the-world; the physical environment is the game environment. Players pursuing individual

and faction-related goals deviate from their usual paths to explore new and unfamiliar locations. Digital space is created and curated by players as a result of activity in the physical space of *Ingress*. By identifying and nominating potential portals, players create new targets; in doing so, they contribute to the visibility of that landmark or location. Player-generated 'missions' can be themed however the creator chooses (a particular aspect of a place's history or a inventory of all the street art in a suburb, for example) through narrative and lore about particular portals – for example, those that are hotly contested, in difficult to access area or are strategically useful. This process sees players implicated in writing the stories of places by documenting both typical heritage sites and fleeting (e.g. street art or the site of a significant event) evidence of life at a particular time.

As the game has evolved, players have been further incentivized with in-game achievements (five tiers of badges associated with completing various activities and an open-ended number of medals received for completing missions). These incentives help to extend the curatory role of players, who participate in creating and curating the game-space through portal submissions and mission design, as well as via the narrative and lore that emerges around particular in-game locations (which are, of course, also physical world locations). Badges are required to level-up, but are also something of an identity marker: as discussed, a platinum or black Explorer badge suggests that a player has travelled extensively, especially if they are from a small or isolated city lacking easy access to nearby cities' portals. A platinum or black Seer is one particularly adept at identifying potential portals. The lores that materialize around particular portals, owing to being difficult to access or particularly strategically advantageous, also contribute to their visibility. These portals, not necessarily remarkable on the surface, become furnished with legend status because of the narratives and histories that surround them both within and across factions. They are often hotly contested – and thus far more visible than they might have been – sites within the local space of the game.

Ingress capitalizes upon the extraordinary in the everyday. Players see sites, structures and spaces that would otherwise, by virtue of their familiarity or location go unseen. It augments the way that players see the world and presents significant opportunities for players to participate in the identification, curation and experience of heritage. The mechanics of Ingress – particularly in-game achievements and prolific communities operating at hyper-local to international levels – change the way that players see, experience and participate in the familiar spaces of the everyday. Curating cultural heritage on this scale is vastly different to the way in which official bodies recognize heritage; the rules of Ingress are such that players are encouraged to identify

current cultural heritage sites in the form of landmarks and artefacts that tell the contemporary story of the spaces of play. With approximately seven million downloads worldwide, *Ingress* pales in comparison to the size of mainstream, console- and PC-based games. However, even if only a fraction of those seven million downloads are linked to active accounts, the possibilities for community-led curation of cultural heritage are immense.

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12

Rewriting neighbourhoods: Zombies, Run! and the runner as rhetor

Jamie Henthorn

Introduction

The flaneur is a literary archetype of a young man strolling through the Parisian arcades. He is there to see, but also to be seen, and being the object of spectatorship is integral to the enjoyment of the stroll. Through the flaneur, the likes of Baudelaire and Benjamin have commented on the city itself, analysing it as a text. Much, however, has changed since the flaneur emerged: sprawling suburbs overtake urban centers, the car transformed the stroll to the casual drive, and the Internet has redirected much human wandering towards digital realms. At the same time, digital technology opens up new possibilities for a twenty-first-century reimagining of the flaneur, embodying the principles of a fast-paced, hyper-connected, society.

Recent developments and scholarship in casual gaming have focused on location-based mobile games (LBMG), introducing new populations to gaming and bringing digital games outside. This chapter discusses Six to Start's *Zombies, Run!* (ZR) (Alderman 2012), a gamified mobile running application (app), in the context of how runners use the app to rewrite the functionality

of their own neighbourhoods. Studying how and why runners use ZR invites conversations on how games play a role in daily activities and how this kind of play changes perceptions of shared public spaces. Using phenomenological interviews to research runners who use the app, this chapter analyses the appeal of ZR as a casual game capable of both creating hyper-real experiences for players and allowing them to participate in the composition of the story through in their own regular outdoor runs.

Zombies, Run! is a gamified running app played through a smartphone. The game uses the phone's GPS and runners listen to a narrative interspersed between music loaded on the phone. Players embody Runner 5, a British agent shot down en route to Abel Township (a small survivor colony in suburban England). Runner 5 is sent on various missions to protect or improve Abel. The township is constantly threatened by zombies, larger townships and the mysterious Dr Van Ark. While running missions, players collect supplies and materials that help Abel develop into a thriving civilization. Abel Township is represented as a map within the app that players build through these collected supplies (Figure 12.1). During missions, runners can opt to

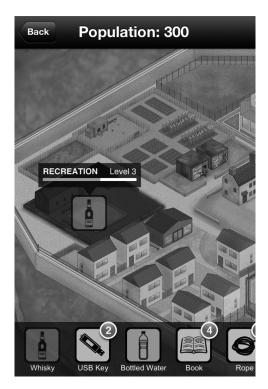


FIGURE 12.1 Screenshot of the season one map of Abel.

participate in 'zombie chases', where players must increase their speed for about 90 seconds, simulating interval training. The app can be played while running on a treadmill, but players lose some elements of the game, such as the GPS-based zombie chase feature. As a result, many players run outside and, for convenience, in their own neighbourhoods, though they will of course run with the app in other outdoor spaces.

If the app engages players and encourages continued participation, a study of how the game affects the players' experience with their neighbourhood gives clues to the influence that LBMGs have on everyday spaces. As pervasive media continues to provides more affordances and greater mobility in digital play, studying ZR can allow scholars and developers to assess the needs of individuals invested in LBMG markets and illuminate how to incorporate the success of ZR into other games. To study the app, I began with three research questions:

- 1 Why run with a gamified running app like *Zombies, Run!*?
- **2** Does running with the app encourage runners to run outside?
- 3 Does running with the game alter the way individuals perceive their own neighbourhood?

Review of literature

Research on the use of LBMGs is still in a preliminary stage as smartphone games are a relatively new market and have shown mixed results with regard to their levels of success (de Souza e Silva and Hjorth 2009). Putting mobile game studies in conversation with more theoretical pieces on the rhetorical uses of place yields precedent for the type of research undertaken in this chapter and will be the focus of this literature review. A cultural rhetorical approach helps aid in understanding the 'why' behind the popularity of ZR, particularly how both running and popular culture are discussed. While studies exist that analyse the efficacy of running apps for incentivizing exercise through usability (Liu et al. 2011; Stephens and Bryan 2012), analysing the app through the lens of game studies and spatial rhetoric introduces ways that narrative-based games can be used to give a mundane act meaning.

Preliminary research on mobile games and material space begins with Huizinga's (1949) theory of the 'magic circle', an almost sacred space entered into during play. Playing personal mobile games in public spaces is not a new cultural practice; ancient Roman board games have been found throughout its empire (Moore 2011, 374). Similarly, even digital games started out in

public places such as arcades. Adriana de Souza e Silva and Larissa Hjorth argue that playful spaces are a 'subcategory of social spaces in the realm of social practices (perceived spaces), in that they highlight the relationship between daily routine and urban reality' (2009, 604). Historically, games have been played in public with public consent, inviting both casual and fervent spectators. In this way, smaller console and computer games, initially played alone and in private, were the historical anomaly. In many ways the mobile games market re-enters a long-standing public tradition.

LBMGs are instead unique in adapting the magic circle to overlay an everyday place without any visual references between the boundaries of play and non-play. This opens up the possibility of events and places not intended for play to enter games. Likewise, these games can connect local individuals and help players to write new meaning into their everyday spaces (Richardson 2010). Mobile games can provide a wide array of play experiences. They can augment desk and console gameplay by allowing users to chat with players when not logged in or by purchasing or trading goods for in-game experiences (Christensen and Prax 2012). These apps keep players engaged outside the 'magic circle' and increase the player's time inside a game while they are attending to activities outside of gameplay. Mobile gaming apps that augment play allow users more control in how they interface, both with games and public places (De Souza e Silva and Frith 2012; Farman 2012). This augmentation can lend itself to hyper-mediated experiences, but, as Jason Farman notes, the immersive elements of locative media have often been overstated (2012, 81). Instead, 'games are a form of bricolage, a type of creative misuse, and through this misuse, players can create a space of critical distance where the process of play can become actions of social critique' (Farman 2012, 78). Play in public invites critical analysis on the acceptable uses of public places. This critical distance is significant for these hyper-mediated games and can have ethical consequences when gamers force others outside of the game to enter play, like when games require players to interact with strangers who are neither willing nor able to participate (Farman 2012, 77). Players must exist in two places, the game place and the material place, while playing LBMGs.

Mobile games allow users to enter the public in new ways and, because space is rhetorical, allow players agency to rewrite meaning in the places they inhabit. Spaces are constructed, both physically and culturally. As such, we carry expectations and manage intention and agency based on location. City and building planners construct spaces to give individuals cues on how to perform and typically encourage the status quo in their planning (Debord 1994). Umberto Eco considers the idea of creating or recreating something as 'reassurance through Imitation' (1986, 57) and our experiences with other similar places affects our behaviour in new venues. Eco also notes

that imitation creates hyper-real atmospheres, wherein individuals enjoy the immersion in hyper-mediated spaces while continually aware of the artifice itself.

Renegotiating the use of public places as unintended by planners requires individuals to behave or move in unanticipated ways. Rhetoric turns to pedestrians to explain this theory. Michel de Certeau's The Practice of Everyday Life (1984) argues that pedestrians mark a significant place in city transportation research because their movements are difficult to determine when compared to vehicles. De Certeau claims walkers are rhetors and their pathways through cities represent several rhetorical tactics. The walkers design their own routes, often against city-planned trajectories, creating what he refers to as a mythic city. Robert Topinka builds on de Certeau's work in his analysis of suburban strip malls and argues that suburban space 'attempts to suppress rhetorical agency and invention . . . [y]et walkers can turn the dominant trope of this space' (2012, 66). Topinka finds that contemporary suburban space is intended almost exclusively for personal vehicles. For instance, large parking lots force drivers to circle past various shops before exiting, promoting further consumption. Walkers can instead cut straight from store to road and their consumptive practices are based on what they can physically carry. Runners share some similarities with walkers, but running is culturally coded as a leisure activity. While walking is necessary for any number of daily activities, running is generally thought of as a hobby that one participates in. Creating places where citizens of all ages can be involved in physical activity became a state priority in the twentieth century and parks and recreation centers become important to preserving outdoor locations to counteract 'the neurosis surrounding urbanization, industrialization, the break-up of traditional society and the presentation of relevance, competence and credibility in the self' (Rojek 2010, 86). Not all runners have the time or luxury to head out to parks for a run and the jogging revolution that takes place in the United States during the 1970s and 1980s had many runners taking to neighbourhood roads.

In analysing the ways that gamers play mobile games in public places, rhetorical analysis demands a look outside of the text to consider how cultural objects are perceived and adopted. Christopher Paul argues that significant to the discussion of rhetoric and video games is a rhetorical lens he calls wordplay, which 'uses the tools of rhetorical analysis to better understand the discourse of games and the impact they have on the structure of the game industry' (2012, 3). This cultural rhetorical examination invites consideration of games as cultural artefacts with implications in the material world. *Zombies, Run!*, for instance, is not only a game, but also an artefact rooted in a popular culture currently interested in both zombies and

locative media. Alan Cameron examines zombies' connection to media and new media, noting that 'zombie films place all media under suspicion . . . any form of audiovisual mediation may be associated with the zombie film's representations of physical, social, and hermeneutical disorder' (2012, 68). Cameron investigates how zombies are remediated through cameras and screens, especially in death scenes. Zombies force the subject to consider the body and decay (Cameron 2012). Likewise, zombies are interesting because they are the ultimate pedestrians, moving through spaces with complete disregard for city planning. They have no awareness of culturally accepted uses of space; all spaces are meant for literal human consumption. Zombies are the perfect topic for a running game because they embody the cultural critique inherent in LBMGs, question perceived uses of space and remind players of physical limitations and decay.

Design and method Participants

The study uses a homogeneous sampling of case studies for five runners who played with the app. Participants were both experienced (had used the app since early 2012, when it became available on iTunes) and relatively new players (less than two months' experience). Runners ranged in ability from beginner (less than two years' experience) to experienced runners who had trained for marathons. All participants had run before using the app. All had run in a variety of spaces (urban, suburban and/or rural). Most of the participants (four out of five) currently live in an urban area of the United States. Two players used iPhones, two used Android devices and one participant used a Windows phone. The operating systems make the app slightly different in visual appearance, but the audio-narrative is the same. All of the participants described their experiences running with the first season of the app. Participants were found through flyers, listserv posts and word of mouth. This method was chosen because the app did not yet have a central online fan community.

Procedures

I used phenomenological interviews to collect data. I chose to do interviews because the research was exploratory in nature and an interview allowed more possibilities for examination than a survey. Participants were interviewed individually in person using audio recording

software. Interviews were structured around nine questions with follow-up questions being common. The interviews took approximately fifteen minutes to complete, but participants regularly talked about the app after the structured interview was over. I collected data on participants' running history, their reasons behind purchasing the app and how they saw their neighbourhoods after running with the app. After my interview, I gave participants the chance to talk about the app in any way they thought would be useful for further research.

Data analysis

Data was analysed using an aggregate process. Interviews were transcribed and then coded. Once coded, text from the transcriptions was aggregated into four larger themes: narrative, media, athletics/running and space. These themes were chosen based on the frequency with which these codes appeared and because the four themes and their subsequent codes were in conversation with each other. This data was analysed using the methodology suggested by Jackson and Mazzei (2012) in *Thinking with Theory in Qualitative Research*, which suggests approaches for scholars to connect empirical data and theory. The process entails coding data, treating that data as a text and applying critical theory to that text.

Results

Why run with a gamified running app such as Zombies, Run!?

When asked why they decided to use the app, participants universally pointed to the app's appeal to popular culture and its transmedia artefacts. Three participants were interested in the app because of their side interest in zombie films or television (citing *World War Z, Zombieland, 28 Days Later* and *The Walking Dead*) and two participants referenced an affinity for zombie video games. Participants either had never used another running app or had only used *Nike+*, a running app once included by default on iPhones. They were not interested in other apps because other running apps did not include the narrative element. Narrative featured heavily in the reasons behind purchasing the app, and all participants commented on the app serving as a motivation for running. One participant mentioned that he used the app exclusively while running his 'everyday neighbourhood run' as a way to beat the tediousness of regular running. Another participant mentioned that he ran listening to audio books before purchasing the app.

While the app has a game element to it that led players to the app, the narrative heavy reality of the game continued to appeal to all the runners and kept them using the app. Running can be a tedious discipline in many ways, demanding the individual to run identical or similar routes three or more times a week. The inclusions of narrative made participants feel like they were going somewhere during the boring spells. The survival-based narrative encouraged participants to keep running beyond when they were tired, which several participants mentioned as a key motivator. One participant mentioned that she was afraid of what might happen if she did not run when the app prompted her to. Here, the unknown consequences align directly with motifs used in horror films. Two participants mentioned that the reactions they had while running were of an adrenaline rush similar to the way one feels while watching a horror film.

These narrative techniques, tied to techniques used in horror, reflect Umberto Eco's notion of the hyper-real. Those who use the app augment a somewhat boring task, but the app also gives individuals the chance to enter into the zombie narratives that have been part of popular culture. In other words, the app is engaging even when running is not boring. Individuals mentioned a desire to make the game even more hyper-real; one wanted the game to allow for multiple runners to run a story together or perhaps construct their own narratives based on their neighbourhoods. This is a desire that the game has since tried to meet with 'air drop' missions, where runners can select geographical checkpoints on their runs. Another participant mentioned that she runs with her dog and mentally incorporates the dog into the narrative to make her own experience more real.

Does running with the app encourage runners to run outside?

All five participants preferred to run outside before they used the app. Most of them preferred to run in suburban or rural settings. Three participants mentioned that they had run on treadmills in gyms, but that it was more tedious and they watch a screen and/or listen to music to break that tedium. If participants had to run on treadmills, they would not run with the app. Participants did find the app to be a motivator, as stated above. So, while it may not change their preference to running outside, it had them running outside faster, longer and more often: this led to more contact with their own neighbourhoods. One participant mentioned: 'When I use *Zombies, Run!*, it has a lot of features that make running easier. Well, I wouldn't say easier, but more fun.' Another said: 'So, I'm fairly confident I still hate running. I still primarily run so that I can eat and/or get in better health. But

it already makes me want to more. It makes the time I'm doing it more enjoyable and that's huge.'

Does running with the game alter the way individuals perceive their own neighbourhood?

Much of the perception of neighbourhood within the interviews related back to a better geographical understanding of the neighbourhood. Most (four out of five) runners learned more about their neighbourhood as they ran with the app, supported by elements intrinsic to the app. The first was that ZR missions run approximately twenty-five to thirty-five minutes. This means that runners are never quite sure when the day's mission will end. They are regularly made to run an even longer distance to ensure that they do not arrive at their front doors before the game is over. All runners reported an increase in speed using the app, which also required that they extend their runs because missions are based on time and not distance. Finally, a feature of the game, zombie chases, forced runners to increase speed and not stop at random intervals; runners often re-routed in order to avoid coming into contact with intersections. One participant noted that the game did not have her reroute, but it did make her much more aware of the time it took her to loop her neighbourhood. Another participant explained that a zombie chase had caused her to run into a part of her own neighbourhood she had never been in that included wooded trails. She is now a regular trail runner.

Safety while running was a key factor for participants. Because many of them used no running app before ZR and few listened to music or audio books on the road, they were all much more concerned about how to run safely while also playing the game. Two participants lived in what they perceived to be less than safe neighbourhoods and one made sure to run only during the day; the other was more concerned with making sure he did nothing to 'look suspicious' while he ran. Another runner was more concerned with cars. She ran on the sidewalk when running with the app, but down the middle of the street when not using it. She speculated that she might do this because she is concerned about being hit by a car. Only one participant was concerned with the app's Zombie Link feature, which tracks one's run and gives players the option to share routes and times on social media. She was concerned not only with the fact that her approximate address, running time and regular route were being stored online, but also that the game would share her distance and time. She did not want others to know how fast she ran.

As far as an overall 'sense' of one's neighbourhood or closer feeling to the neighbourhood itself, evidence does not suggest this to be the case. In fact, one participant seemed to have less of a sense of community after he started running with the app. He reflected on feelings of superiority compared to non-running neighbours. The app works well as a disciplining agent, to get one out the door and involved in the community emplaced in the narrative. However, the app also works as an encapsulating device, encouraging players to focus more on the game place than the places they were actually running in. More interesting were the ways that participants saw their own use of the game in shared spaces. One of the participants remarked:

Running through the neighborhood is a fascinating experience. One is able to enjoy the post-apocalyptic scenario while at the same time holding the secret of enjoying the activity to oneself and separate from those you might encounter. It is a peculiar balance that the perception undergoes.

This participant is hinting at one of the very unique positions this app puts players in; one can play ZR without spectators knowing they are playing a game. Whether or not this perception matters to spectators, it is significant that players see it as a very different reality. These hyper-real environments work to make the run seem more real, but that sense of 'realness' connects with an awareness of the artifice that hyper-real spaces create.

Conclusions and implications

Conclusions

While ZR is a game, the narrative aspect is its most appealing feature and the narrative seems to be what individuals will continue to pay for as subsequent seasons come out for the app (Season 3 was released in April 2014). Likewise, individuals are invested in the hyper-real elements within the game. Six to Start, the company that makes the app, has already answered this in some respects, creating 'race day' runs that allow runners to run with zombies even during 5 km, 10 km and half marathon races. These hyper-real narratives are an element that needs further consideration as augmented apps continue to grow. This research shows that participants genuinely enjoy the aspects of the game that made it hyper-real while also acknowledging that the app constantly reminds them of the artifice. With a number of self-disciplining and motivational apps appearing on the market, covering anything from house cleaning to learning a foreign language, understanding the connection

between narrative and returning use would be helpful to both commercial and educational institutions.

While much of the research on locative media and mobile gaming has focused on the magic circle, ZR as a game does not break down issues of the magic circle as optimistically as researchers might believe. While the app breaks some notions of a magic circle, the individual is still attached to and encapsulated in a gaming device, just a small one enough to fit in one's pocket. While others would not be sure of whether or not an individual was playing a game in a public space, runners actually have very little interaction with their own communities while playing the game. Players might know the geographical layout of their neighbourhoods better, but the technology does nothing to make one feel part of a real community. This does not mean that other augmented apps cannot create this experience, only that this game does not aid in a sense of community. Where the game better addresses discussions of the magic circle is in the awareness that players have that they are creating a playful space that others might not be aware of.

Whether or not runners consider running as a performative act for which they can utilize rhetorical strategy is a complex question. All five runners noted that, in line with De Certeau, they move around their neighbourhoods with little thought to the laws that dictate motor traffic – such as stop signs, one-way roads or red lights – outside of checking to make sure they would not be hit by a car. One runner admitted to running through intersections if she knew cars had time to stop for her. Several runners felt as though the neighbourhoods they ran in were not made for runners and that they had to use the space in different ways in order to run, agreeing with Topinka's argument that twentieth- and twenty-first-century spaces in general are not made for pedestrians. Likewise, runners were asked to make decisions about their actions to balance the space they were in with the desire to play through the game. This manipulation required them to make choices and run unexpected routes. The game appears as a collaborator in designing the runner's daily run. Participants commented on how they collaboratively worked with the app and that a run was something that they could edit and modify to the purposes of the situation. Two runners acknowledged an awareness of being observed by others. One participant mentioned: 'When I do run, I see some people just kind of watching . . . if they had the opportunity of learning what the app is and what it does, they might take the chance to get it and use it. This participant shows not only that he is aware of running in his neighbourhood as performance, but also that it was a performance that could be used to encourage others to be active.

Some runners see the way that the app rewrites their neighbourhoods in their own imaginations. One runner reflected on how the narrative affected his perceptions of physical spaces within his neighbourhood: What had been a mundane driveway can, within the narrative, become an area that housed a rather dramatic event. It remains a driveway, obviously, but when considering the space, even when no longer participating with the app, the memory of the event that took place during the narrative remains, and the space is transformed by way of your experience of it.

The participant highlights the very question of whom an app like this rewrites the space for. If something traumatic happens within the game, a beloved character dies, a particularly challenging zombie chase, or even a happy moment in a favourite mission, the space that that narrative point happens in becomes haunted by the event. Walking past that space may remind someone of the event in the way that visiting a childhood space might remind one of a life event. For the individual playing the game, the physical location is forever rewritten by the game.

Implications

Zombies, Run!'s success as well as further advances in augmented and GPS technology will lead to other games being produced. Six to Start has come out with two other narrative-based fitness app since the success of ZR: The Walk, a step-recording with narrative similar to Hitchcock's North by Northwest and Superhero, an app where the protagonist must strength train to be Earth's last protector. As games that play with space continue to grow and improve, designers must be aware of how important well-constructed narrative is to the success of these kinds of games, especially if they are going to be used as disciplining agents. Zombies, Run!'s success is also, in part, due to its tapping into larger cultural phenomena. This work is of use to individuals hoping to build a greater understanding of how these texts work as well as programmers interested in making similar games. In general, as more mobile-based casual games continue to play with notions of fixity, these phenomena will warrant further study.

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13

The de-gamification of Foursquare?

Rowan Wilken

Social gaming was about customer acquisition optimisation and marketing, not about games.

(WU 2014)

Introduction

New York-based start-up *Foursquare* has grown to become a key player in the area of location-based mobile social networking. *Foursquare* rose from the ashes of *Dodgeball*, the pioneering mobile service that Dennis Crowley and Alex Rainert created in 2000 and subsequently sold to Google in 2005. At the time of *Foursquare*'s successful debut at the SXSW (South by South West) Interactive festival in Austin, Texas, in 2009 (the same year Google closed *Dodgeball*), Crowley and *Foursquare* co-founder Naveen Selvadurai were launching their service into a more mature location-based start-up scene, with a suite of applications already available, including *Loopt* (founded in 2005) and *Whrrl*, *Brightkite* and *Gowalla* (all founded in 2007). Of these, only *Foursquare* continues to survive as an independent operation: Brightkite sold to HDmessaging (formerly Limbo) in 2009, *Whrrl* to Groupon in 2011, *Gowalla* to Facebook in the same year and *Loopt* to Green Dot in early 2012.

What set *Foursquare* apart, and was of particular appeal to its early adopter heavy users, was the emphasis it gave to its various gameplay elements, where

each Foursquare user collected badges for venue check-ins and competed with other users to become 'mayor' of a venue. Recently, however, and in order to stay commercially relevant, Foursquare would appear to have dramatically changed tack. Foursquare, it is said, is no longer about leader boards, badges and points; rather, it is about local search and discovery. As Foursquare's then former head of business development, Holger Luedorf, put it: 'we're positioning ourselves as the location layer of the Internet' (quoted in Panzarino 2014).

In this chapter I examine these ongoing evolutions to Foursquare's service and business operations as viewed through the lens of 'gamification'. I consider what it means that the company appears to be intentionally downplaying its gameplay elements at the very moment that gamification is said to be gaining wider commercial purchase (Harbert 2014). My argument is that, despite this well-publicized change in corporate direction, the reality is, in fact, rather more nuanced. From a close reading of industry reportage of company developments, the picture that emerges is of the performance of a delicate balancing act that aims to satisfy multiple competing desires and demands with the need for richer end-user-generated data and commercialization opportunities than cannot be achieved through game-driven interactions alone. In short, Foursquare is attempting to maximize its commercial opportunities not just as a mobile check-in service, but, increasingly, as a location platform. These tensions, I suggest, can thus be productively understood as strongly discursive and part of the company's attempts to work across at least four different registers, speaking simultaneously to end-users, advertisers, the trade press and investors in such a way as to 'carve out a role and a set of expectations that is acceptable to each' (Gillespie 2010, 353). I begin this examination by turning to the concept of gamification and Foursquare's integration of gameplay elements into its service.

Gamification and Foursquare

Gamification, conventionally understood, refers to 'the use of game design elements in non-game contexts' (Deterding et al. 2011). Elsewhere the term has been defined in a way that gives explicit emphasis to the commercial imperatives of the concept: 'gamification is a business strategy which applies game design techniques to non-game experiences to drive user behavior' (Welcome to Gamification Wiki n.d.). It is this second definition that best captures *Foursquare*'s embrace of gamification.

Foursquare is commonly regarded as a gamification pioneer, and is widely cited as a successful example of how businesses can integrate gameplay elements into their operations. When it launched in 2009, gamification came

in the form of three distinct features of its user interaction design: badges, a leader board, and honorary titles. With respect to the first of these, individual users could collect a variety of merit-style badges. These often whimsically titled badges were scaled to reward various progressive levels or stages of user engagement. So, for example, new users could achieve the 'Newbie' badge before progressing, following heavy enough check-in use over a given time, to unlocking the 'Super User' badge or the 'Swarm' badge when a check-in was received in close temporal proximity to those of over fifty other fellow Foursquare users. In late 2011, Foursquare also introduced scaled achievement levels within each badge (as well as a small suite of additional badges) so as to, in their words, reward venue exploration and help show individual user 'expertise' (Level up 2011). This meant, for instance, that an occasional café-goer might achieve Level 2 of the 'Fresh Brew' badge, whereas a café-frequenting coffee aficionado might achieve Level 10 of the same badge. As far as Foursquare is concerned, the second user is of far greater interest in terms of the check-in information and recommendations data they contribute to the service's metrics.

The second of *Foursquare*'s three gameplay elements is a dynamic table that maps, in the form of a constantly updating leaderboard, who, in a given user's social network, is achieving the most check-in points over a seven-day period. The aim is to encourage playful competition between members of a user's social network and, presumably, drive up the number of total venue check-ins. Some venues also offer discounts and other deals for these check-ins.

The third gameplay feature encourages *Foursquare's* users to compete with each other to become 'Mayor'. This is the honorary title given to an individual user who has checked in most frequently to the same venue over a sixty-day period.

So successful was *Foursquare*'s gamification integration that it was rapidly replicated by other competing services. For instance, soon after *Foursquare* launched, Yelp introduced a 'royalty' system of its own. Rather than become 'Mayor' of a venue, Yelpers were competing to become Duke/Duchess (most check-ins to a venue), Baron/Baroness (most titles in a neighbourhood), and King/Queen (most in a city) (Siegler 2010). Within the tech sector, numerous other companies have tried to follow *Foursquare*'s (and Yelp's) lead, with Facebook, the Google-owned crowd-sourced traffic information service *Waze*, language-learning platform Duolingo, communication app Line and numerous others, all incorporating game elements into their operations (Mishra 2014).

While games scholars have been scathing about gamification (Bogost 2011), it is a concept that continues to gain wider traction outside of the tech sector in a variety of fields, including education, health, the open governance movement and marketing and advertising, to name a few. The business

sector, in particular, is especially enthusiastic about the potential efficiency and workforce information gains that follow from incorporation of gamification into their enterprise systems (Harbert 2014). International corporate interest in gamification is also growing. For example, in 2014, Thailand-based start-up, Playbasis, announced that it had received \$US770,000 in seed funding to build commercial gamification initiatives in South Asia (Mishra 2014).

While Foursquare is viewed by the technology and marketing industries as a gamification success story, the company's use of gameplay elements within its app has attracted robust critique within media and communications scholarship. One of the concerns expressed in relation to location-based mobile media is that the commodification that structures use of these platforms 'threatens to turn the user into another object within the network, finding value only in the accumulation of a user's movements, locations, and habits' (Farman 2012, 61). This is a particularly strong criticism of Foursquare. A very clear example of this is David Phillips's (2011, 180) claim that, within Foursquare's points system there is an inherent tension whereby the company 'mediates the exchange of social for economic capital'. In a damning assessment, Phillips refers to this as Foursquare's encouragement of 'a sort of competitive sedentary egocentrism' (180). 'One's economic capital may increase', he writes: 'if you get free drinks for enticing your friends to buy' (180). Thus, Phillips concludes, through its incentive structure: 'the places [Foursquare] makes most visible are places of consumption', and, because of this, it 're-entrenches the hegemonic relation of work and leisure, production and consumption' (180). Developing a similar line of critique, Alison Gazzard (2011, 410) suggests that the way Foursquare 'is linked to potential commercial gain' fixes the overall database of potential places that might be accessed 'within a rigid structure of the service industry' thereby undermining Foursquare's credentials as an urban exploration mobile gaming application.

Jordan Frith (2013, 259) makes the point that, while 'we should certainly remain critical of how mobile applications make money off people who use their products, [...] we must do so in a way that recognizes that commercial products can be valuable objects of analysis'. Moreover, what the above critiques of *Foursquare* fail to fully acknowledge is that *Foursquare* was from the outset and remains a commercially oriented enterprise. It is a venture capital-backed technology start-up which, to date, has attracted US\$112 million at a current valuation of around US\$600 million. The point being that this form of funding is by no means an endless stream, and the individuals and companies who have backed the company will want to see a return on their investment, and it is the expectation that those running *Foursquare* – CEO Dennis Crowley and his team – will work hard to fulfil the company's economic and investment return potential.

Even so, for a long time, *Foursquare* – like Twitter, and Amazon before it (Yglesias 2013) – has focused its energies on acquiring a critical mass of users. As Crowley once put it: 'the point isn't to become profitable right now, the point is to grow as quickly as possible, to really push the boundaries of what you can do with location based services on mobile devices' (140 Talks 2011). One of the key ways *Foursquare* set about doing this was via its gamification strategies. As Susan Wu (2014) bluntly puts it in a tweet that forms the epigraph to this chapter: 'social gaming was about customer acquisition optimisation and marketing, not about games'. It is in the context of this remark that *Foursquare*'s recent pivot away from gamification must be examined and understood.

The de-gamification of *foursquare*? From badges to 'location and discovery'

In recent times, *Foursquare* has made a much-publicized strategic shift in direction that has taken it away from gamification. It is a decision generally regarded as a response to persistent questions the company has faced by industry analysts questioning the long-term sustainability of its business (Isaac 2013). Owing to reported slowing in user growth, including in the emerging markets of Indonesia and Istanbul (Evans 2013), and underwhelming revenue generation to date, investors are said to have become reluctant to give the company additional injections of capital investment (Fiegerman 2012). Indeed, the fact that *Foursquare*'s US\$41 million round of investment in early 2013 was a refinancing of debt, rather than an injection of fresh equity, could be seen as confirmation of this. Even so, it has been noted that this was in fact useful for *Foursquare* in that it enabled them to delay a fresh valuation of the business which, if not improved on the 2011 valuation of US\$600 million, could potentially hurt their prospects for ongoing growth or a successful exit (Geron 2013).

Faced with these challenges, rather than choose to exit by selling to an interested buyer, *Foursquare* opted to rethink its corporate strategy, specifically by redesigning the application (and splitting it into two separate apps), as well as the services it offers end-users, and by further honing their still nascent business model, including by building services to cater for business.

With respect to the first of these, *Foursquare*, as one commentator puts it: 'disassembled the entire app and put it back together again' (Griffith 2012). Following the redesign, greatest emphasis and visual prominence within the app was given to local search and venue recommendations capabilities.

The redesign was done, Dennis Crowley maintains, in response to extensive user-experience research that revealed a decline in check-ins by *Foursquare*'s users:

People are using the app, but they're not checking in. [...] I asked myself: did we break something? But in fact, it's because people are using *Foursquare* to look for where their friends are, to find things, and as a recommendation service. It's almost like it doesn't occur to them to check in. (quoted in Lunden 2012)

In light of this, one gamification commentator views Foursquare's decision to move away from gamification not as a mistake, but as 'a mature design decision'. They write, if all Foursquare's users 'all continue to perceive value in the service without the gamification (which seems like the case), then why have it? Gamification isn't any service's endgame; it's a design construct to engage users further' (Kuo 2013).

Crowley's response to this realization was, on the one hand, to repeatedly downplay the importance of gamification, while, on the other hand, introducing new functions, such as 'Explore', a feature aimed at what Foursquare's head of search sees as the app's next generation of users (Griffith 2012). In essence, Explore is a recommendations and ratings system - or, in the words of one commentator, an 'interactive city guide' (Gobry 2012) - utilizing a series of metrics drawn from each user and their social network history (including tips, likes, dislikes, popularity, local expertise and so on) (Kerr 2012). This information is then targeted to that user in the form of 'recommendations for places you would probably like to visit based on your profile and check-in history' (Goldman 2012). Accompanying the Explore feature is an upgraded website, which is said to attract 1 million visits per day, with a prominent search box (Kerr 2012) – arguably in recognition of the fact that a considerable amount of entertainment planning occurs at work or in the home. In addition to the above, in 2013 Foursquare also created for its iPhone app a series of venue-related questions (such as, is it quiet here? would you grab a quick bite to eat at this venue? does it have Wi-Fi?) that pop-up when users check-in (Foursquare filling 2013). This enables Foursquare to further populate its places database with 'richer' crowd-sourced venue information.

In a second development for its end-users, in late May 2013, *Foursquare* added what it calls 'super-specific search' to Explore (Welch 2013). This applies a range of filters to search results that combine common queries (such as price, opening hours and so on), with additional information drawn from check-ins and user data. By September, restaurant menu search capabilities had also been added (Sterling 2013). Thus, in Crowley's words, *Foursquare*

is no longer about leader boards, badges and points; it's about local search and discovery.

With respect to the sharpening of its still evolving business model, Foursquare focused on the building of merchant platforms. These initiatives fit squarely with Foursquare's plans to 'get most of its future sales from software that helps merchants track the behavior of potential customers' (Crowley quoted in Chang and MacMillan 2011). While Foursquare already collects some revenue through strategic partnerships with competitors and a variety of companies (Van Grove 2013), these recent developments are quite different in that they want businesses to pay for help in analysing the data generated through Foursquare's service by its users (Chang and MacMillan 2011). Foursquare's 'first revenue-generating product' (Fiegerman 2012), launched in 2012, was 'promoted updates': advertising messages sent to users who are in the vicinity of a restaurant or other business. What distinguishes this service is that, rather than buy 'advertising impressions', participating brands pay on a 'cost-per-action model related to how consumers interact with the updates' (Kelly 2012).

The second business feature was the *Foursquare* for Business app (*Foursquare* Blog 2013a; Isaac 2013). Launched in early 2013, it allows businesses to offer 'digital punchcard' deals when users check-in, as well as send messages to regulars (Isaac 2012). Additionally, by October 2013, they had also opened up *Foursquare* Ads to all small businesses around the world (*Foursquare* Blog 2013b) and, by early 2014, had partnered with ad tech company Turn to deliver ads to its users on desktop computers, tablets and mobiles (Delo 2014).

Soon after unveiling these services, in December 2013, Foursquare announced that it had raised a further US\$35 million from a Series D funding round, led by investments from DFJ Growth and the Capital Group's Smallcap World Fund (Swisher 2013). As part of the deal, DFJ Growth's Barry Schuler, a former AOL executive, secured a board seat at Foursquare (Swisher 2013). Crowley's explanation of the timing of the new investment (and perhaps giving insight into why the previous round of financing was a restructuring of debt rather than fresh equity) was that it was harder to secure new funding until the revamped app functionality and business services were up and running. Crowley states: 'We had not been able to demo what we were talking about until it was out there. [. . .] But once it was in place, it was easier to see [and convince investors of] where we are going' (quoted in Swisher 2013).

Further corporate partnerships and deals have followed since. For instance, in February 2014, *Foursquare* further built on its local search service, and the small business opportunities this presents, by striking a deal in Brazil with the group buying platform Peixe Urbano (the Brazilian equivalent of Groupon),

which allows *Foursquare* users to find offers in establishments near to them (Mari 2014). This is not a particularly surprising move given that Brazil forms another key emerging market for *Foursquare*. More significantly, in that same month, *Foursquare* announced that it had formed a partnership with Microsoft worth US\$15 million (Tate 2014). As part of this arrangement, Microsoft will make additional 'substantial' regular payments to *Foursquare* for access to its proprietary location data (Tate 2014). It is a deal that is viewed as Microsoft's attempt to compete with Facebook and Google in the local mobile search and advertising markets (Tate 2014). However, for *Foursquare*, the success of the deal was arguably soured by news, less than a week later, of a similar, competing data partnership deal struck in the United States between Yahoo! and Yelp that will mean that Yelp's listings and local business reviews will be incorporated into Yahoo!'s search results (Griffith 2014).

For end-users, the biggest change came with Foursquare Labs Inc.'s decision to 'unbundle' its service, splitting it into two (interconnected) apps: Swarm (for social and check-ins) and a rebranded *Foursquare* (for local search and discovery). Initially, many of the gameplay elements – badges, leader boards, mayorships – remained available to users (albeit somewhat hidden within the mobile app interface). However, following various updates, these elements, once synonymous with *Foursquare*, have now been removed, with badges replaced within Swarm by 'stickers' (Zeckman 2014).

Meanwhile, within specific international markets, *Foursquare*'s traditional gameplay elements were actually further bolstered. For example, it was over the course of *Foursquare*'s alleged pivot away from gamification that the company released a series of new badges in Turkey, including a Vogue Türkiye badge, and one each for two of the country's major football clubs, Galatasaray S. K. and Fenerbahçe S. K., both of whom are based in Istanbul, one of *Foursquare*'s key growth cities. More recently, Crowley is also reported as restating the importance of gamification for *Foursquare*: 'Crowley thought the game mechanics would drop off over time, though he's since realized they've become integral to *Foursquare*'s success. But he doesn't want the company to be known as simply a glorified check-in service' (Colon 2014). The inclusion of stickers within Swarm could be seen as an admission that retaining some gameplay aspects remains important.

The above quote by Colon, I would suggest, is also illuminating in hinting at what is really at stake in *Foursquare's* concerted refocusing of its business over the past few years. The issue here is not so much a retreat from gamification. Rather, the real pivot, I would argue, is in moving from a stand-alone mobile social software (check-in based) application to a more overtly commercially focused *location platform*. In making this shift to a *platform*, Crowley and his team at *Foursquare* 'must speak in different registers to their relevant

constituencies, positioning themselves so as to best suit their interests in each moment' (Gillespie 2010, 354).

Gamification and the discursive work of platforms

Attempting to reinvent the company in this way requires the performance of a delicate balancing act, one that aims to satisfy multiple competing desires and demands with the need for richer end-user-generated data and commercialization opportunities than cannot be achieved through game-driven interactions alone. These tensions, I suggest, can thus be productively understood as strongly discursive and part of the company's attempts to work across at least four different registers, speaking simultaneously to end-users, advertisers, the trade press and investors in such a way as to 'carve out a role and a set of expectations that is acceptable to each' (Gillespie 2010, 353). I close this chapter by providing a brief account of some of these 'registers' and the messages that *Foursquare* is attempting to convey to each.

For Foursquare's so-called next generation of users (Griffith 2012), such as those new to the service, the message is that gamification is passé and that hyper-local search and recommendations are what will drive engagement with the service. As a longer-term strategy, this makes sense. Also, from my own research investigating Foursquare end-use in the Australian city of Melbourne, it became clear that more casual users of the service also happened to be those who were less motivated by the gameplay and more focused on the commercial and search aspects of the service, such as by building lists of venues they hope to visit at a future date and by looking out for special offers, deals and discounts and so forth.

Speaking in this register, however, is less likely to be effective with Foursquare's high-end users who are 'seriously engaged with the platform' (Gobry 2012). The trick for Foursquare will be in managing commercial and new user growth, without ostracizing this core constituency of early-adopter, 'super users' – those initially drawn to Foursquare's gameplay elements. Crowley's recent admission that game mechanics are 'integral to Foursquare's success' I would suggest should be taken as a direct address to, and attempt at appeasing, this particular constituency.

As Carlos Barreneche (2012) notes: 'marketing services and local advertising are the main pillars of the current location-based services business model'. In the register for advertisers, *Foursquare*'s message has consistently been about the depth of end-user information contained in its point-of-interest

database in relation to what marketers call SoLoMo (social, local, mobile) patterns of social interaction, movement and consumption.

Within the register of tech trade press reportage, the issue has been one of attempting to mould industry perception of *Foursquare*. In his interviews and quoted statements, a common refrain of Crowley's is how he and his team are edging ever closer to his long-held desire for *Foursquare* to become the 'location layer of the internet'.

And, if *Foursquare* is hoping to become the location layer of the Internet, then its points-of-interest database is the rich vein of data beneath this layer ready to be mined. *Foursquare*'s ability to parse geolocational and user check-in data has become 'key to its monetary strategy' (Goldman 2012). Key to *Foursquare*'s monetization strategy, at least in the long term if not immediately, is the further enrichment of and strategic commercial exploitation of this dataset; it is this information resource that holds clearest value for advertisers and marketers, as well as pushing the firm closer to profitability – or, at very least, an acceptably high exit valuation. This is the register that *Foursquare*'s investors understand.

In this final section of the chapter I have argued that *Foursquare*'s recent repositioning moves are productively understood as strongly discursive and part of the company's attempts to work across a number of different registers, speaking simultaneously to end-users, advertisers, the tech trade press and investors, among other stakeholders, in such a way as to 'carve out a role and a set of expectations that is acceptable to each' (Gillespie 2010, 353).

Foursquare's repositioning efforts, it would appear, have been as much about carefully tending to the language that they (and the tech press and other interested parties) use to describe the Foursquare platform, and the 'technological imaginaries' that thus form around it, as it has been about tending the 'digital enclosure' they have built around location data and its commercial exploitation. In Tarleton Gillespie's (2010, 359) words, these are efforts, ultimately, that seek 'to make claims about what these technologies are and are not, and what should and should not be expected of them. In other words, they represent an attempt to establish the very criteria by which these technologies will be judged, built directly into the terms by which we know them'.

For at least one commentator, Foursquare's unbundling and the removal of its gameplay elements, has been 'a disaster from the start: the move didn't result in two strong communities, each built around their app's set of distinct use cases. Rather, it alienated Foursquare's loyal users, who by and large never made the move over to Swarm' (Carney 2015). Foursquare's longer-term future remains unclear and much will hinge on the ability of Crowley and other key company spokespeople to continue to speak across the

aforementioned four registers. The company's recent introduction of direct and group messaging to Swarm (Weber 2015), presumably in order to stay relevant in the face of the rise of WhatsApp and other messaging services, many of which have integrated geolocation functionality, suggests that these repositioning efforts are ongoing.

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PART FOUR

New markets

14

Social games and game-based revenue models

Mark Balnaves and Gary Madden

asual, social games are estimated to engage more than 200 million worldwide with revenues of US\$6 billion on mobile, iPhone, social networks, PC, Mac, Xbox LIVE Arcade platforms (CGA 2013). The name of the game is freemium for this economy. Freemium provides players with free access to games. Those players who want to upgrade the look and feel of the game or other additional amenities pay for it. *Tetris*, created in a Soviet lab, was arguably the first casual game, tied to the Japanese *Game Boy* in its creation. *Tetris* was also the first casual game to show the possibilities of monetization of this phenomenon. In this chapter the authors look at the games-based revenue models and how they are evolving, providing a background to the development of the industry itself.

Consoles and platforms

The monetization of games has emerged because of a complex interaction between the technologies of gaming, the technologies of cooperation – the capacity to interact with other players – and games design itself (Juul 2012). Table 14.1 demonstrates this trajectory in the different generations of game

Table 14.1 Console generations

Generations	Period	Distinctive features
First	1972–6	Logic circuits/ but no-microprocessor (e.g. Magnavox Odyssey, Pong)
Second	1977–84	8-bit machine / Replaceable ROM cartridge flexibility (Atari 2600, Intellivision)
Third	1985–9	8-bit / Mega drive (e.g. Nintendo Entertainment System or NES in the US market, and Sega Master System in Europe, Atari 7800)
Fourth	1990–5	16-bit / Nintendo, Sega, handheld (Super NES, Game Boy System, PC-Engine)
Fifth	1996–2000	32-bit and then by 64-bit / Rise of 3D games (e.g. Sony PlayStations, Nintendo 64)
Sixth	2001–05	128-bit / Built-in modem for Internet support and online play (Sony PlayStation 2, Nintendo Game Cube, Microsoft Xbox)
Seventh	2006–10	High definition (HD) graphics / Wi-Fi connectivity (e.g. Sony PlayStation 3, Nintendo Wii, Microsoft Xbox360).
Eighth (Current)	2011- present	Platformization, Built-in Touch Screen / sensor perceived motion control (e.g. Nintendo 3DS, PlayStation vita, Xbox One)

platform and technologies. By the eighth generation players can interact with others on consoles and the consoles themselves are now platforms for other services in an online environment.

Before the console generation began, the first commercially launched video game was arcade type. Bushnell and Dabney created coin-operated 'space war' that was subsequently bought by Nutting Associates. They manufactured and released 1,500 pieces of the game in November 1971, though it was a failure because of its steep learning curve. Bushnell and Dabney founded Atari Incorporated in 1972 and released another arcade game, *Pong*, which was highly successful and sold about 19,000 *Pong* machines that year.

The *first-generation* consoles were based on dedicated logic circuits without any microprocessor. Once a game was created, it was not possible to add new features or change it. Magnavox first released Odysseys through the home console in 1972 for the US market and succeeded in selling 100,000 Odysseys that year. The *second-generation* consoles appeared in 1977 with a replaceable cartridge feature. The flexibility of changing cartridge made it possible for players to build their own libraries of game collections. The arcade game and console market went hand in hand. The game market, however, crashed in 1977 when old *Pong* machines and other clones were re-sold at a very low stock-clearing price. Fairchild and RCA left the home console market while Atari and Magnavox operated with losses. The game market returned with the release of *'space invader'* in 1978. This application enabled Atari to quadruple sales and recover from earlier losses (see also Castronova 2006).

The game industry faced another crash in 1983, but not before the arcade and console market had gained combined revenue of US\$11.8 billion in 1982. For the first time the game market surpassed the combined revenue of popular music (US\$4 billion) and Hollywood films (US\$3 billion) (Castronova 2006). A mid-1980s crash was marked by the demise of the second generation and subsequent rise of the *third-generation* consoles. Nintendo Entertainment System (NES) and Sega Master System (SMS) dominated respectively the North American and the European market with their 8-bit machines in this period. Cartridges were losing popularity to CDs because of the lower cost and reliability of CDs.

The *fourth-generation* console came up with a CD feature in 16-bit machines. PC-Engine released in this period by NEC faced severe competition from rival products such as Sega Mega Drive, CDi and Atari Jaguar. *Game Boy* – a handheld battery-powered plastic device – released players from arcade rooms. It was bundled with a single cartridge *Tetris*. *Tetris* is a simple puzzle game with the sole goal of rotating falling blocks in order to build the most efficient walls. *Tetris*'s graphics were worked well on the *Game Boy*'s small grey-scale screen with no blur in the motion. The pairing of *Game Boy* and *Tetris* sold more than 70 million copies. *Tetris* is the forerunner of *Angry Birds, Bejeweled, Fruit Ninja* and key casual games (Heeks 2010a/b).

Video consoles entered the *fifth generation* with 3D games. Nintendo 64 and Sony PlayStation were two popular products of this era. In the *sixth generation* Microsoft Corporation entered the console market with Xbox, while Sega left the hardware market. Although others had already adopted CD drives for their games, Nintendo for the first time introduced its game cube consoles. Increasingly complex, sophisticated and adult content were being introduced in the console-based games. Easy access to Internet services with faster connectivity took the gaming world online into the *seventh generation*.

EverQuest, World of Warcraft and Ultima Online became highly successful massively multiplayer online role-playing games (MMORPGs). As memory and processing power of mobile phones increased, mobile phones also became a popular platform for playing games. Revenue from mobile gaming market surpassed US\$5 billion in 2007 accounting for one-fourth of all game software revenue (Woodcock 2008). Nokia's N-series and Apple's iPhone were active in this market. Motion control systems started to constantly revolutionize the interaction methods in gameplay. Sony released PlayStation Move in 2010 that tracks player movements with an eye camera. MMORPGs also dovetailed with the growth of virtual currency platforms. Virtual currency in these contexts often had unexpected effects:

Massively multiplayer online role-playing games (MMORPGs) – such as *World of Warcraft* and *EverQuest II* – attract an estimated 50 million players worldwide. To excel at these games and move to higher levels, gamers need to accrue a certain amount of wealth, which can be very time consuming. Filling this niche, an estimated 100,000 to one million gold farmers, mostly concentrated in China, spend their days in gaming factories amassing virtual gold in various MMORPGS which they then sell to other players. This is a sizable industry, which may bring in as much as \$1 billion in annual trade. But . . . this is a controversial practice, and though it helps thousands of gold farmers earn wages equal to those of factory workers, it goes against the rules of the games. In fact, companies that market online games are retaliating by either banning players who they believe are gold farmers or by taking legal action against them. (Seto 2009; Yoon 2009; Heeks 2010b; see also Paying for Pixels 2011; Dibbell 2012)

In the *eighth generation*, platformization, cross-platform game market there is now high-speed Internet in industrialized countries, established payment systems built into games and mobility. There is also a decline in the value of console hardware and increasing value in software. The mobile side of the games economy platforms has also emerged as key for the future.

Thus, a new approach emerged from 2008 . . . It consists of a 'platformisation' of the mobile ecosystem in which main players group together – in a loosely or tight cooperative scheme – all the required roles for the provision of the mobile offering on a common set of hardware, software and techno-economic specifications. The resulting scheme reduces transaction costs (agreements are typically pre-defined) and also development costs as far as the resulting platform is massively adopted by final users. Each platform includes a number of 'gatekeeper' roles as a

way to control the evolution of the platform and to secure the revenues. In the case of mobile games the crucial roles would be: (i) the development environment, i.e., a set of development and hosting tools for third-party service developers such as game studios and publishers; (ii) the profile/identity/context management: a component that manages user data and user preferences for different situations; (iii) the provisioning/brokerage: it represents the reference point for end-users to retrieve, subscribe and use games (ownership of an application store as a main example); and (iv) charging and/or billing of mobile games. Control over one or a combination of these four roles can lead to platform dominance within the ecosystem. Therefore, new platforms are emerging trying to include as many of these roles as possible in a new type of competition. (Feijoo 2012, 81)

Apple's App Store now accounts for 65 per cent of total mobile revenues globally, with Google Play in the background. Much of Apple's success is due to the success of games monetization across all countries, accounting for 71 per cent of total revenues (Distimo, October 2013). In the overall games market it is the multi-screen use, the time spend that is seen as a key to future revenue generation (Lehdonvirta 2009; Lescop and Lescop 2014; Rayna and Striukova 2014).

The authors argue that it is not possible to separate the rise of social, casual games from the rise of the game industry as a whole and its technologies. The dominance of the console market is being challenged by the emergence of new players and new platforms. By the time that Facebook trialled its first games *Barn Buddy* and *Happy Farm* in 2009, the technologies already enabled sophisticated social interaction. Facebook management already had access to data on the success of earlier casual games in the console markets, for example *Tetris*. What was new in Facebook as a technology of cooperation was in the virtual currencies that went with the games and the provision of high-quality graphics with the simple casual games such as *Farmville*. Facebook, in effect, became a platform for casual games development, as the list of top content providers to Facebook in 2011 demonstrates.

Facebook's experience demonstrated to the games business that while only 1–5 per cent of a social game's audience purchase virtual items, the big spenders were key to success. The big spender spends more than US\$25 per month, on average. Big spenders represent only 15 per cent of a game's paying users, but account more than 50 per cent of revenue. Most payers spend only US\$1–5 a month and generate less than 15 per cent of a game's revenue, in aggregate. The social games revenue stream is 20 per cent from advertising, 20 per cent from offers and 60 per cent from virtual goods (De Prato et al. 2010; CGA 2013).

Table 14.2 Top content providers to Facebook 2011 against daily active users (DAU)

		DAU
1	Zynga	46,040,192
2	Electronic Arts	12,367,782
3	Wooga	7,518,000
4	6waves Lolapps	5,306,300
5	King.com	5,270,000
6	PeakGames	4,580,400
7	Playdom	3,890,330
8	Tetris Online	2,100,120
9	GSN	1,852,292
10	Happy Elements	1,866,700
11	Playtika	1,680,000
12	MindJolt	1,511,252
13	Digital Chocolate	1,306,202
14	DoubleDown Interactive	1,300,000
15	KIXEYE	1,079,000

Source: Casual Games Association 2013.

The value chain and revenue models

Facebook and Apple have provided platforms where developers can trial games. A number of actors take risks in the production of casual games. From the production of the game to the final consumers the different actors split their share in the total revenue pie according to their cost-sharing, risk-taking and bargaining power. As games enter new generations, various actors reposition themselves on the value chain and revenue models are shaped accordingly.

Developer: The artistic content of a game and all the technical activities required (e.g. the game engine) are handled by developers. They can act on their own as a small studio selling their products independently to the publishers or through distributors to consumers and assume all the risk involved in monetizing the game. In the case of many casual games the developers have to finance their own activity from their own savings or from venture capital. Alternatively, they can work for publishers and receive an agreed-upon contractual payment stream. Console manufacturers can often have their own in-house developers working for them.

Publishers: Publishers are responsible for bringing the game to the market. Most of the games are funded by publishers during the development phase. As a result, publishers are in effect in control the type of game that appears in the market. Publishers manufacture the game and take its marketing responsibilities. Some well-known publishers in the game industry are Electronic Arts, Sony, Activision Blizzard and Code Masters.

Distributors: Once products are ready for final use, the distributor's role is to make the products available to the consumers from the retail outlets. Introduction of digital distribution has substantially changed the market structure. Digital distribution allows game sellers to cut cost on physical logistics. Developers and publishers can now bypass distributors and retailers to directly deliver the product to the consumers. Retailing jobs are now taken over by portals in the digital age. Yahoo! Games and Orange are two such portals for distributing online casual games. The idea of digital distribution has created a new genre of revenue models based on selling virtual goods online. Almost all current generation consoles (Sony PSN, Microsoft XBLA and Nintendo Wii ware) support online buying of games from digital distribution channels.

Retailers: Consumers have direct contact with retailers who allocate their shelf space for the product and provide customer care and aftersales service to the ultimate buyers. Retailing decisions depend to a large extent on factors such as opportunities for market growth, margins obtained and cost of serving the customers. Although there are no outlets under brand names, some big retailers such as Wal-Mart and FNAC have major shares in the retail sell. Game distribution through retailers has the advantage that the products displayed on shelves acts as advertisements to the general shopper. Buyers who do not have access to online payment systems can still buy the game from retailers. It should be noted that roles played by various actors in the revenue chain are not mutually exclusive. The role played by one party can be taken over by another. Developers, for example, can publish and distribute their own games. In case of online games some new actors can invade the revenue chain. Service providers such as web portal hosting services, credit card companies and network carriers take a big slice of revenue from the distribution channel.

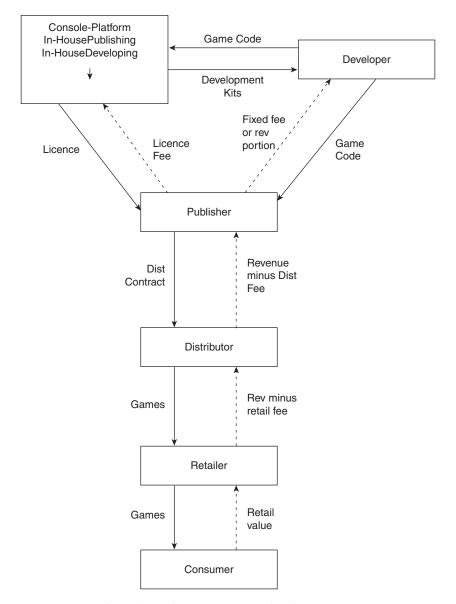


FIGURE 14.1 *The traditional games revenue value chain.*

Source: Adapted from Phillips et al. 2009.

Figure 14.1 provides an overview of the traditional revenue chain ecosystem for the games economy. Just as there are different roles in the value chain for the games business, there are different revenue models that are possible in the online and offline games markets.

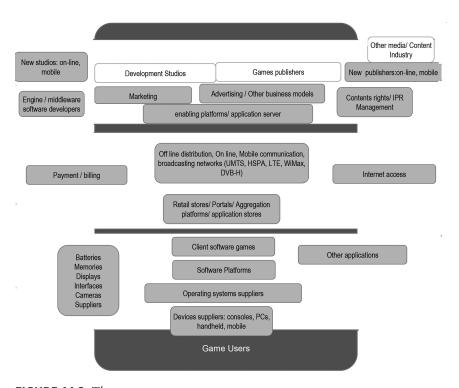


FIGURE 14.2 The new games revenue ecosystem.

Source: Adapted from Simon 2011.

However, in the new games ecosystem and platformization there is now room for new entrants in different segments of the value chain, competing with the traditional market-dominant players. 'Some segments are declining (consoles and PCs), while others are growing fast (online and mobile games). Regions display specificities with the respective share of each platform.' Figure 14.2 shows the new ecosystem showing the dynamism of the modern segments.

Revenue models

The online and offline games market can be described as a differentiated oligopoly market where a limited number of game producers create their own bundle of multi-attribute products for players. Since price competition is intense for homogenous products in the oligopoly market game producers compete in other dimensions. Varieties are introduced in games by segmenting them into action, social interactive or historical legendary types. However, as the gaming population is very large, the market structure supports multiple agents producing similar games.

There is no single business model that can be applied to all types of games. From the first *Pong* machine to the latest online casual games, various types of innovative models have been applied to monetize games. Traditional offline games usually apply 'pay – play – stay' strategy while 'play – stay – play' fits well with online games. By 1980s the arcade video game industry had an income of between US\$5–7 billion with 24,000 full arcades, 400,000 street locations deploying 1.5 million arcade video games (Wolf 2008, 4). By 2011 the arcade market had dropped back to US\$1 billion (see also Kocurek 2012). Online games differ in several ways from the offline games. Offline games earn revenue by selling the game once and for all, but the same online game can be sold repeatedly to the same or new customers. Keeping customers interested in the game is important for sustained revenue generation for online games. Wi (2009) defines offline games as *retail industry* and online games as a *service industry*. Various types of revenue models can be broadly categorized under offline and online games.

In fact all games producers offer various types of packages to attract a larger customer base. Game-based revenue can also accrue to parties not involved in the revenue chain. Player-to-player trading of virtual goods falls under this type of revenue generation. Skilled players can be employed by a novice to earn in-game item, paying the skilled players with real money. Games are sometimes purchased as investment goods that generate future income flow as they are sold to consumers for pay-per-play or pay-per-time.

Before the introduction of online games in the early 1990s, all games were offline. Browser-based online games are usually played with PC keyboards instead of dedicated joysticks that are integral parts of offline game consoles. Offline games are still popular among some segments of the gaming community. Piracy is a major issue for implementing revenue from offline games. To play online games a player needs to access the server maintained by the game developer or the Internet Service Provider (ISP). Online games are more secure from illegal copying because it does not allow for downloads and game contents are periodically modified to keep players interested in the game.

Online game revenue models have been tailored to meet customer requirements so that maximum participation is ensured. Some players prefer to play multiple games during a month while others stay on a single game. Three types of plans are available to accommodate or attract various types of players.

1 Set amount plan: Users pay a monthly fee for unlimited access to a game. Long-term contracts, for example for three months, are usually cheaper than short-term contracts of one month. Players committed to a particular type of game are attracted to this type of plan.

- 2 Set volume plan: Users buy the gameplaying time instead of the calendar time. Players can play the game at their convenience. This type of pre-paid plan is convenient for occasional players.
- 3 Partial pay plan: The basic concept here is that a part of the game is offered free and the rest is charged. The freemium (<u>free + premium</u>) model, fall under this type of plan. The partial pay model was first applied on the social network sites (SNSs). This has been rapidly adopted by other games as well.

An example of price charged according to the first two plans for the case of *World of Warcraft* is shown in Table 14.4.

The set amount and set volume plans can be sold at wholesale rates to Internet cafés that can retail on-sell these products according to their own plan. Per computer unlimited access for a specified duration is offered under the first-type of wholesale plan and a large bloc of game-time that can be employed simultaneously over up to seventy computers is offered under the second plan. Internet cafés find it profitable to buy popular games under the first plan and less popular games are suitable under the second plan. Some game companies sell virtual or in-game money through Internet cafés and share profits with them. This is known as an items—cash transaction.

Emerging Chinese markets

For Bourdieu economic capital literally dominates all other forms of capital, even though there is a 'hierarchy of the different species of capital' across different fields (Bourdieu and Wacquant 2005, 98). Casual games represent a whole economy, a whole system of technology, trade, audiences and community. They are not going to disappear overnight and they are only going to grow. The community side to casual games should not be underestimated in any understanding of games as an economy. The 2014 Chinese Lunar New Year festival (31 January to 14 February) created the largest modern migration of humans with over 3.6 billion trips undertaken within China. WeChat, a Chinese micro-messaging application available globally created a feature called Red Bags to accompany the festival period. The Red Bag digitally imitated the Chinese Lunar New Year tradition of 'hong bao' - 红包 - where elders pass money to the young to encourage prosperity and provide good blessings. The red bags themselves imply a range of expectations that do not need to be made explicit. Unlike the tradition of adults giving physical red packets to children or colleagues, or married couples to unmarried people, the WeChat feature

Table 14.3 Revenue models by game type

Game type	Revenue model	Description / features
Offline	Brick and mortar / retail	Games contained in hardware (CDs, magnetic tapes) are handed over to consumers for money. Buyers can use the game as many times as they wish. Player concentration during gameplay is relatively lower than in situation where gameplaying is purchased for time.
	Resale	Users recover part of the cost by re-selling while re-sellers create a new market and earns profit from it. (GameStop Uses this technique)
Pay-per-play		Users pay for a pre-set number of lives and can play as long as they can last.
	Advertising	In game – e.g. the hero may wear a particular brand sunglass or t-shirt. Out game – A banner may be placed around the gameplay window showing some advertisements. Charges are based on per viewer or per click. Through digital distribution the whole game is retailed, while the selling of virtual items mentioned later involve offering tiny in-game items for few cents.
Online	Digital distribution	It works as a retail counterpart of offline games. Payments are made through credit cards, mobile phone or PayPal. Changes the role of actors in the revenue channel.
	Subscription- based model	Paid monthly (as in <i>WoW, Conan, Final Fantasy XI, Lineage II</i>) by credit card or automatic debit payments. Suitable for online MMORPG-type games where retention of customers are important.

Freemium model	Basic version of the game often offered free (hence, freemium model), but charged for the premium version.
Selling virtual items	Online gameplaying environments are constantly updated to keep players interested in the game. Revenues are made by selling virtual goods that are required to access the new features of the game. Virtual goods are usually low-value items and availability of micro-transaction facilities nurtures this type of revenue models. Examples are <i>Lineage</i> , <i>World of Warcraft</i> .
Online advertising	Users are exposed to advertising in many ways. For example, when searching free catalogue offered by some game portals, advertise may pop-up onsite. Moreover, while playing, in-game advertisement may also appear. Web-based board games in USA use this type of revenue models.
Trail-ware / try before you buy	Allowed to play the game for a restricted period of time. If the customers like the game and want to continue to pay the game beyond that point they have to buy the game.
Pay for time	Similar to pay-as-you-go model. Customers are charged in accordance with their duration of stay with the game.
Tournaments	Some online games, especially the sports-type games, involve rivalry between two groups of players. Tournaments can be arranged and fees charged from the participants.

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Set amount	Set volume
7 days (1 week plan) – \$8.80	5 hours (300 minutes) – \$4
30 days (1month plan) – \$25	30 hours (1,800 minutes) – \$15
90 days (3 months plan) – \$60	

Table 14.4 Product price plan of World of Warcraft (prices in US\$)

Source: Wi (2009).

encouraged people to give 'lucky money' to *anyone*. *Red Bags* became an instant hit during the Chinese Lunar New Year festival. Deputy General Manager, Tenpay Group, of WeChat Yi Wu saw in the *Red Bags* phenomenon the strong tie between casual games and community and the modern economy (Han and Xu 2014). The *Red Bags* event, at first glance, does not look like a game, but the exchanges and choice of exchanges had game-like characteristics.

China is now creating platforms that are multilingual, including translation services such as WeChat, that will be competing with services in Western countries. The growth of the social media market in China, as shown in Table 14.5, represents a scale that overshadows many countries. The role of virtual currency and currency platforms in the casual games market should not be underestimated. China has linked future service to cloud-based models.

Online gaming in the People's Republic of China represents one of the largest and fastest growing Internet business sectors globally, estimated at US\$9.7 billion with online gaming accounting for 90 per cent of this revenue:

The Chinese online gaming industry illustrates two striking facts. The first is that the number of consumers and their spending have grown extraordinarily fast: in absolute terms far more people are online to shop, play games, search, watch videos and use social media in China than in any other country. The second is that consumers are spending almost all of that time and money on Chinese Internet platforms. (De Prato Feijoo, and Simon 2014)

Cloud-enabled business models will play a major role in monetizing online games and casual games in particular. In a cloud-based system, the critical functions of marketing sales and customer relationship management (CRM) services can be obtained from a cloud computing company such as salesforce. com with much greater flexibility and reduced cost. Depending on company requirements, cost and speed, the complexity of the service can be adjusted according to need. Small- and medium-scale game developers can access the expensive CRM software by buying it as a service from some cloud-enabled companies instead of obtaining the whole software platform at a higher cost.

Table 14.5	Main	platforms	for	social	media	in	China
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Program	Owner	Active users (millions)	Platforms available on
QQ	Tencent Holdings	800	Desktop, Mobile
Qzone	Tencent Holdings	600	Desktop, Mobile
Weixin (WeChat)	Tencent Holdings	355	Mobile only
Sina Weibo	Sina Corporation	536	Mobile, Desktop
Tencent Weibo	Tencent Holdings	250	Mobile, Desktop
RenRen	China InterActive Corp	100	Mobile, Desktop
Douban	Yang Bo	100	Mobile, Desktop

Source: Adapted from Chinese Internet Networking Information Centre (http://cnnic.cn/).

The software companies also benefit because they can access a larger client base at lower prices. Figure 14.3 compares these two revenue mechanisms.

The benefits of this new type of model include that: games can be bundled differently according to the player requirements, and players need not buy the whole game and worry about its maintenance or future upgrade. The responsibility now resides with cloud-based service provider.

Conclusion

Casual games and their freemium models are increasingly going to be the entrée to currency platforms in cloud-based services – real and virtual – and elsewhere online. The rise of item brokers demonstrates the shift from games as retail to games as service. Virtual monies of one game can be exchanged for virtual monies of other games through online brokers such as

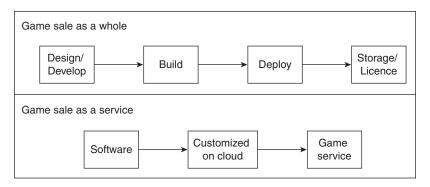


FIGURE 14.3 *Flow of the new games revenue ecosystem.*

Items Mania or Items Bay. Items brokers make profit by taking a cut, around 5 per cent, of the transaction. They in return provide security and safety of transactions. Ten years ago, in 2004, the Korean items trade market was already worth US\$800 million and that grew to US\$1.5 billion by 2008 (see Lehdonvirta 2008, 2009; Yoon 2009; KCCA 2012). This market size exceeds revenue earned by many game developers. Economies of this size of course experience all the characteristics of traditional economies, including inflation. Economies of this size have also not gone unnoticed in terms of potential tax revenue and regulation, beyond the compass of this chapter.

In this chapter the authors have argued that the overall games economy cannot now be separated from the casual games economy and the platformization of the value chain. Platforms have become the new intermediaries. The industry has witnessed a process of disintermediation where developers can reach consumers directly and from re-intermediation in the value chain. The nature of the platforms is not the only thing that has change. The gamers themselves are now diverse. The hardcore gamer is now joined by the mid-core gamer who wants a fuller experience, but still casual, and the casual games gamer who wants a quick fix.

In the long term there's no reason why the casual [games business] would not overcome the hardcore business because there are more people that are interested in buying casual. Yves Guillemot, Ubisoft CEO. (Evangelho 2013)

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15

Angry Birds as a social network market

Tama Leaver

he hugely successful mobile game Angry Birds, and subsequent franchise built around it by Finnish company Rovio, is synonymous with the new and growing market of app-based games played on smartphones and tablets. These are often referred to as 'casual games', highlighting their design which rewards short bursts of play, usually on mobile media devices, rather than the sustained attention and dedicated hardware required for larger PC or console games. Significantly, there is enormous competition within the mobile games industry, while the usually very low cost (free or just one or two dollars) makes a huge range of choices available to the average consumer. In 2013 when Apple celebrated the 50 billionth app download from the App Store, their charts revealed that at that time Angry Birds was the most downloaded paid iPhone app of all time, with three other Angry Birds variants making the top twenty-five list, and all four of these Angry Birds games also featuring in the top twenty-five paid downloads for the iPad as well (Viticci 2013). By May 2015 there were approximately 1.68 million apps in Apple's App Store, with over 366,000 of those being games ('Count of Active Applications in the App Store' 2015). Choice between these games is usually framed by just one standardized interface, such as the Google Play store for Android-powered devices or the Apple App store for iOS devices. Within this plethora of options, I will argue that in addition to being well-designed

and enjoyable to play, successful mobile games are explicitly and strategically positioned within a social network market.

The concept of social network markets reframes the creative industries (CIs) not so much as the generators of intellectual property outputs, but as complex markets in which the circulation and value of media is as much about taste, recommendations and other networked social affordances (Potts et al. 2008). For mobile games, one of the most effective methods of reaching potential players is therefore through the social attention and activity of other players. Rovio have very deliberate and widespread engagement with players across a range of social media platforms, promoting competitive play via Twitter and Facebook, highlighting user engagement such as showcasing Angry Birds themed cakes, and generally promoting fan engagement on many levels, encouraging the 'spreadability' of Angry Birds among social networks (Jenkins, Ford and Green 2013). Moreover, Rovio have taken an approach to piracy and copyright in certain countries, such as China, which is less about litigation and more about encouraging the dissemination of Angry Birds globally.

This chapter opens by situating Rovio as consciously positioning *Angry Birds* within a social network market, aiming to increase the spreadability of their games and distinctive iconography. The chapter will then explore the way the narrative openness of the games encourage the development of paratexts, of related narrative spaces that players and fans can explore and build upon. Following this, the way Rovio engages with fans and players in a co-creative manner is explored, highlighting the centrality of fan activity in directing the development of the *Angry Birds* franchise. Finally, the chapter will draw these threads together, arguing that the frequent updating of apps, unlike larger games, allows Rovio to change and respond more swiftly, not only responding to audiences and players, but also deploying each and every *Angry Birds* app as a social network amplifier, acting in a similar manner to many content platforms.

Social network markets

In their analysis of the operation of the Cls, Potts, Cunningham, Hartley and Ormerod (2008) argue that rather than conceptualizing the Cls as an industrial system – that is, focused on creators and producers – they are more meaningfully understood in terms of markets. Given that cultural products, including media and software, are largely consumed on the basis of taste and recommendation, Potts et al. argue that the Cls are, in fact, constituted by the operation of social network markets in which 'consumption is essentially

constituted by complex social networks' since the CIs 'rely, to a greater extent than other socio-economic activity, on word of mouth, taste' (Potts et al. 2008, 169). In this context the success or failure of cultural products, including apps, regardless of how well they are made, is dependent on the successful harnessing and perpetuating of attention.

Social network markets are not limited to online interaction; however, these are a substantial element of social networking today, with the reach and impact of platforms such as Facebook, Twitter and the recommendation and commentary sections of the app stores themselves all powerful spaces for the flow of recommendations. Banks (2012), writing specifically about mobile games, argues that social network markets are core to the way that apps are found, enjoyed and valued:

The social network market dynamics characterizing how an apprises to a prominent position on Apple's store sales chart suggests a new search strategy that cannot be quite encompassed by standard marketing classifications of demographic categories and associated social classifications of taste. The network, the social relations, is the source of value, perhaps even more so than the products. (2012, 165)

It follows from this argument, then, that in the context of apps, success within a social network market, especially given the crowded app arena, relies on gaining and maintaining the attention, interest and affection of current and potential players. As argued below, Rovio have established themselves as both successful game designers and, crucially, experts at building and maintaining interest in their games, and their broader franchise, within the social network marketplace.

Spreadability

While the widespread circulation of content on social media is often referred to as going viral, in *Spreadable Media*, Jenkins, Ford and Green (2013) refute this metaphor of contagion, arguing instead that encouraging the sharing of media is facilitated by respecting the agency of individuals and giving them good reasons to share. The most important element is offering people the chance to meaningfully participate in both the framing and shaping of media. In terms of mobile games, the level of playability is already there, but play is not just limited to the game itself. Rather, this also entails playing with the characters, stories and mechanics of the games themselves. Viewing *Angry Birds* as a franchise first and foremost, Bergstrom (2014, 332) concurs,

arguing that 'Tapping into memes, trends, news topics and current pop culture phenomena – all the other things relevant to the community in addition to the game – is what makes a brand relevant in the eyes of the audience.' Rovio's strategy with *Angry Birds* has been to engage with the community on a number of levels, including engagement on various social networking sites (SNSs) as well as building and encouraging a range of ways that fans of the game, and the brand, can engage and participate.

While Angry Birds began as a stand-alone solo-player game, the simple act of having high scores and a stars rating system was sufficient for players to talk about their successes on social media, and to challenge their friends to beat their scores. Rovio's official Twitter and Facebook accounts quickly picked up on this phenomenon and began posting daily high scores and challenges for specific levels, encouraging social interaction beyond the confines of the game. At the same time the company developed Angry Birds Friends which was initially released exclusively as a Facebook game and later released as a mobile app. Angry Birds Friends allows players to compete both globally and, most importantly, against their own Facebook friends, vying for the highest scores, encouraging competitive play and, crucially, harnessing the social networks players already have on Facebook.

Rovio's use of social media is far from limited to discussing and encouraging competitive game play. As of May 2015, the official Anary Birds Twitter account has over 636,000 followers while the Angry Birds Facebook page has over 25 million likes. Beyond the obvious promotion of new Angry Birds games, levels and so forth, Rovio's use of social media very purposefully showcases and encourages fan engagement and participation. The Facebook page, for example, is filled with galleries of fan creativity including Angry Birds fan art, sculptures, craft, cakes and so forth. Indeed, a YouTube video shared on Rovio's social media presences of the creation and enjoyment of a playable Angry Birds cake (Cooper 2011), complete with catapult and collapsing cake structures, was so popular that it alone attracted more 13 million views and more than 10,000 comments. Similarly, when one dedicated fan wrote to Rovio asking for their help with a wedding proposal, the company created a bespoke level within the game with the text 'Marry Me Mel' prominently displayed; a YouTube video of the Angry Birds-powered proposal was a hit on social media, gaining media attention and being widely viewed (Stark 2013). On the microblogging platform Tumblr, too, remixed images of Angry Birds characters appear as The Avengers or The Terminator or Shakespeare (an Angry Bard) or even as the Angry Bird's in-game nemeses, the Bad Piggies, reworked as Che Guevara, and hundreds of other variants.

The openness and adaptability of the *Angry Birds* characters and the seeming endorsement of Rovio in periodically highlighting some of these remixes and mash-ups serves to encourage further affection for and attention to *Angry Birds*.

Following Jenkins, Ford and Green (2013), opening, encouraging and amplifying these examples of fan interaction and creativity is a core factor in making *Angry Birds* players and fans feel valued and encouraging them to further play with and endorse *Angry Birds*, building Rovio's success within a social network market.

The recognition and affection for the iconic *Angry Birds* and *Bad Piggies* have been leveraged by Rovio to diversify the *Angry Birds* games to include twelve different official *Angry Birds* apps. Beyond the games, the impact of *Angry Birds* as a brand has been significant, leading to a wide range of licensed merchandising and branded products. Everything from official *Angry Birds* plush toys, hoodies and pyjamas through to *Angry Birds*-branded Easter eggs, children's vitamins and playing cards have both drawn upon and expanded the spread of *Angry Birds*. Indeed, by 2011 merchandising already accounted for 30 per cent of Rovio's income, with that percentage rising to 50 in the following years (Tung 2012). Notably, Rovio are far from alone in relying on a compelling but open game narrative to leverage player affection for merchandise and related products. Halfbrick, the Australian company behind *Fruit Ninja*, have similarly made significant amounts selling and licensing plush toys, T-shirts, posters, mugs and a range of other paraphernalia showcasing the iconic Fruit Ninja images and characters (Cunningham 2012).

One way in which Rovio shows more foresight than many of their competitors, at least in terms of competing in a social network market, is in their approach to intellectual property. Montgomery and Potts (2008) have argued that taking a weaker approach to intellectual property in China, allowing knock-offs and not attempting to strictly enforce trademarks, can cement the role of a game in social network market terms, repositioning official merchandise and paid versions of the app as desirable, elite goods, compared to the knock-offs. Peter Vesterbacka, Rovio's chief marketing officer, also affectionately dubbed their 'Mighty Eagle', has commented 'that China was already happening in a big way for us . . . When you see all these knockoffs, you know that there is a lot of demand' (Reuters 2012). Rather than litigate, Rovio let these unlicensed products build awareness and demand for the game and the brand, strategically increasing the spread of the game. Notably, in early 2015 Rovio announced that Anary Birds games had been downloaded in China more than half a billion times. While no figures were released regarding the amount of these downloads that were paid, it was highly significant that the release of these figures was paired with the news that Rovio were planning to open nine Angry Birds theme parks across China (Elise 2015). When even the most expensive iPad version of the Angry Birds games costs around \$3, the fact that a relatively cheap theme park ticket would easily cost ten times that amount demonstrate Rovio clearly diversifying their monetization strategy to the extent that their major returns from Angry Birds may not be from the games themselves at all, but rather from the wide range of licensed goods, games and experiences.

Paratexts

Lee (2014) emphasizes the fact that as many casual mobile games are typically played in 5–10 minute bursts, the more complex narratives of larger games necessarily give way to simpler, quickly comprehensible stories for mobile games. Given the huge range of game apps, the challenge then is not just to make a simpler narrative, but to craft one which is just as compelling as console game, yet introduces this game story or world far more swiftly. While ostensibly quite simple – the Bad Piggies have stolen the Birds' eggs and they are angry and out for revenge – this immediately relatable good versus evil tale is immediately clear, told not only by the initial comic-book-like cut scenes, but emphasized in all the game elements from audio design to the construction of each bird and piggie character.

While the narrative design of casual mobile games can be compared unfavourably with more immersive console and PC-based games, Keogh (2014) argues instead that games such as Angry Birds are best understood as demanding co-attentiveness, a situation where the game narrative and mechanics are purposefully situated in tandem with the material world, and where the action of pulling back the slingshot to propel the bird across the screen deliberately highlights the physicality of the play. Thus, casual mobile games demand attention both to the game, and the everyday material context in which the game is being played. Hjorth and Richardson (2009) similarly emphasize that mobile devices travel with players, often providing a sense of safety and familiarity in different physical spaces, providing what they describe as a 'home-in-the-hand' (see also Willson 2015). Given this co-attentiveness and shifting everyday contexts, I contend that it is also the case that the narratives of the game and broader material setting may playfully merge at times; playing Anary Birds while in a waiting room before a medical appointment might provoke thoughts of defeating doctors or an illness rather than the pigs, or playing on a bus before an exam might lead a student to imagine they are knocking down the examination hall. The simplicity, relatability and shifting contexts of play make the game narrative particular open for players to imaginatively inhabit.

In Gray's (2010) work examining linear film and television narratives, he examines the paratexts, the element such as toys and trailers and posters and tie-in comic books, which dialogue with the core film or television text. Rather than being superfluous, he argues that 'paratexts are not simply addons, spinoffs, and also-rans: they create texts, they manage them, and they fill them with many of the meanings that we associate with them... a paratext constructs, lives in, and can affect the running of the text' (Gray 2010, 6). To some extent, then, the wide range of *Angry Birds* merchandising, especially elements such as the toys and tie-in books, operate as paratexts, encouraging

the type of imaginative engagement that builds on the game narrative. Gray also notes the paratextual importance of play; for many children who grew up with Star Wars, for example, the toys acted as paratexts which allowed the narrative to be extended and perpetuated in the long break between films. As the narrative structure of Anary Birds is comparatively simple, one of its great strengths is that the narrative is easily adapted, remixed or inhabited by others. Unlike the division between core text (the film) and paratexts (trailers, toys and so on), the narrative of a casual mobile game is equally open to imaginative engagement. Internet memes, remix cartoons, political satires on YouTube or even children battling with Angry Birds toys in the playground are all utilizing and building their own stories on the Angry Birds foundation. Without an overly complex core story to compete with, these narratives can expand and be explored playfully, increasing affective attachment to the Angry Birds franchise. Without seeking to engage with the game studies debate as to whether interaction or narrative is the core element of a game, I nevertheless contend that the elegant simplicity of the Angry Birds narrative is deliberately open, inviting players to reimagine and repurpose it, to play in the game, and play with the story, in a manner resonant with Gray's notion of paratextual play.

Exemplifying the paratextual potential of *Angry Birds*, in 2011 Russian designer Egor Zhgun created an animated parody of *Angry Birds* commenting on the Arab Spring uprisings called *Three Big Pigs* (Zhgun 2011). Zhgun harnessed the good versus evil plot of the games, and distinctive character design, recasting political dictators in the role of the bad piggies. The multiple scenes in the animation each commented on a different Middle Eastern country that experienced political upheaval and change during the Arab Spring. Zhgun's animation struck a chord with audiences, and the YouTube version of the animation was viewed more than 2.5 million times. Emphasizing the global circulation of *Angry Birds* as paratexts, Zuckerman (2011) commented that: 'There's something very 2011 about a Russian video using a soundtrack from American cartoons and characters from a Finnish mobile phone game (based on an English fairytale) to satirize North African politics.'

User co-creativity

In the past decade, the involvement of users and players in the development of games has increased, from the initial development of user-generated content about and within game to scenarios where game companies court the involvement and opinion of the most dedicated fans (Banks 2013). Increasingly, co-creative involvement is seen as integral to social network markets, ensuring that the social word of mouth precedes the release of a game, priming potential

players (Banks and Humphreys 2008; Banks and Potts 2010). While user co-creation can be incredibly valuable, so too can it be incredibly destructive. Deep user co-creation in the design of a game following a social network market approach can increase engagement, attention and distribution, but if co-creative users feel that their opinions, critiques and recommendations are not taken seriously, their word of mouth can prove fatal to a game (Banks and Potts 2010). To date, Rovio have not embarked on a co-creative strategy in the same fashion; however, their deep engagement with fans on social media has led to somewhat different but still important form of co-creativity.

As mentioned above, different remixes and mash-ups of the Angry Birds characters with a range of popular culture franchises have circulated on the popular microblogging platform Tumblr. In 2011, one of the most popular remixes, combining the Angry Birds and Star Wars characters, called Angry Rebels, was widely shared both on Tumblr and a range of other social media sites ('Angry Birds And Star Wars' 2011). Rovio, being highly active on social media platforms, were no doubt aware of the popularity of this and other remixes and took note. So much so, that a year after the Angry Rebels remixes first became popular, Rovio released their official Angry Birds Star Wars app. I should note, I am not suggesting something underhand here, but rather highlighting the attentiveness with which Rovio listen to the social network signals, noting the popularity of the Star Wars-themed remixes, and strategically building on this interest by collaborating with LucasFilm to produce the first of two official Angry Birds Star Wars games. Whether framed as market research or deep listening on social media, the attentiveness to the fans of Angry Birds, I argue, is itself a fruitful form of user co-creation, where the strongest signals from fans encourage the development priorities and direction that Rovio take the Angry Birds suite of games.

The signals and interest from users and fans not only direct the development of Rovio's games, but also the ways in which they are framed. As Tumblr had been one of the main platforms on which the *Angry Rebels* images were popular, it made sense that Rovio use that platform to launch *Angry Birds Star Wars*. As Bergstrom (2014, 331) notes:

In 2012, Tumblr was gaining traction among young adults at the same time as the 'Angry Birds Star Wars' marketing campaign was kicking off. Based on research into how consumers use Tumblr, a strategy was set to concentrate on the biggest trend on Tumblr at the time: GIF animations. Thus, 'Angry Birds Star Wars' was announced to fans through a GIF animation followed by press outreach – the strategy being to talk directly to consumers on a platform which already had attracted the right target audience, and through a piece of content that tapped into an ongoing trend.

Moreover, for the first time the official *Angry Birds Star Wars* web presence did two key things: it asked visitors to choose whether they were on the side of the Rebels (the birds) or the Empire (the piggies), implicitly situating players within the narrative of the game before it had even launched; and the site explicitly solicited and prominently showcased *Angry Birds Star Wars* fan art. Thus, by listening closely to user signals and activity, launching *Angry Birds Star Wars* where fans had already shown a strong interest in the development of the game, and designing their Tumblr presence to encourage fans to interact with the narrative world in a range of ways, Rovio both situated fans as co-creators on some level, and in doing so enhanced the circulation of their new game within the dynamics of a social network market.

Rovio's approach of taking engagement with their users via social media very seriously, by enhancing community dynamics implicitly endorsing a wide range of fan engagement and remix activities, may be a less formally integrated model of co-creative activity but it is also a less risky one. If, for example, fans were contributing designs for new levels, or a level-designing tool was formally integrated in an *Angry Birds* game, then Rovio may find themselves competing with their users in the development of new level releases, leading to complicated questions around exploitative online labour relations and intellectual property rights. Instead, listening to users and fans in their own spaces, taking those signals seriously, and meeting fans in those spaces as new games are released demonstrates at least a limited sense of user co-creativity which is entirely compatible with strategically amplifying new *Angry Birds* games across existing and emerging online social networks.

Conclusion: Apps as platforms and social network markets

Following Tarleton Gillespie's (2010) warning that the term 'platform' deliberately and politically occludes as much as it reveals about a software system, it is similarly the case that the term 'app' ostensibly evokes a single piece of software running on a mobile device, be that a game or something else, and yet like platforms, apps are far from straight forward. Indeed, the frequent updating of apps means that they are never finished products, but rather software systems in a state of continual change. For Rovio, these constant updates have been a boon; as each new *Angry Birds* game introduces new features, new integration with social network platforms, new optional powers available via in-app purchases, or other new elements, these can be retrospectively added to the existing apps. New options first rolled

out in *Angry Birds Star Wars* can soon be added into the original *Angry Birds* app in the next regular update. The design of the app stores largely occludes the actual content of updates until they are downloaded, allowing Rovio great freedom in reworking and expanding each and every game they offer.

In May 2013 Rovio launched the Rovio Stars (Rovio 2013) program which sees Rovio effectively act as an editor and publisher of games developed by others. Rovio's strongest selling point is their existing penetration into the social network market that is the app marketplace. Promoting the Rovio Stars games within the very popular and frequently played *Angry Birds* suite of games gives participants in this program prominent access to millions of casual mobile game players in a manner not easily achieved otherwise. Rovio have also launched their own cartoon series featuring more developed versions of the *Angry Birds* characters. These cartoons are both licensed to other content providers, hosted on outside platforms such as YouTube, and most significantly are available in media channels embedded within the *Angry Birds* apps. Indeed the popularity of these channels has led to Rovio hosting film trailers and other third-party content that can be viewed within *the Angry Birds* apps.

By the end of 2014, *Angry Birds* had been downloaded 2.5 billion times, and there are twelve different *Angry Birds* games on offer, from the original app through to *Angry Birds Stella* specifically aimed at female players, and licensed versions such as *Angry Birds Star Wars* and *Angry Birds Transformers* (Rovio 2014). Constant updates ensure that the popular features rolled out in any one of these games are integrated where feasible into all the other *Angry Birds* games. The success of the *Angry Birds* brand has allowed Rovio to expand their apps in a way that situates them both as a games publisher and as a video content producer. Rovio's skilful attention to and use of online social networks has continued to bolster the *Angry Birds* brand. Arguably, this success has limited Rovio in certain ways as Rovio's attempts to popularize their own non-*Angry Birds*-branded games have met with very limited success. For better or worse, Rovio and *Angry Birds* are, for most players and fans, synonymous.

Angry Birds rose to prominence when there was considerably less competition in the app stores, yet Rovio has strategically built their position showing a sharp awareness of social network dynamics, doing all they can to encourage the spreadability of their games and fan-created material. Rovio have taken an approach to copyright that encourages brand awareness and long-term gain, have developed game narratives that encourage the stories to be paratextually inhabited, and have also deployed a limited form of user co-creation premised on deep listening to fan activity on social networks. The nature of apps as frequently updated, the development of Rovio as a

publisher for other games, as well as the integration of video channels and other content services within the *Angry Birds* apps, demonstrates that Rovio is not just successful at being aware of social network market dynamics, but also in harnessing those dynamics *within* their suite of mobile casual games.

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16

From premium to freemium: The political economy of the app

David Nieborg

or decades, the game industry has been dominated, if only in terms of revenue and mindshare, by a tandem of globally operating game publishers and game console platform holders. Historically, these two small groups of industrial actors, primarily located in North America and Japan, have been 'dominant forces' in the game industry (Consalvo 2007, 123). Similarly, Johns (2006) notes that power relationships in the game hardware and software production networks are uneven and are affected by temporal and spatial dimensions. Driven by the cyclical introduction of new hardware platforms, the platform/publisher duo served a relatively stable, highly lucrative niche market (Williams 2002; Kerr 2006). Every five to seven years, development and marketing budgets increase and, as a result, so do financial risks and the distribution of capital and power (Schilling 2003). Geographically, the main centers for console game development have been North America, Western Europe and the Asia Pacific (Johns 2006). That is to say, the majority of the billions of dollars of value generated by the sale of video game hardware and software has been captured by a small number of globally operating firms who have a high rate of incumbency. The relationship between game

publishers (e.g. EA, Activision Blizzard and Ubisoft) and a triopoly of platform holders (i.e. Sony, Microsoft and Nintendo) is best described as symbiotic and is regarded as a canonical example of a 'two-sided' or 'platform market' (Rochet and Tirole 2003; Evans, Hagiu and Schmalensee 2006).

More recently, the resurgence in PC gaming together with the mass diffusion of smartphones and tablets signaled a diversification in gaming audiences, hardware platforms, development practices and publishing strategies (Mäyrä, 2008). Rayna and Striukova (2014) describe the 'traditional' business model for physically distributed games as a 'few-to-few' business paradigm, with a small number of industrial actors catering to a distinctive audience. Conversely, the emerging business paradigm associated with mobile devices is better understood as a 'many-to-many' model. Instead of catering to 'a base of young male hardcore fans' who are attracted to 'strongly gender coded scenarios of war, conquest, and combat' (Kline, Dyer-Witheford and De Peuter 2003, 247), game companies targeting mobile platforms are able to reach a wider and much more diverse audience in terms of age, gender and location. Mobile phone usage is at an all-time high and apps have rapidly become a relevant economic and cultural form (Goggin 2011). Exploratory research by Okazaki, Skapa and Grande (2008, 832) suggests that 'perceived convenience' (i.e. the ability to play anywhere, anytime) afforded by mobile devices, has been an important determinant of mobile gaming adoption. Similarly, Crawford notes that: 'advances in mobile and media technologies have helped make playing video games a much more simple and everyday activity' (2012, 152). The diffusion of accessible hardware coincides with the popularization of casual games (Juul 2010). For example, game studio King serves over 340 million players across emerging platforms with popular puzzle games such as Candy Crush Saga and Farm Heroes Saga (King Digital Entertainment 2014).

The viability of the emerging collective of proprietary platforms operated by Google, Amazon, Facebook and Google resulted in a disruption of the business models traditionally associated with media companies (Van Dijck 2013; Fuchs 2014). The rapid ascendance of new market entrants in the game industry such as King mark a fundamental shift in institutional power relations among platform holders and developers. Independent game studios, startups, artists, hobbyists and students have been able and quite eager to enter the new market for mobile games; a market that is much more accessible and potentially lucrative for newcomers. Compared to multi-million dollar blockbuster productions for dedicated game consoles financed by large incumbent game publishers (Nichols 2014), developing a mobile game is not only considerably cheaper, but also a much faster process. To take an app from idea to publishing can be a matter of months rather than years (Holzer and Ondrus 2011; Banks 2012). That is to say, emerging game platforms offer

game studios a much wider array of development and publishing choices, most notably the option to bypass incumbent game publishers via self-financed game productions.

Yet, despite the mobile market's appeal as a relatively accessible and growing market, the segment already exhibits signs of increasing industry consolidation and subsequently the concentration of capital and power. The mobile segment, I would argue, is accessible, but deceivingly so. The unprecedented revenue growth of King and surprise sleeper hits such as the by-now infamous Flappy Bird fuel the perception that emerging platforms offer a level playing field for all game developers. In this chapter I want to challenge the egalitarian notion of the app economy as a 'many-to-many' model. Rather, the lure of accessibility functions in a similar way as the American Dream. The app economy holds great riches indeed and appears to offer great wealth for those who are willing to work hard. With app development being considered a 'sunrise occupation', developers feel that a hit game is always within reach (Bergvall-Kåreborn and Howcroft 2013). That said, drawing on critical political economic theory, I would contend that the mobile segment should be considered as a 'few-to-many' model. A handful of superstars camouflage the inherent power asymmetries and the strong winner-take-all dynamic constituting the political economy of the information economy.

In order to gain a deeper insight into the many ways power and wealth are related, my argument is informed by the 'institutional' tradition of critical political economy (Mosco 2014). This macro-economic approach pays special attention to the relationship among industrial actors and the control over the means of production and circulation. Vital to this macro-economic approach and to studying the articulation of power in the cultural industries, is the process of spatialization. This process concerns questions of ownership and power, and is best understood as 'the institutional extension of corporate power in the communication industry' (Mosco 2009, 158). This approach studies the for-profit entities' tendency to cluster capital and pays special attention to the concentrated nature of industrial ownership. Critically engaging the business practices and business models of mobile game studios allows for a reflection on the implications of the changing power dynamic among industrial actors.

Keep calm and follow the money

Incumbent and newly entering actors who want to gain foothold in the mobile segment are constantly forced to reconsider all functions of their business models (Bergvall-Kåreborn and Howcroft 2013, 971–2). Chesbrough (2007) offers six functions that together make up the business model framework: the

value proposition, target market, value chain, revenue model, value network or ecosystem and a firm's competitive strategy. As my interest lies with intraindustry positioning of individual firms I will focus on three functions in particular, the value chain and network and the revenue model. The most visible of these changes would be the dramatic shift from the dominance of the premium (transaction-based) revenue model towards various incarnations of 'free'-revenue models, which will be discussed in the second half of this chapter.

Moreover, I will contend that emerging platforms have become key spaces in which established and new practices of cultural production and circulation are (re)negotiated and (re)organized (cf. Van Dijck 2013). While the means of app production are undeniably accessible to a wider group of individuals, one can question the ability of new entrants to attract sufficient users. As Kline, Dyer-Witheford and De Peuter observe: 'in many media industries, the high ground for strategic control of interactive game revenues lies not in production but in marketing and distribution' (2003, 178). Emerging platforms, such as Apple's iOS ecosystem, operate highly integrated online marketplaces that grant platform holders more, rather than less power over the means of circulation. For example, by prominently featuring an app in its App Store, Apple can 'bump an app' and generate significant downloads. In addition, Broekhuizen, Lampel and Rietveld (2013) note that for direct-to-consumer business models to be financially feasible, developers still need access to 'specialized complementary assets' such as a large content portfolio and marketing skills and assets.² Their exploratory research suggests that both incumbents and newcomers benefit from the ability to hold on to or acquire these assets, which are best qualified as capital-intensive, but also 'inimitable, scarce and difficult to reproduce' (ibid., 955). Since access to the means of circulation (i.e. marketing and distribution) is highly controlled I would argue that it has become the locus of control in the app economy.

To offer a contextual baseline and a comparative framework to critically discuss continuities and changes in the institutional configurations, the current shifts in the mobile segment will be compared against the traditional market segment of Triple-A video games. To limit the scope of this chapter, the main focus will be on video games published in North America and Western Europe for networked game consoles (Xbox 360 and PlayStation 3) and mobile games published for Apple's mobile (i.e. iOS) devices. By offering a comparative and material perspective, the aim of this chapter is to offer a critical and historical dimension to current debates on the economics of mobile gaming.

The subsequent analysis of the Triple-A game segment is informed by over two dozen of semi-structured interviews conducted between 2006 and 2010 with a wide range of industry informants in Western Europe and North America (Nieborg 2011). In addition, the analysis of the mobile segment

draws on conversations with forty-five interviewees who are active as game critics, business analysts, developers of independent game studios, PR representatives, game designers, academics and informants working for state-sponsored business accelerators and regional development agencies in Israel, Germany, the Netherlands, the United Kingdom, Sweden, Finland and the United States. These semi-structured interviews were conducted between late 2012 and early 2015. Before examining the emerging business models in the mobile segment, I will first discuss those functions of the Triple-A business model related to its revenue mechanism, the configuration of the value chain and the institutional arrangement of the segment's ecosystem.

The console segment

Decades of unimpeded growth in terms of users, revenue and for some profit, demonstrate that game developers and publishers have been quite capable of creating and capturing value in the face of constant change. Acknowledging the many years of steady revenue growth, mainstream press accounts chronicling the rise of the game industry are almost without exception focused on hit games and the game studios that 'made it'. Today's game industry, however, is far from a capitalist wonderland that is populated by winners only and where hard work is always rewarded (Kerr 2006). On the contrary, scholars have signalled pervasive issues related to the labour precarity of industry professionals (Deuze, Martin and Allen 2007; Dyer-Witheford and De Peuter 2009) and the secretive nature of game development, which results in the perpetuation of a number of 'toxic' myths about the industry (O'Donnell 2014, 149).

The environment of Triple-A video game publishing is particularly volatile and associated with considerable financial risks (Nieborg 2011). Apart from generic macro-economic challenges, the Triple-A industry segment: 'is faced with highly insecure market success, long product development times and costs as well as perishable products' (Teipen 2008, 311). While the marginal cost of reproducing games, being information goods, is low, one of the notable properties of video game development is high up-front investments (Hesmondhalgh 2007). These investments have grown dramatically over the last decade. Consider the hundreds of millions invested in titles such as *Grand Theft Auto V* (2013) and a reported US\$500 million for the *Destiny* (2014) franchise (Grover and Nayak 2014).

Since the first generation of console game platforms, the revenue model operated by game publishers has been relatively stable and singular, and revolved around the one-time sale of physical commodities (i.e. discs).

Revenue sources in the television industries, for example, are more diverse and are typically generated through the commodification of audiences (i.e. advertising) and the licensing of television content and the sale of reruns (Kompare 2005). Conversely, Triple-A games tend to be impact-upon-release products with a rather truncated life cycle. Even though game publishers increasingly experiment with digitally distributed commodity forms, for example the sale of downloadable content (Nieborg 2014), a publisher's income is still primarily derived from the one-time sale of heavily marketed, premium priced games.

Surveying the Triple-A value chain it becomes immediately clear that the tandem of game publishers and game hardware platform owners are best positioned to capture the majority of value. Both are co-dependent on a financial as well as a technological level and hold two crucial positions of power. Readman and Grantham label game publishers as 'chain governors' because of their coordinating role, as they 'provide the majority of funding for games development which enables them to set the parameters to which all other stakeholders have to perform' (2006, 263). The core task of a publisher is to act as a clearinghouse for intellectual property (IP), to initiate and finance game production, to oversee physical distribution and manage PR and marketing campaigns (O'Donnell 2014).

The console game value chain started as a highly integrated system, followed by a phase of disintegration, in order to move towards the current phase of both chain integration and disintermediation (Gallagher and Park 2002; Schilling 2003). Two examples of disintermediation of the Triple-A value chain are game publisher's outsourcing development tasks and software development (i.e. middleware or engines, cf. Kerr and Cawley 2012) and marketing and PR activities to local partners (cf. Deuze, Martin and Allen 2007; Grantham and Kaplinsky 2005). While these instances of chain disintermediation might suggest less control over chain linkages by a game publisher, in practice it offers a publisher financial flexibility and an opportunity to offset financial risks. As such publishers can leverage their high-capital position, thereby gaining more control over the entire chain. Chain integration, on the other hand, is taking place because publishers are poised to leverage their 'complementary assets' (Broekhuizen, Lampel and Rietveld 2013).

Platform holders, for their part, consist of a triopoly of incumbents who, arguably, are the most vertically integrated companies within the game industry (Kline, Dyer-Witheford and De Peuter 2003). Nintendo, Microsoft and Sony exert total control over their platforms by deciding which companies are able to obtain essential software development kits ('dev kits') and licensing rights and control the circulation of content through an elaborate set of physical and legal protection schemes.

In sum, the Triple-A value network exhibits highly concentrated instances of institutional power (Johns 2006). The majority of game publishers and platform holders are publicly traded companies that are well-positioned to profit from economies of scale and take advantage of their access to high capital. This particular modality of cultural production, combined with the closed-off, proprietary nature of console hardware, translates into high barriers to market entry. Add to that the increasing financial risks that accompany blockbuster production, which has lead to numerous mergers and acquisitions and the bankruptcy of a number of once dominant game publishers, such as THQ and Midway Games.

Let us leave the few-to-few model behind and focus on emerging game platforms. Next I will argue that, compared to the Triple-A segment, the mobile segment exhibits a high degree of diversity in terms of revenue models and the origin and size of industrial actors inhabiting the ecosystem. Consequently, the segment not only marks a significant repositioning of industrial actors, it is indicative of a service-based mode of cultural production and circulation (cf. Rifkin 2000).

The app economy

Contrary to dedicated game consoles, the smartphone's promise of connectedness and integration with physical and online social networks made mobile technology a vital part of everyday life (Quinn and Oldmeadow 2013). The 2007 introduction of the iPhone and the subsequent launch of the iPad in 2010 reinvigorated the mobile phone's viability as a mass market gaming platform and created the novel product category of tablet-based games (Goggin 2009; West and Mace 2010). One can make a purely financial argument of the viability of the mobile market considering recent revenue growth. The mobile (both smartphone and tablet) segment's 2013 revenue topped US\$17.6 billion, much more than handheld console games (US\$4.4b) or the US\$7.4 billion generated by web-based casual games (Newzoo 2014).

The rapid diffusion of networked mobile game platforms and the promise of revenue growth galvanized efforts by game developers to enter the market for mobile games and to subsequently experiment with new business models. In the era of feature phones mobile game development was complex and cumbersome, as dominant business models in the mobile segment were 'telco-centric'; that is telecommunications operators pursued a semi-walled garden or one-sided market strategy (Ballon 2009). Taking over the gatekeeper role from telecom operators, Apple employs a 'device-centric' business model in which the smartphone's programmability translates into radically lower production costs for applications compared to both feature phone and console

game development (ibid.). That is to say, unlike console game development, iOS developers do not need expensive proprietary software development kits to initiate game development (cf. Evans, Hagiu and Schmalensee 2006). While the widespread use of open source development tools for games is uncommon, there are many affordable options available for mobile game studios, chief among which is Unity's integrated development environment and engine, which has seen widespread adoption (cf. O'Donnell 2014).³

The original strategy for the iPhone was to first and foremost offer an optimal device to experience the Web on a high-end device (West and Mace 2010). Soon, however, Apple opted for a platform or 'two-sided market' strategy and introduced the proprietary App Store in order to allow consumers to download third-party software (Cuadrado and Dueñas 2012). In the last quarter of 2013, games were increasingly dominant as they represented 80 per cent of the total revenue in mobile application stores (Newzoo 2014). With Apple at the helm, mobile platforms have changed the ways in which mobile games as cultural commodities are developed and circulated (Goggin 2009).

Moreover, game development for emerging platforms has become a viable option for incumbents and new market entrants of all stripes, ranging from hobbyists, students, artists and well-funded start-ups, to bootstrapping independent studios, incumbent video game publishers and mobile veterans from the era of feature phones, among others. Initial research has shown that a 'diverse group (in terms of geographical dispersion and position in the industry)' is engaged in app development, 'including seasoned developers who switched from working on PCs to smartphones, as well as a fourteen-year-old teenager who creates Apps out of interest' (Mosemghvdlishvili and Jansz 2013, 16). The ease of development is demonstrated by the availability of apps. Mid-2014, the number of all apps in the US App Store topped the 1.1 million mark, with US\$13 billion being paid to developers, the majority of which are, again, game developers.⁴

While mobile game development tools are relatively affordable, getting a game published in the App Store is subject to a wide range of stringent rules and ever-changing regulations, as Apple exerts a high degree of control over its platform (Goggin 2011; Cuadrado and Dueñas 2012). And in the case of Apple, game developers are tethered to Apple's uniform hardware strategy and its fully integrated, centralized portal (i.e. the App Store) on both an economic and technological level (Holzer and Ondrus 2011). First, Mac hardware is needed to be able to operate the iOS Software Development Kit (SDK) and upload apps. Secondly, similar to other application stores operated by Google, Microsoft and Facebook, Apple subtracts a somewhat arbitrary 30 per cent of all app revenues. Third, before an app is published Apple reviews it and developers need to follow strict review guidelines covering criteria such as 'technological information, privacy, religion, gender, trademarks, and more'

(Bergvall-Kåreborn and Howcroft 2011, 567). The review process has an air of inconsistency and is notoriously opaque, little is known about 'the apps that Apple refuses' (Goggin 2011, 154). That said, the time-to-market for greenlighted apps is much quicker (i.e. days rather than weeks), compared to the months that it takes physically distributed Triple-A games.

Simply put, the role of Apple in the value network is all encompassing and pervasive. Only in aggregate would unionized app developers be able to wield any form of collective bargaining power (Bergvall-Kåreborn and Howcroft 2013). Yet, the diverse and globally dispersed nature of app development seems to hamper any form of organized dissent. It should be noted that platform governance differs among platform holders. For example, Google's rules for the Android platform appear less stringent than Apple's. Then again, from a consumer perspective, the control Apple exerts over its platform is 'radically greater' than in the 'analog world' (Lessig 2008, 97–9; cf. Zittrain 2008). Compared to discs, app usage and ownership is rather restricted, as the latter can be disabled from a distance, are tied to one user account and cannot be lent to a friend, nor can they be sold on the second-hand market. Triple-A game publishers are known to prevent the sale of second-hand games as well, but employ more passive strategies such as codes for free downloadable content for first-time owners.

Free-to-play (F2P)

While all functions of the mobile business model are under constant (re) construction, it is the revenue model associated with app stores attracting a considerable amount of popular attention (Anderson 2009; Lovell 2013; Luton 2013). Opposed to the Triple-A segment's singular revenue model, which allows for little price elasticity, mobile platforms offer developers and publishers a much wider set of revenue streams. The App Store allows for (1) 'premium'-priced apps where users pay per individual download, (2) 'freemium' apps where the basic version is free and the full version is unlocked for an additional fee, (3) advertising supported games, (4) a subscription model, and (5) games that offer in-app purchases (IAPs), such as additional play-time or virtual items (Feijoo et al. 2012). Many developers opt for a mixture of models, although the subscription model is rarely used for mobile games.

The gravitation towards the 'free' business model has been remarkably swift. Early 2008, the premium revenue model was considered the default option and the prices for apps varied widely. Today, developers predominately opt for the F2P business model (i.e. IAPs, advertising or a mixture of both). Crucial to the F2P model is that only a small fraction of players are willing to pay for in-game

material or services (Seufert 2014).⁵ As a result, production and circulation strategies increasingly revolve around player aggregation and data-driven design strategies for player retention and monetization (El-Nasr et al. 2013). First, the marketing of apps is fully integrated in proprietary platforms. Instead of billboard, TV-spots, web-based or search engine ads, game developers employ complex and capital-intensive 'user acquisition' strategies that serve advertisement in competing apps, often games, to demographically targeted individuals.6 Second, based on player feedback and aggregated player behaviour, mobile games that gain traction among users receive frequent upgrades ranging from tweaks to the core gameplay, to additional content (e.g. levels), to changes to the 'monetization model' (e.g. the price of in-game consumables). Taken together, compared to Triple-A game development, mobile game development and circulation are much more intertwined and form a constant feedback-loop rather than the more linear production-circulation process. F2P studios with successful titles typically employ so-called live-teams resulting in significant post-release (re)development investments.

Sketching out an archetypical mobile game value chain and app store value network is increasingly difficult. Not only are revenue models in full flux, the mobile ecosystem is flooded with start-ups that offer a wide range of specialized complementary assets, such as game middleware, hosting services, app analytics and app advertisement. Because of the immense population of app developers, providers of such complementary assets offer competitive pricing because of economies of scale, allowing smaller studios access to high-end capabilities.7 Arguably because of the access to such assets by a wider range of actors, the game publisher's historical role of 'chain governor' is less ubiquitous in the mobile ecosystem. It is an important, but as of yet open question whether publishers are better positioned to leverage their complementary assets compared to new entrants such as small independent studios (cf. Broekhuizen, Lampel and Rietveld 2013). EA's mobile strategy for instance, publishing mobile spin-off titles in the FIFA, SimCity and The Simpsons franchises, demonstrates how the veteran publisher is able to leverage its IP and portfolio. On the other hand, the new wave of billion-dollar powerhouses such as Supercell (established in 2010) support the hypothesis that new entrants are leveraging their access to specialized complementary assets or develop in-house capabilities to nullify such needs. The ascendance of King Digital Entertainment is equally revealing, showing unprecedented revenue growth, strong winner-takes-all effects, as well as the growing reliance on game marketing (i.e. user acquisition). For example, while King touts its ability to have their games grown 'organically' by implementing sharing mechanics leveraging the connectivity of both mobile platforms and Facebook, US\$376 million was spend on sales and marketing in 2013 alone (King Digital Entertainment 2014).

The current configuration of the mobile value chain, the dominance of the F2P business model and a sizeable target market means that developers have to adjust their competitive strategies accordingly. The operationalization of the app stores associated with emerging platforms advance a fundamental shift in the locus of control compared to traditional value network configurations in the game industry. In many segments of the cultural industries, such as the market for recorded music, the democratization of the means of cultural production put considerable pressure on incumbents (e.g. Bockstedt, Kauffman and Riggins 2006). In the mobile segment, however, the locus of control shifted to the platform holders. Or, as Bergvall-Kåreborn and Howcroft argue, the notion of self-control of developers is a façade 'restricted by marketing conditions and power asymmetries' (2013, 977). The F2P revenue model, which relies heavily on user aggregation and in-platform marketing, only exacerbates this issue and allows companies such as Apple to take an even more prominent position in the mobile game value network.

Conclusion

While the publisher/platform tandem dominating the Triple-A value chain and network has as of vet not manifested itself in the mobile segment, this exploratory study of the political economy of the mobile game segment shows that the power of platform holders and their position in the ecosystem is stronger than ever before. As Johns (2006) noted in the introduction of this chapter, power relationships in the console segment have been uneven and effected by temporal and spatial dimensions. The same can be said of the mobile segment. Even though the barrier to market entry remains low, capital and ownership in the mobile segment is increasingly clustered. Despite the occasional new entrants and surprise hits, the dominant industry trend seems to be one of concentration of ownership and capital. Similar to the Triple-A segment, only a very select number of actors is able to invest heavily both in game development and app marketing, thereby ensuring their market position. Apple's App Store can be considered as 'a lucrative platform for some software developers to launch fabulously successful products' (Goggin 2011, 153). Yet, the emphasis here should be on *some* developers. In Western Europe and North America, a very select number of both incumbents, such as Activision Blizzard and Electronic Arts, together with fast growing new entrants, derive exponential revenues and considerable profits from their iOS offerings. It is undeniable that the F2P revenue model is immensely lucrative for those developers who are able to aggregate significant amounts of players. Yet, network effects ensure that, similar to other platform markets,

revenues are generated by a very small number of actors. Market intelligence firm SuperData Research estimates that the top-100 of mobile games, that is 0.05 per cent, generates 40 per cent of all revenue (Llamas 2014).

While some developers, as a case study by Banks (2012) on the Australian mobile developer HalfBrick illustrates so well, are able to use the industry's constant state of uncertainty and change combined with the formidable constraints of platform holders to their advantage, it seems that it will be increasingly challenging to remain competitive in the high-risk, capitalintensive mobile ecosystem. As opposed to product-based revenue strategies the revenue derived from IAPs has virtually no limit. Those players who pay, spend considerably. This seems to exacerbate power asymmetries and leads to further concentration of capital and power. The advent of digital distribution, coupled with advanced recommender systems, may have opened up niche markets; it does not challenge the hegemony of the hit (Fleder and Hosanagar 2009). To the contrary, the publishing strategies of mobile moguls such as King and Supercell show a striking similarity to the blockbuster economics underlying other sectors in the wider cultural industries and epitomize the notion of a so-called winner-take-all market (Frank and Cook 1995). Paid-for user-acquisition strategies in particular play well into one of the strengths of well-capitalized companies such as publicly listed enterprises and wellfunded start-ups. While it is hard for a company such as King to raise the barrier to market entry in terms of game production, the company can leverage its capital basis and outspend nearly any other game company on user acquisition.

Important questions pertaining to the institutional configuration of the mobile segment remain. Significant changes in the structure of, for example Apple's App Store, are on the horizon and the iOS platform itself is constantly changing, as are consumer preferences and privacy and consumer laws. What will this mean for content diversity and will the position of 'traditional' role of game publishers (re)gain dominance? Considering the networked nature of mobile platforms and historical precedents in the cultural industries, it is highly likely that the trend of the concentration of industrial ownership will speed up, rather than slow down.

Notes

1 The revenue of King grew from US\$63 million in 2011 to US\$1.8 billion in 2013 (King Digital Entertainment 2014). *Flappy Bird* is a rapidly developed, relatively simple mobile game by a young Vietnamese developer that unexpectedly generated millions of downloads over the summer of 2013 (cf. Heilmann 2014).

- **2** Drawing on the work of Teece (1986; 2006), complementary assets, Broekhuizen et al. (2013, 954) explain: '(. . .) are those assets or capabilities that go beyond the mere technical knowledge of the innovation itself'.
- 3 Interviewees indicate that the success of Unity can be ascribed to its platform agnostic nature and its price tag. Unity has a free version and a full version priced at US\$1500. See: Unity Store. Available: https://store.unity3d.com/. Last visited: 5 June 2014.
- **4** See http://148apps.biz/app-store-metrics/. Last visited: 5 June 2014. And http://techcrunch.com/2014/06/02/itunes-app-store-now-has-1–2-million-apps-has-seen-75-billion-downloads-to-date/. Last visited: 5 June 2014.
- 5 While there are significant differences among games and players in terms of demographics and geography, the percentage of 'payers' ranges from 1 to 10 per cent.
- 6 The business practice of user acquisition is a form of game marketing that involves highly targeted in-app advertisements. Advertisers generally pay an amount per install (CPI or cost per install), which ranges from US\$0.50–7 in peak seasons and popular regions. Advertising consists mostly of 'interstitials' (full-screen advertisements) or a short video of game. When a user touches the ad, the App Store opens so users can download and install the advertised game.
- 7 Examples of complementary assets in the mobile domain would be development software (e.g. Unity) and additional services such Flurry and App Annie for analytics, or companies such as Chartboost and Facebook for ingame marketing and user targeting.

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PART FIVE

Cheating, gambling and addiction

17

Social casino apps and digital media practices: New paradigms of consumption

César Albarrán-Torres

With the Slots Journey application you'll experience the full scale of uplifted emotions just like a real casino player but at the same time, you won't risk losing a single cent!

- SLOTS JOURNEY, PROMOTIONAL SLOGAN

You are inside a movie theatre and the film has just begun. You feel a vibration in your pocket and a red light flashes on your smartphone. Something is happening. You may be missing out. Watching the latest Hollywood blockbuster, you feel three more vibrations coming from your mobile device. This makes you anxious: it could be an important work-related email, an SMS from a close friend, this weekend's sports scores (you placed a US\$30 bet on an AFL match using Sportsbet's app) or a major news story. It takes considerable willpower not to check your device.

After watching the film, you nervously fumble through your pocket and take out your smartphone. You read the list of notifications, produced by *Zynga Poker*, the app you to use to occasionally play poker with some of your Facebook friends. You do not wager with real money, but the excitement is nevertheless present; make-believe gambling also helps you 'kill time' and experience a sense of vertigo.

The successive messages read: '1M Daily Lotto! Win up to 1M in chips!', 'It's your Lucky Day!' and 'Claim \$5,000 free chips!'. You get home and before going to bed you grab your iPhone and play a couple of hands with a 'Poker Buddy' who lives halfway across the world.

This simple vignette (in the vein of McCarthy and Wright 2004) helps illustrate a fundamental shift in the potential place that gambling (*Sportsbet*) and gambling-like practices (*Zynga Poker*) have through the widespread use of social casino apps via mobile devices. These apps are accessed mainly through smartphones, but also tablets and hybrids, all of which could now be considered what Greenfield presciently termed 'everyware', objects with which we interact daily, as 'sites of processing and mediation' (2006, 1).

The continuous availability of digital gambling beyond desktop computers is made possible by the use of apps, which Goggin argues are a 'new cultural platform' that reveals how the 'intersection of mobile technologies and ubiquitous computing is already resulting in profound socio-cultural ramifications' (2011, 149). The consumption of gambling-like products through mobile devices and its associated digital media practices, which I will discuss in this chapter, are some of these 'socio-cultural ramifications'. Social casino apps are a gateway into understanding cultural meanings around risk, money and play, as well as the social relations enacted through mobile media.

Social casino apps simulate gambling and wagering activities such as poker (Fresh Deck Poker), slots (Slotomania, Slots Journey, DoubleDown), sports betting (Betting Billionaire; see Figure 17.2) and casual wagering among friends (BragBet, YouBetMe), but with no real money at stake, although some apps encourage the user to pay for bonuses, heightened gaming experiences and credits (Gainsbury et al. 2014), similar to casual games such as Candy Crush. In this chapter I offer a brief description and theorization of the consumption of social casino apps and the ways in which it related to digital media practices such as searching and sustaining a public presence (Couldry 2012). By simulating real wagering and establishing procedural connections to social networking sites (SNSs) and video games, social casino apps aid in the normalization of gambling-like procedures, bringing them closer to the realm of casual social gaming. This has wide implications for what we traditionally understand as gambling — a ritual demarcated from the everyday that necessarily involves chance and a payout.

I mobilize the argument that consumption in social casino apps is the acquisition of a gambling or gambling-like experience that may or may not involve the chance to win real money or tangible goods. In this transaction, the user pays with money and/or labour and/or time and/or access to his/her digital social networks and contacts. This economic and political dynamic has

ample political implications. As happens with other types of digital networked media, social casino apps 'capture their users in intensive and extensive networks of enjoyment, production, and surveillance' (Dean 2013, 4).

Albarrán-Torres and Goggin (2014) have termed the use of social casino apps as mobile social gambling, an evolving set of techno-social assemblages and a 'new form of media and cultural practice that fuses gambling (a longstanding social practice), social networking (in both the older pre-Internet and newer online forms) and "social gaming" (the new social media form, popular especially on Facebook), together with the affordances of mobile media devices, networks, applications, and touchscreens' (Albarrán-Torres and Goggin 2014). Mobile social gambling is part of the social gaming sector, which according to research firm ThinkEquity will reach US\$14.6 billion of annual revenue by 2015 (GamblingData 2012). Even though there are no stakes per se in social casino apps, they potentially aid in the expansion and promotion of gambling activities, which posses a set of theoretical and regulatory challenges.

Social casino apps bring gambling-like products closer to the realm of casual social games, which are widely played media all around the world. Social games are a distinct video game genre as they generally operate in social media settings and typically use virtual currencies (Schneider 2012, 711). Titles such as *Candy Crush* (King), *Angry Birds* (Rovio Entertainment), *Words With Friends* (Zynga), *Farmville* (Zynga), *Draw Something* (Omgpop) and *Mafia Wars* (Zynga) are already an integral part of the media consumption habits of millions of mobile media users (Hjorth 2011).

As they allow gaming to bleed into other spheres of life, mobile social games have also generated moral panics, with media reports referring to an intensive and potentially addictive use (see, e.g., Dockterman 2013). News stories such as 'This is what Candy Crush does to your brain' establish a direct relation between the intensive quality of their gameplay and the demanding nature of poker machines (Piotrowski 2013). Not surprisingly, the consumption of social casino apps has sparked similar preoccupations, because gambling is generally associated with compulsive consumption, particularly when mediated through ubiquitous screens (as is the case with Electronic Gaming Machines or slots; see Schüll 2012).

Influential video game theorist lan Bogost claims that as a new platform, gaming apps provide an experience that 'is designed to offer players a potentially toxic brew of guilty pleasure spiced with a kind of extortion' and that by doing so 'they profit by stoking addiction' (Bogost 2014). Bogost's appraisal of gaming apps echoes Schüll's (2012) work on land-based slot machines in Las Vegas in its recognition of a calculated effort to generate and sustain addictive consumption.

What is (was) gambling?

Social casino apps make us reconsider what we think of as 'gambling' as well as the practices entailed in its consumption. Gambling is often seen as the epitome of high-intensity and indulgent capitalist consumption (Bjerg 2009; 2011), as it implies a blatantly ludic and for some senseless circulation of money. However, 'consumption' is difficult to define when it comes to contemporary forms of mobile social gambling (what I call gamble—play media), an increasingly networked and social experience that escapes previous temporal and spatial constrictions (limited availability of gambling venues, the enclosed spaces of casinos and so on). The difficulty of encapsulating the notion of 'gambling' begins when trying to determine what exactly is being consumed through social casino apps, as the user cannot win money and often plays for free.

What the actual good or service in mobile social gambling is should escape the definitions and conceptualizations that have permeated academic and legal notions of gambling. Reith describes gambling as 'the commoditization of chance' (1999, 89) and as 'a ritual which is strictly demarcated from the everyday world around it and within which chance is deliberately courted as a mechanism which governs a redistribution of wealth among players as well as a commercial interest or "house" (1999, 1). Harvie Ferguson points out that gambling is 'simply the exchange of money itself; exchange liberated from the viscous medium of objects' and that in this process 'money gains the dignity of Being' (cited in Reith 1999, 89). Mobile media allows gambling-like activities to enter the flows of the everyday. Social casino apps restructure the redistribution of wealth in quite a different way. Here, 'wealth' might not involve money, but a player's time and social clout. Mobile social gambling challenges traditional definitions of gambling, as 'gain' is not always monetary and chance depends on an algorithmic entity knows as the random number generator (RNG). These contradictions have sprouted a set of strong reactions from lawmakers, particularly in Australia.

Moral panics: Gam(bl)ing apps

Social casino app manufacturers strive to redefine how and where the consumption of gambling products is carried out and the ways in which it permeates the everyday. They do so by offering platforms (mainly Android, iOS and Facebook apps) in which gamblers/players can participate, mingle and merge their gambling and gaming networks with other spheres, such as their Facebook (see Figure 17.1) and Twitter communities, all of which are easily accessible through mobile devices.



FIGURE 17.1 Screenshot of the social casino app Big Fish Casino. The player is constantly invited to connect via his/her Facebook account. Image captured on the author's Android device on 11 December 2013 at 5:22 a.m.

Social casino apps have appropriated the affordances of social networking, video games and social gaming, a trio of ample and expansive media assemblages. They do so by establishing what DeLanda calls 'relations of exteriority' with other forms of digital media. In relations of exteriority, 'a component part of an assemblage may be detached from it and plugged into a different assemblage in which its interactions are different' (2006, 10–11). Mobile social gambling products open up spaces for the insertion of 'component parts' of diverse techno-social assemblages. For example, the play-money version of *PokerStars* provides a platform in which gamblers can converse, sustain an identity and group around common interests or

characteristics such as gender or language. This echoes the affordances of SNSs (such as the possibility to create a profile and keep a record of your actions) and the morphology of what danah boyd calls 'networked publics', which are 'simultaneously (1) the space constructed through networked technologies and (2) the imagined collective that emerges as a result of the intersection of people, technology, and practice' (2011, 39).

The structural affordances of 'networked publics' allow social casino companies to encourage communication among gamblers. By doing this, they enhance the inherent social aspects of some gambling practices such as poker and add socializing elements to activities that are relatively individual, such as slot machine playing (see Livingstone 2005). For example, the app *SlotsCrown*, developed by Pixalim Studios and launched in 2013 for Apple's iOS7, 'features Facebook login to connect and play slots with friends via a fun leaderboard that shows your top friends and the current King of *SlotsCrown* in the throne. The Leaderboard uses player's Facebook profile photos to truly personalize the slots gameplay experience' (Pixalim Studios 2013). The Leaderboard, which reminds us of other mobile gaming platforms that incite competition among friends, such as Apple's Game Center, adds an element of competitiveness to an activity that is otherwise a somewhat isolating affair (playing slot machines).

It is important to theorize the consumption practices in digital gambling assemblages because this will allow us to understand the formation of new subjects that are quite different from the passive consumers generally conceptualized by gambling studies (vulnerable populations and problem gamblers prey to games where chance prevails over skill, such as roulette, slot machines, lottery, lotto or bingo, as opposed to poker, whist or backgammon). The theorization of social casino apps will identify new risks and inform academic discussion and policy-making, as new practices emerge and gambling technologies are designed to cater for digital media consumers, some of who have not experienced pre-digital betting.

Policies that try to limit the consumption of particular forms of low-stakes gambling and gaming, such as slot machines and now online platforms and apps, are shaped by the notion that these products are a sort of 'gateway drug' into addiction. The popularity of slot apps, for example, has prompted anti-gambling advocacy groups to speak out (Willingham 2013).

The South Australian government launched the Gambling Is No Game (nogame.com.au) campaign in December 2013. This campaign aimed at warning parents and educators about the risks involving simulated gambling. The official website states: 'An emerging area of serious concern is games that simulate gambling. Increasingly, these games can be played on social media sites, video games that link to the Internet and mobile applications. It's a growing business in a largely unregulated market' (Gambling is No Game

2013). This campaign also seeks to 'add MA15+ classification to games that contain simulated gambling', which would mean that 'it would be illegal to sell games with slot machine or card game mechanics to those under 15' (Byrne 2013). As part of the campaign, billboards were placed in public spaces. These billboards showed a young girl with a tablet device surrounded by gambling items and the slogan 'GAMBLING starts with GAMES'.

The Interactive Games & Entertainment Association (IGEA), which represents the interests of the video game industry, launched a formal complaint. IGEA claimed that the billboard misrepresented the relationship between video games and gambling, and that there is no definite evidence to support the notion that video games lead to problem gambling (IGEA 2013). In parallel, multiple memes were generated ridiculing the billboard (Serrels 2013). Online commentators were equally harsh, with Hopewell, for example, writing that 'if you are an adult gamer, it will probably see you spit out your corn flakes' as 'it demonises games and gamers alike, especially those who encourage their kids to play games' (Hopewell 2013). The billboards were eventually taken down after these efforts (Scurry 2013).

The interlocking of gambling and social media uses, platforms and practices, as well as the strategies through which gambling products are promoted in informational networks, has caused concern in local governments, as is the case in the state of Victoria, Australia. In 2013, the Victorian government launched a satirical ad campaign titled KidBet (http://kidbet.com.au/) under the slogan 'They should never go together' (KidBet 2013). In a video ad we can see a young boy promoting a fake sports betting app, in an attempt to emphasize the threat of gambling addiction to savvy but vulnerable young digital media users (Stravopoulos 2013). In the KidBet website, the Victorian Responsible Gambling Foundation states that: 'Community concern is growing over the impact gambling is having on young people, particularly through sport, advertising, online games and social media' (Victorian Responsible Gambling Foundation 2013). The CEO of the foundation, Serge Sard, told the Australian Broadcasting Corporation at the launch of the campaign that the ad 'is deliberately provocative because there appears to be a misplaced complacency around the issue' (Stravopoulos 2013). He also stated: 'There's saturation of free game apps that encourages kids to gamble . . . Social media promotes media activities, and gambling simulation games, that essentially teach kids how to gamble' (Stravopoulos 2013).

This campaign is a reaction to a new, and as yet misunderstood, form of consumption of gambling informed by digital media practices. Similarly, in November 2013 the Premier of South Australia, Jay Weatherill, called for new regulations on gambling-like apps. He sought the cooperation of Apple to 'make it an offence to supply gambling apps or games to minors' (AAP 2013).

He was forceful in saying: 'I won't stand back and watch a new generation of gambling addicts emerge' (AAP 2013).

Consuming social casino apps: Risking 'nothing' everyday

In the past forty years our academic understanding of consumers has developed much further than the oversimplifying notions revealed by the Gambling Is No Game and KidBet campaigns. It is important for gambling researchers to keep up with this more nuanced understanding of consumption. As Arvidsson recalls, in the 1970s the Cultural Studies tradition established that consumers 'are not "passive dopes" of mass culture, but that they act, resist and exercise creativity in their consumer practices' (2006, 17). Consumers generate and transform meanings while actively putting these meanings into circulation. He points out that for contemporary thinkers, consumption and the cultures that surround it are the point of entry for dissecting contemporary social relations and current forms of capitalism.

For the past twenty years researchers of consumer cultures, amalgamated under the rubric of Consumer Culture Theory or CCT, have explored 'the heterogeneous distribution of meanings and the multiplicity of overlapping cultural groupings that exist within the broader sociohistoric frame of globalization and market capitalism' (Arnould and Thompson 2005, 869). Gamblers have generally been grouped as a single demographic, with studies that target particular groups (by age, socioeconomic status or geographical location) focusing on the dangers that each category faces in terms of potential addiction. Lay and casual gamblers (and gamers), and the dynamics of their consumption, are rarely addressed in academic or journalistic discourse. This gap has wide implications for how social casino app users are understood as subjects and consumers (some researchers of gambling cultures have identified this gap; see Nicoll 2007).

The product mix that delineates his or her own personal or collective taste is certainly a meaning-creating activity that defines how the individual presents herself. Individuals express their identities through choosing what goods to buy or which services to hire or, in the case of mobile media, the mix of apps that run in their device.

Andreas Reckwitz's (2002) definition of practice (cited also by Couldry 2012, 40) is useful in understanding how social media practices, norms and affordances permeate consumption and interaction in social casino apps. Reckwitz (2002) argues that a practice:

. . . is a routinised type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge. (2002, 249)

Mobile social gambling involves bodily activities (clicking, excreting hormones while anxiously waiting for outcomes, carrying a mobile device around), mental activities (calculating the next move in a hand of online poker or the odds in an online slot machine), 'things' such as platforms and devices, a 'background knowledge' on the rules of the game and the nuances of each specific platform and a spectrum of states of emotion that ranges from hope to expectation to perhaps disappointment.

There is a set of *routinized* behaviours that permeate consumption in social casino apps. These behaviours are not only related to the procedures involved in gambling, but also to the creation, grooming and management of a social network related to these activities, as is evident in the opening vignette of this chapter.

In his recent book *Media, Society, World: Social Theory and Digital Media Practice* (2012), sociologist Nick Couldry tries to answer a sometimes overlooked question: What do people *do* with digital media? This question is key in understanding social casino apps and what users 'consume' when they use them.

Informed by Reckwitz, Couldry (2012) proposes an understanding of media based on practices, on finding patterns in what people *do* with diverse tools for communicative interaction. His focus is on the articulation 'of our media-related practices with other practices into larger combinations (our daily "routine", "schedule", "lifestyle")', as it 'is part of whatever order we find and rely upon in the world' (2012, 33).

There is a need for us to understand how *what we do* with media coexists with our actions in other realms (the domestic, the professional, the religious), other assemblages that are shaped by everyday practice, 'routinized behaviours' such as consumption. This broad generalization calls for an equally wide definition of media. Couldry considers 'media' to be not just traditional media such as radio, press, film or television, but 'all other media platforms, mobile or fixed, through which content of any sort – both institutional and individually produced – is now accessible or transmissible' (2012, 35).

Social casino apps and the techno-social formations that are generated around them by users and companies (forums, social media outlets, satellite smartphone apps and so on) certainly fall under this definition of media. Interactive images, player profiles, institutional and fan-made videos,



FIGURE 17.2 Screenshot from the Facebook app Betting Millionaire. The user is encouraged to share their achievements with their Facebook network of friends. Image captured through the author's Facebook account on 15 December 2013 at 2:29 p.m.

gambling software: all these are accessible and transmissible content. Couldry identifies different practices that online users perform when engaging with contemporary media forms such as Facebook, Twitter, online forums and, I argue, social casino apps. Among these practices we can include: searching and search-enabling, showing and being shown, *presencing*, archiving and commentary.

Besides playing, social casino app users engage in these practices by (1) choosing among a myriad of options in Apple's App Store, Google's Play Story and Facebook's apps catalogue (searching); (2) allowing their profile to be searchable for other players (search-enabling); (3) showing and being shown via their social media profiles; (4) creating and grooming an identity (presencing or sustaining a public presence); (5) archiving their gambling history; and (6) by providing commentary about the game dynamics in social media outlets related to the apps (Facebook pages, Twitter accounts and so on).

This logic provides for an interesting negotiation between user agency driven by enjoyment and industry calculation motivated by profit. Although

gamblers/gamers are autonomous agents that can and do engage in creative forms of play, their behaviours are also ultimately limited by what the digital environment allows them to do. In gambling-like platforms there is a monetary stake (even if it is 'fake'), so there is a strict set of rules and restrictions imposed by the house.

In digital gambling and other forms of mediated entertainment, consumption is action in the form of routinized behaviour, but not quite the submissive reception of content by the 'passive dopes of mass culture'. Consumption is an endeavour in which consumer goods and cultural products are used as a resource in the formulation of identities and forms of sociability. Nevertheless, virtual environments such as social casino apps, are 'collectively produced realities, but this collective production process is in turn guided, restrained and empowered, in short, governed, by the restrictions and possibilities offered by the environment' (Arvidsson 2006, 108; see also Boellstorff 2008). There is a degree of freedom of action and consumption, but that openness is coerced by the boundaries set by the service provider – ultimately a capitalist entity whose ultimate raison d'être is to generate profit by whatever means possible that could be understood in terms of what Jodi Dean calls 'communicative capitalism', an economic system which relies 'on the exploitation of communications' rather than on the exploitation of labour (Dean 2013, 4).

This sense of apparent freedom and benefit in social casino apps is exacerbated by one of the fundamental dynamics of online casinos and social casino apps: bonuses. Clarke (2003) uses casinos to exemplify contemporary forms of capitalist consumption, in which perks accompany the acquisition of a good or service. This has a relevant relationship to the dynamics and logic on which mobile social gambling platforms are constructed. Clarke argues: 'Evidently, the customers perceive benefits from the nominally free drinks their gambling subsidizes: they get both "free" drinks and the chance to win fabulous amounts of money' (2003, 11). He adds: 'What is most significant about this system, however, is the way in which it seems capable of conjuring up an increased "total amount of benefit" – for both consumers and casino operators – simply by diverting the system of supplying drinks through the supplementary detour of games of chance' (2003, 11). Being able to conjure an increased amount of 'total happiness' is, in his view, why 'the casino system provides a near-perfect analogy for the consumer society' (2003, 12).

In online casinos, for instance, these perks include loyalty and new membership bonuses, as well as exclusive content and entry into tournaments. In most desktop and mobile apps that simulate wagering, connecting to social networks, socializing with friends through games and the joy of 'winning' are included in these perks. Social casino apps provide entertainment and the chance to interconnect your gaming and social networks. Digital media

practices related to social casino apps are directly connected to the provision of these perks, which include bonuses and gifts (see Figure 17.3).

These digital media dynamics acquire a new political and economic dimension given the recent efforts from the gambling industry towards including real-life benefits derived from wins in virtual gambling, which pushes the limits of gaming into the realm of gambling even further. The app myVegas, developed by PlayStudios, allows players to cash-in their winnings in selected establishments in Las Vegas for prizes that range from free meals to tickets for shows or swimming with dolphins (Chapman, 2013). Partners include Wolfgang Puck and House of Blues, as well as The Mirage, Mandalay Bay and the Excalibur casinos. The gameplay itself is simple and repetitive, but the allure may lay in the fact that '[in] theory, the game is free to play forever, and players could fund an entire holiday in Las Vegas just from pressing that green button' (Street 2013).

Some of the slots available in *myVegas* are extensions of the casino and its partners' branding strategies, with titles such as *New York New York*, *Excalibur* and *Mirage*, all adorned with cartoonish designs that echo popular social gaming titles such as *Farmville* or *Angry Birds*. The app constantly invites you to add Facebook friends to the player roster, frequently offering bonus credits.

The MGM casino, one of the biggest in the Las Vegas Strip, originally launched MyVegas in June 2012. Initially, users could play with virtual money

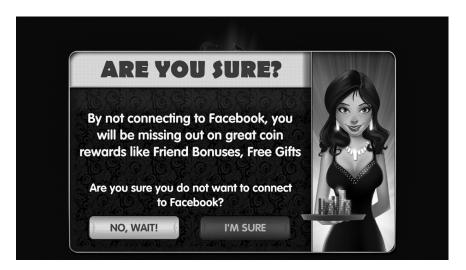


FIGURE 17.3 Screenshot from the Facebook app Game House. The user is encouraged to connect to Facebook in order to access perks such as bonuses and gifts. Image captured on the author's Android device on 10 December 2013 at 5:18 p.m.

to win virtual prizes alone. These corporate strategies are an effort of the traditional gambling industry to prolong the punter's relationship with the casino and to bring the casino into the online social life of gamblers/gamers . . . literally making them carry the casino around in their pockets.

Prior to the initial launch of *myVegas* in 2012, one year before the cash-in capabilities were activated, Tom Mikulich, MGM Resorts Senior Vice President of Business Development, said: 'Through myVegas, we can tighten our emotional connection between our brands and our customers . . . That's what we mean by convergence' (cited in Stutz 2012). This perpetual 'emotional connection' is associated with values such as commitment and belonging and allows the casino to be a ubiquitous presence in the gambler's life, further expanding the reach of its loyalty programs, facilitating 'perks' on a continuous, perhaps everyday basis.

The conversion of in-play credits to real-life benefits significantly challenges preconceptions of what social casino apps entitles the player to. Other online casinos are following suit. CaesarsCasino.com is one of the first casinos launched after the US state of New Jersey legalized online gambling in 2013. As you play roulette, video poker, blackjack or slots online, you accumulate rewards that can be used in land-based venues: 'Play the games you love and reap the rewards at nearly 40 resorts and casinos around the world' (CaesarsCasino.com 2013).

Conclusion: When social gaming and gambling markets collide

The paradigms of consumption of social casino apps, framed by more general digital media practices, have caught the attention of both the social gaming and the traditional gambling industries. In its *Australia Gaming and Leisure* report (2013), Nomura Equity Research identified that the social gambling market far exceeds 'real money' online gambling in terms of number of users, 170 million users per month versus 50 million users per month. However, there is also a mammoth discrepancy in terms of revenue: social gambling generates US\$2 billion per month, while online gambling produces US\$36 billion. Nomura Equity Research foresees an inevitable convergence between real money and social gambling, as 'ongoing industry consolidation is blurring traditional distinctions between land and online-based gambling operators and social game developers' (Nomura Equity Research 2013, 18).

This consolidation has involved key industry players such as IGT, which bought Double Down Interactive; WMS, which launched Lucky Cruise Social

Casino, a social casino that operates on Facebook; and EGM giant Aristocrat, which acquired Product Madness, a top five operator of slot games on Facebook, with more than 500,000 daily active users. In a further crossover between the entertainment and gambling industries Endemol, a Dutch media company best known for developing successful TV concepts such as *Big Brother* and *Deal or No Deal* has invested over US\$10 million in social casino company Plumbee (Barraclough 2013). Endemol intends to brand social casino apps with its successful transnational concepts. Aristocrat's CEO, Jamie Odell, explains in regards to social casino apps:

If you take the player base, which through Facebook is clearly millions, and the games take in, let's say, 30 cents per player per day, the math becomes quite easy. I would be very disappointed if it's not a major profit stream for us—I'm talking tens of millions of dollars in the next two-to-three years, and one of our largest streams of profit longer term. (Cited in Kelly 2013)

In similar acquisitions that point to the integration of the gaming, gambling and entertainment industries, social casino developers such as Bee Cave Games have moved into real money gambling, adding elements of multiplayer gaming proper to other media forms, such as multiplayer online role-playing games (RPGs). As Grubb explains: 'When players enter a slots game, it will match them with up to four other live gamers. The success of those people will then spill over into the other player's game, so that everyone feels more connected' (Grubb 2013).

This calculated effort by the gambling and gaming industries is testament of the generation of new markets and consumption practices, and of a palpable investment in new technologies that accommodate the digital media practices that users (both gamblers and non-gamblers) are habituated to.

Social casino apps establish new communicative configurations among gamblers/gamers and between users and companies. What users look for is not a 'big win' but fun; what companies rely upon is not compulsive play, but compulsive communication.

Notes

1 Natasha Dow Schüll writes about the interrelation between the rise of digital media and gambling: 'The growing consumer familiarity with screen-based interaction that accompanied the rise of the personal computer and electronically-mediated entertainment such as video games further facilitated the cultural normalization of screen gambling' (Schüll 2012, 5).

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18

Cheating in Candy Crush Saga

Marcus Carter and Staffan Björk

reemium' describes an economic model for digital software that involves a free basic service, with premium content available for customers that choose to pay. Freemium games are thus 'free-to-play' (F2P) and have grown enormously popular in tandem with the emergence of 'casual' games popular on non-dedicated mobile gaming platforms (such as iOS or Android devices) and social network sites (SNSs) (such as Facebook). A December 2012 survey estimated that revenue from free mobile and computer games has surpassed revenue from paid titles in the United States (Amano 2013).

Candy Crush Saga is one of the most commercially successful freemium games, being F2P while offering purchases of in-game 'lives' and advantages at a relatively low cost (ranging between US\$0.99 and US\$2.99 on the iOS version). This allows players to immediately restore their limited number of lives and continue playing or get help at advancing past a level that is particularly difficult. It is not possible to simply pay to advance past a level, but this monetization strategy still gives players an advantage in comparison to players who do not wish to pay. The game was released in 2012 for Facebook and mobile devices (iOS and Android). By March 2013, Candy Crush Saga had surpassed Zynga's Farmville 2 as the most popular game on Facebook and has been estimated at making between US\$1 million and US\$3 million from in-app purchases (IAPs) per day (Shanley 2013). With over 100 million active daily players (Dredge 2013), Candy Crush Saga is the most popular single game in the world.

In this chapter we discuss results from a series of interviews with *Candy Crush* players that revealed that many players consider these in-game purchases – crucial to the commercial success of this game and many others in its genre – to be a form of cheating. We thus contribute to this volume a critique of this business model driven not from ethical criticisms, but as a payment system configured in conflict with player motivations.

Cheating

Before discussing *Candy Crush Saga* and our results, we briefly overview some earlier attempts to conceptualize the phenomenon of cheating. This is to later use them as theoretical lenses for understanding why players may consider in-game purchases cheating.

In her aptly named book, *Cheating* (2007), Mia Consalvo argues that, while understood from a structuralist perspective (e.g. Suits 1978) as a transgressive and non-playful act, cheating (loosely defined in multiplayer games as 'gaining an unfair advantage', such as hacking the game to make your character stronger) is inherently playful and reflects the nature of digital games as spaces for experimentation. She leaves this definition open to facilitate understanding the dynamic cultural and social character of cheating in multiplayer online games (MOGs). Similarly, Jonas Smith (2004, 5) sees cheating as an 'altogether social construction'; as a form of 'extra-mechanical conflict' similar to griefing and other local norm violations, rather than a game-breaking act.

Through the lens of *Neopets* (Powell and Williams 1999), Delia Dumitrica (2011, 21–2) instead understands cheating as the product of a culture 'embedded in and recommended by the structure' of the neo-liberal capitalistic discourse of many modern online gaming environments. Darryl Woodford (2013), drawing on examples from the online gambling industry, subsequently argues for conceptualizing some forms of cheating as (lawful) 'advantage play' in order to 'loosen up' the regulation of online environments. He defines advantage play as play 'in which the player is able to turn the mechanics of the environment to their advantage without breaching the rules of the environment' and argues that the key contribution of such a concept is to extend our conceptualization of play acts beyond a clear dichotomy of legal/ illegal. This is not dissimilar to 'cheese' in *Warhammer 40,000* (see Harrop, Gibbs and Carter 2013) which is considered 'fair play' by competitive players.

Grounded in their investigation of 'botting' in the massively multiplayer online game (MMOGs) *Tibia*, De Paoli and Kerr (De Paoli and Kerr 2009; 2010) instead approach cheating as a socio-technical process and attempt to

go beyond defining cheating as that which provides unfair advantage. They argue that doing so limits theoretical and empirical investigations; cheating should be understood through the concept of assemblage (DeLanda 2005; 2006) in order to focus on the interrelational dynamics of games. Through a theoretical analysis of MMOGs as assemblage, they argue that cheating is an *imbroglio*, 'the entanglement – as interrelation – of different elements, whose purpose is to obtain a successful trick as result' (2010) and argue for understanding cheating as more than just a violation of rules.

Distinct from these approaches, and detached from a rule-based definition, Carter, Gibbs and Arnold (2015) consider cheating one of the moral, 'stylistic resources' available to players in their negotiation of what play is acceptable in multiplayer games. Developed through an analysis of match-throwing, bribery and espionage in *EVE Online's* eSport (see also, Carter and Gibbs 2013), they emphasize how the definitions and boundaries of the concept of cheating to players are 'shaped by the local contingencies of the moment' Carter, Gibbs and Arnold (2015), drawn on as a resource in including or excluding certain types of play from the sphere of acceptable activities in games. They note how players draw upon different conflicting and competing definitions of cheating, 'defining and redefining it to encompass [or not encompass] the play' Carter, Gibbs and Arnold (2015). In the discussion, we will argue that this conceptualization, as a rhetorical resource to delineate unacceptable play, is most appropriate for understanding player's reference to *Candy Crush*'s monetization as a form of cheating.

Research design

As a result of its unparalleled success, criticisms of its business model, and the comparative lack of academic attention casual games have received, we set out to study the player experience *Candy Crush Saga*. This research draws upon nine, 20–45 minute, semi-structured interviews with *Candy Crush* players, with interviews coded and analysed with practices congruent with grounded theory (Glauser and Strauss 1967). Participants in *Candy Crush Saga*'s largest demographic – 18–35-year-old women – were specifically sought, as they are typically under-represented in studies of players. In addition, time was spent reviewing online discussions of *Candy Crush Saga*. Our research in this study is also informed by an auto-ethnographic approach (see Linderoth, Björk and Olsson 2012) as the authors of this chapter have spent significant time playing *Candy Crush Saga* – collectively completing over 500 levels (Carter 200 levels, Björk 356 levels) but having spent no money on in-game purchases.

In approaching the attitudes towards what constitutes cheating in *Candy Crush*, we attempted to avoid a piori judgements about the value, ethics or morality of *Candy Crush*'s design and monetization practices, as it is player perceptions of these (rather than a supposed objective 'evilness') that we seek to identify and understand.

Candy Crush Saga

Released in 2012, Candy Crush Saga extends earlier tile-matching games such as Bejeweled with a progression system (see Figure 18.1), Facebook integration, limited 'lives' and increasing difficulty over time. The player earns points by switching a piece of candy with an adjacent candy piece to match a minimum of three similar candy pieces together which are then removed from the board. The game offers two primary modes for play; timed, where the player can make as many moves as possible until a timer reaches zero and limited moves, where the player has to reach a particular goal within a limited number of switches. Combining four or five tiles in a single move unlocks more powerful pieces of candy, such as the 'freckle', which when combined with a piece of candy destroys all pieces of candy of that colour on the board. Often (with a little luck), as candies fall in to replace those removed, a single move can cascade into a chain of satisfying and visually spectacular explosions.¹

When completing the goal of a level (e.g. get 20,000 points), the user receives one to three stars for their performance and unlocks the next level which has a slightly different, incrementally harder challenge. As the user progresses through levels, additional modes and candy types are unlocked. When integrated through Facebook, a user's progression is shared across the platforms they use to play. Through combining these new level types and different candy, *Candy Crush* offers an increasingly difficult and varied player experience.



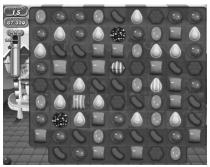


FIGURE 18.1 Bejeweled (*left*) and Candy Crush Saga (*right*).

Increasing the difficulty of *Candy Crush* is the limited number of lives a player has. When they fail a level, the user loses a 'life' which they regain following a 25-minute timer (see Figures 18.2 and 18.3). As the player can only have a maximum of six lives at any time, play is prevented from occurring in long uninterrupted sessions. The game (on mobile devices) can be configured



FIGURE 18.2 Levels in Candy Crush Saga.

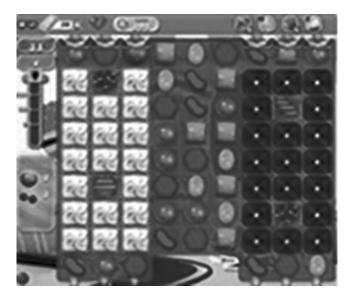


FIGURE 18.3 Level 395 in Candy Crush Saga.

to notify the user when a new life becomes available. This type of wholly artificial limitation, not implemented for multiplayer balance or justified in the in-game narrative, is one of the most common monetization practices in freemium games.

Monetizing Candy Crush

Candy Crush Saga implements a number of different design patterns (Björk and Holopainen 2004) which are then modified for monetization. The most prominent of these is made possible as a result of players having limited LIVES;² players are able to pay the small sum of US\$0.99 for five extra lives immediately. As games of Candy Crush Saga typically last for only a few minutes, such purchases can be made frequently, creating the possibility of players losing track of how much money they're spending while playing the game. It is in fact very difficult to track the amount of money spent on Candy Crush (and app games in general), something which both Apple and Google have received considerable criticism for (see Sarkar 2014). We do not want to suggest that artificial limits on lives are themselves a dark design pattern defined by Zagal, Björk and Lewis (2013) as a design pattern 'used intentionally by a game creator to cause negative experiences for players which are against their best interests and likely to happen without their consent' (2013, 7). However, combining this feature with monetary design patterns such as PAY-TO-SKIP, PLAYING BY APPOINTMENT and SOCIAL PYRAMID SCHEME, Candy Crush creates the possibility for it to meet the criteria of a dark design pattern.

The maximum number of Lives is also monetized; players can make a one-time US\$16.99 payment to permanently increase the maximum number of available lives from five to eight. Games on the Apple mobile App Store are normally priced at around US\$0.99–5, with very few games retailing in excess of US\$10. Consequently, this freemium tactic would be categorized as dark by Zagal, Björk and Lewis (2013) criteria as players are not aware of how much money they will have to spend in order to achieve their goals in the game. Making this one-time purchase gives players eight uninterrupted play sessions every three-and-a-half hours, a permanent advantage over others. Indeed, the psychology of this purchase is in stark contrast to purchasing a finite number of lives, which are immediately consumed, compared to increasing the number of lives permanently.

While those monetization strategies offer the opportunity to play, the second category of monetization is through in-game advantage. Players are able to buy 'power-ups' which can be stored and used at any time such as the finite ability to turn pieces of candy into more powerful candy (US\$1.99)

or a lollipop hammer (US\$1.99) which can destroy any individual candy. Other forms of these boosters are extra moves and extra time, advantages that can help a user progress through a difficult level.

Notable is the fact that the user is unable, through any monetary- or social-capital-based design, to skip a level. The in-game purchases only allow players advantage in completing a level, but do not guarantee the level that will be complete even if the user spends US\$10 of boosters. This absence features prominently in online discussions.

Cheating at Candy Crush

In our research, we found two distinct types of play that players felt were a form of cheating. First, there were technical cheats; using a third-party program during web browser play or altering the system time on a mobile device to trick the application into thinking enough time had passed so lives regenerated. The second surprising category of research that emerged was in-game purchases as a form of cheating; buying extra lives or in-game advantages. In this section we present the results of our interviews with *Candy Crush* players and explore the boundaries of what players consider cheating in *Candy Crush Saga*.

Technical cheats

There are two types of technical exploits defined as cheats by our participants. The first is, when playing on iOS devices, to change the system clock. Doing so tricks the *Candy Crush* application into thinking that time has passed and consequently, lives are regenerated immediately. A simple google search of 'Candy Crush free lives' or 'Candy Crush cheats' brings up numerous sites (some malware) that encourage users to do this cheat, but warn that it affects other applications (such as calendars, alarms and email). This latter consequence was enough for participant Ash³ (29, M) to avoid this cheat; 'I normally don't do that because . . . if you just change everything in other applications like email or whatever it is not a good idea.'

With the exception of Ariana (21, F) (who did not want to be told what the possible cheats were, lest it ruin her ongoing *Candy Crush* experience) all our participants had no objection to this form of cheating. Jenny (25, F) suggested that 'cheating to get extra lives is fine, because I still have to complete the task, you know what I mean?'; the extra lives only subverted control over access to the game, rather than the in-game challenge. Participant Brock (31, M) similarly separated the two:

It doesn't help you finish the level, it just gives you the chance to play the game again, so in that sense I probably wouldn't have a problem cheating the candy crush empire out of another dollar; I probably wouldn't really care!

This was a sentiment we also saw expressed online, with Kotaku's Mike Fahey suggesting that this exploit 'isn't cheating, it's time travel' (Fahey 2013). So despite it circumventing the coded rules of the game, it wasn't cheating because it did not affect *Candy Crush* play directly.

Notably, we found that knowing of this cheat had negative consequences. Jenny, a PhD student, explained that when she had to wait for lives to respawn *Candy Crush* better integrated with her daily life:

It was really good because I would have to mark 2 essays and then I got another life. It was a good sort of reward system for myself but now I've discovered how to get unlimited lives and it's become more of a negative influence.

Rather than the limited lives simply causing frustration that players might attempt to overcome by paying US\$0.99, it meant that *Candy Crush* better integrated with players' lives. Erika (25, F), whom we interviewed after she had deleted the *Candy Crush* app from her phone for consuming too much of her time and attention, was also glad she didn't know about this exploit beforehand; 'I probably would have just played for hours.'

The second type of technical exploit was third-party software that *Candy Crush* players can install on their computers, affording unlimited lives or unlimited in-game power-ups. Only Ash (29, M) had ever used these tools, but his use reflected the attitudes of other players towards monetization. Ash was a player who had begun playing with his friends overseas and had integrated *Candy Crush* with Facebook so that they could compete and compare their progress. After he told us about his use of third-party programs, which he concealed from these friends, I asked why he installed this software:

I guess maybe it's the frustrating experience oh and you get sometimes there is one or two steps to finish that you can't, then you end up failed and you feel bad and, and, as a computer scientist you know how the computer works and I guess yeah you lets you think about there must be something to bypass this thing so I start searching and if you enter it in google you will find it. And back to the question why I didn't pay and how is it fair to our friends and my answer is; they choose to pay I choose to use those tools. So it's kind of the same.

Researcher: So yours is just the thrifty, the cheap option

Ash: Yeah.

This justification of using a technical exploit worked to categorize purchasing in-game advantages as a form of cheating. Ash, who had refused to pay, felt that his friends were cheating by making in-game purchases of power-ups. Like Consalvo's (2007) definition of cheating as gaining an unfair advantage, to Ash, paying money was also an unfair advantage, a fact he used to justify his own use of technical exploits.

In-game purchases as cheating

Of our participants who had paid, none had bought power-ups. I asked Jessie (25, F), who had spent approximately US\$25 on extra lives while playing *Candy Crush*, why she had never bought them:

Um, well firstly because I thought it was like a waste of money, a bit like cheating, you know? Um, and you know, it would be better if I could say [to my friends] that I'd never used power ups because it's quite difficult to do that.

Similarly, after asking Jenny (25, F) who hadn't paid any money in *Candy Crush*, why not just pay a dollar to progress past a 'frustrating' level she had been stuck on for a long time, she argued 'because then I won't have completed the challenge. It feels like cheating'. We later questioned how it was cheating:

I just feel like I haven't, I feel like it would be like taking the soft option to get through the task and I wouldn't get the same level of satisfaction out of it which is the whole reason I play.

What these justifications come down to is the motivation a player has to play *Candy Crush*. Both Jessie and Jenny played *Candy Crush* as a break from other work, as an engaging and challenging puzzle to spend a small amount of time briefly solving which purchasing power-ups disrupts.

Near the start of our interview when the interviewer asked Brock if he had ever been tempted to cheat at *Candy Crush*, he immediately assumed that we were referring to those legitimately purchased power-ups. He similarly felt that using power-ups took away the appeal of playing; 'just taking a magic toy that gets me through the next level and then I'm like, what did I even do then? What was the point of that? The challenge is gone, the puzzle is

just gone.' To Ash, the player who used the third-party cheat programs, the motivation was different; to compete against his friends and advance through the game and consequently his attitude towards cheats was different. This aside, all these players still felt that purchases of power-ups was cheating in some form. James (61, M) even expressed this attitude towards any type of purchase:

Within the household it's definitely not on to pay . . . and among their [his children] friends who play, it's considered cheating. If you did do it you'd never talk about it!

These quotes have demonstrated the findings from our research that some players consider in-app micro-transactions a form of cheating. In particular, those purchases that afforded an advantage within the game were considered to give players an unfair advantage in competitive play and otherwise take away from the purpose of playing and thus the enjoyment of the game. We also saw this categorization as justification for using complex technical cheats, such as third-party programs. More simple exploits, such as those that afforded unlimited lives, were still considered cheating but were less denigrated; principally because they had no effect on the gameplay. Unsurprisingly, these then appeared to be the most common form of in-game purchase made by our participants.

Discussion and conclusion

Although accurate data is unavailable, it is typically cited that 10 per cent of the players who play 'freemium' games account for 50 per cent of the revenue (Dredge 2011; Rigney 2012). A more recent Swrve report (2014) suggested that only 49 per cent of players make any purchases at all. Those making multiple purchases (totalling over US\$20) contributing the lions' share of revenue are colloquially referred to by developers as 'whales'. Discounting the revenues from in-game advertising, this presents an astonishing conundrum for the social, casual, mobile genre which typically relies on the freemium model: why don't over half of players pay at all? Indeed, as the freemium economy has increased, users in the Apple and Android app stores are increasingly less likely to make outright purchases (Kulyk 2012) in the face of a flooded market of (ostensibly) free games.

It is thus of some significant importance that many players of *Candy Crush*, currently the most successful social, casual, mobile game, consider these IAPs – fundamental to its business model – a form of cheating. Obviously

with its recent IPO valuing the company at US\$7.6 billion (Carey 2014), with a reported US\$1.8 billion in revenue (Villapaz 2014), many feel that payment is an acceptable way to circumvent in-game challenge, but much more could be made if these feelings of cheating could be reduced.

As noted earlier, cheating has been thoroughly explored in game studies. Structuralists (e.g. Suits 1978) sought to define cheating as a violation of a game's formal and definable boundaries, but others claim that such boundaries do not exist. For example, Consalvo (2007) defined it as playful, reflecting the nature of game-spaces as places for experimentation and creative play. We see this common definition having significant rhetorical weight in this study; fair, for *Candy Crush* players is unaltered and the appeal of the puzzle-based game is in beating the challenges fairly. However, this does not explain the categorization of in-game purchases as a form of cheating, as power-ups 'earned' (rather than bought) through gameplay are considered legitimate play.

The circumstances in which we saw the purchase of in-game advantages as acceptable were when the focus of the play was not on the challenge of an individual level, but the challenge of advancing through the game's progression mode. In these circumstances, purchasing an in-game advantage to bypass a particularly hard or challenging level was a more acceptable, but still to many, a form of cheating, as it cheapened the challenge of getting to high levels.

We noted in our research another challenge to *Candy Crush*'s monetization which reflected the significantly low percentage of players making IAPs. While cheating in the form of gaining unlimited lives was attractive to some, as it allowed them to play on their own terms (only 'cheating the candy crush empire'), some felt that learning this cheat had diminished their experience of the game. Rather, they recognized that the limitation of playing was part of its appeal; a reward for waiting 25 minutes to play (perhaps having worked on a hard task in the interim) or as a formalized limit to reduce the impact of *Candy Crush*'s 'addictiveness'. To those with enough self-restraint or aversion to paying money, not paying saw the game more successfully and positively integrate with their daily lives.

Thus here, like in Carter et al. (2014), we attempt not to rely on a definition of cheating; it is not that it is an unfair advantage that in-game power-ups are cheating (earned power-ups are not thought of as cheating). Similarly, they are not a trick (De Paoli and Kerr 2010); no deception or deceit has occurred with power-ups, and they are most certainly not a violation of the game's formal rules. The categorization of IAPs in this context as a form of cheating is best understood as an attempt by players to denigrate the practice as unacceptable because it does not align with their motivations to play; to pass time, as a break from work, overcome a challenge, solve a puzzle or to

relax. In order to achieve these aims the game and challenge must be fair, unaltered and achieved within the game rather than through demonstrations of economic power. Rather than drawing from a specific definition of cheating, the concept is simply being used as a moral resource to devalue this type of play, a devaluation of sincere concern to those who employ this business model. 'Freemium' games should offer players the opportunity to enhance their experience in accordance with their motivations to play and enjoyment drawn, or making IAPs will remain a socially hidden – and thus less successful – business model.

Notes

- 1 This tenant of *Candy Crush Saga*'s design is strikingly similar to another enormously popular casual, mobile game; *Angry Birds*, where Brendan Keogh notes a single input can (with a little luck) be amplified 'into a massive spectacle of destruction' (Keogh 2014: 9). This facet of *Candy Crush Saga*'s gameplay was noted by many of our participants as part of the game's appeal.
- 2 We follow the precedence by Lankoski (2010) in indicating patterns through the use of SMALL CAPS.
- **3** All participants in this study have been assigned and are referred to by unique pseudonyms.

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Afterword

19

Reflections on the casual games market in a post-GamerGate world

Adrienne Shaw and Shira Chess

Introduction: A rapidly shifting industry

In the conclusion of *How to Do Things with Videogames*, Ian Bogost (2011) argues that 'as videogames broaden in appeal, being a "gamer" will actually become less common, if being a gamer means consuming games as one's primary media diet or identifying with videogames as a primary part of one's identity' (2011, 154). That was in 2011, though, before the Internet phenomenon known as GamerGate helped demonstrate that 'gamer' is still an important and salient identity for some. Bogost was not wrong to suggest that being a gamer is unimportant to some people who play games. As Shaw (2012) has demonstrated, playing video games does not always mean identifying as a gamer. Gamer has come to describe a very particular relationship to digital and non-digital game culture. It is an identity born from fandom, much like cinephiles or Trekkies, and like any identity it intersects with others such as gender, race, class, sexuality and so on. Norms of gamer culture mark certain types of play, casual play¹ in particular, as outside the bounds of gamer identity. Gamer identity is also experienced in relation to popular representation,

subcultural norms and social context (Bergstrom, Fischer and Jenson 2014). At the same time, the rise of casual, mobile and social games have helped to expand the digital game audience beyond the gamer audience (Chess 2013).

As we explore below, GamerGate is far too complex to be tied to any singular goal. However, one consistent thread in the GamerGate discourse² is pushing back on negative representations of gamers. Participants took particular issue with a group of so-called gamers are dead opinion pieces and used those pieces to rally others. GamerGaters have argued that the framing of gamer as an exclusionary identity and culture is offensive, insisting that gaming is a differenceblind community. The chain of logic might seem confusing, but it is vitally important to parse. On the one hand, journalists and scholars alike have argued that who plays digital games has expanded in recent years. Moreover, research demonstrates that playing digital games is not the same thing as identifying as a gamer (Shaw 2012; De Grove, Courois and Van Looy, 2015). Moreover, for decades scholars and critics have pointed out that the construction of gamer culture around gender, sexual and racial norms has shaped who invests in game culture and the game industry. Yet when this was pointed out in August 2014, it was read as an attack on gamers. Through a letter-writing campaign targeting companies that advertised on the websites featuring these articles, harassment of anyone who supported the authors or their points, and conspiracy theories, GamerGaters sought to prove that gamer culture is inclusive.

Fascinatingly, GamerGaters argue that gamer identity is completely inclusive while being violently opposed to the discourse of inclusion. In the long term, GamerGate could serve to demonstrate what many have long suspected: that even if a person likes playing digital games, identifying as a gamer may not be for them. As scholars and critics then we have two, not mutually exclusive, options. One is to reclaim gamer identity as indeed for anyone. From *Diner Dash* to *Call of Duty* to *Madden* to *Skyrim*, anyone who enjoys playing games can call themselves a 'gamer'. Another option is to insist even more vociferously that not everyone *has to* identify as a gamer to claim a stake in games and the game industry (just as the film industry need not cater to film buffs alone). In either case we assuredly disagree with the assumption, present in much of GamerGate discourse, that 'gamers' are the only ones who get to care about games or that true gamers cannot critique games as cultural objects.

What is GamerGate?

At the start of 2015, GamerGate entered its sixth month and it is increasingly hard to offer a concise history for it. So much has happened, in so many venues, focused on so many issues, that we could not hope to capture everything in a

single chapter. Instead we focus here on its origins and the fight over the term 'gamer' as one prominent thread of discourse.

On 27 August 2014, actor Adam Baldwin tweeted a link to two YouTube videos along with the hashtag #GamerGate. The videos, posted by a user called Internet Aristocrat, were part of a series accusing game developer Zoe Quinn of using affairs with men in the video game industry to promote her free Twine game *Depression Quest* (Romano 2014). Those accusations proved baseless (Totilo 2014). All of this started because of series of blog posts by a former boyfriend of Quinn's, Eron Gjoni, which accused her of a litany of affairs and other transgressions (Kilma 2014). In short, a failed relationship became national news thanks to a cult favourite actor, a series of YouTube videos and an Internet harassment campaign that has yet to end – and that is but the tip of the iceberg when it comes to understanding GamerGate.

For one, the origins of what became GamerGate started much earlier in August in a 4chan chat room. The chat room burgerandfries was started on 18 August on the topic 'The Zoe Quinnspiracy'. Building on salacious claims made against Zoe Quinn by her ex-boyfriend, members of the chat room were planning a coordinated attack on Quinn similar to the harassment of feminist popular culture critic Anita Sarkeesian (Chess and Shaw 2015). The members of this chat began making connections between Quinn and Sarkeesian to bolster claims that there was a larger feminist conspiracy plotting to destroy the video game industry. Later, in response to the much-publicized harassment of Zoe Quinn and Anita Sarkeesian, several journalists posted articles announcing the 'death of gamers' on 28 August (Auerbach 2014). The number of articles appearing all at once was used as evidence that there was an even larger conspiracy than already suspected, involving academics and the government, as we outline in more depth elsewhere (Chess and Shaw 2015).

The hashtag picked up steam as the critiques of gamer identity were deployed by GamerGaters as evidence that gamers, particularly heterosexual, white, cisgendered male gamers, were under attack. The response ranged from the mundane to the horrific. Many participants reportedly took part in letter-writing campaigns to companies that advertised on the websites featuring the 'gamers are dead' pieces and subsequent articles that painted GamerGate in a negative light. Anyone who posted to the hashtag, or elsewhere, critiquing GamerGate often faced harassment. Anyone associated with the supposed feminist gaming conspiracy found their mentions in Twitter filled with comments from GamerGate supporters. In particular, GamerGaters targeted people they identified as social justice warriors (SJWs) in games journalism and development as well as academia (Cross 2014a).

Journalists outside of the world of gaming, unsurprisingly, primarily focused their GamerGate stories on harassment of female game developers

and journalists. We say unsurprisingly as, lacking much evidence of corruption, beyond people in the same industry being friends, the most scandalous things to come to light during GamerGate were direct attacks on women who were identified as enemies of the gamers. The worst of the attacks came in the form of doxxing (posting of large amounts of a target's personal information online), swatting (tricking police units into raiding a target's home) and death threats. Doxxing and death threats drove Zoe Quinn and another game designer Brianna Wu from their homes. Wu's offense was re-tweeting image memes that made fun of GamerGate submitted to her by fans of her podcast (B. Stuart 2014). Moreover, feminist popular cultural critic Anita Sarkeesian, who had been receiving harassment and death threats since 2012 for her series of videos critiquing sexist tropes in video games, was forced to cancel a talk at the University of Utah following a mass shooting threat (Hern 2014).

Many GamerGaters asserted that there was no evidence that these threats came from GamerGate. It is an easy claim to make only if we ignore that GamerGate is far more complex than the simplified narratives of cable news or the 140-character limit of a tweet, can ever hope to communicate. GamerGate is much more than a Twitter hashtag. It is a constellation of websites: 4chan and now 8chan chatrooms, reddit threads, image memes, Tumblrs, Facebook groups, YouTube videos, articles, blog posts, comment sections and forum topics. The hashtag itself is used by two clear groups of users (those supporting it and those critiquing it), but hard numbers of participants are hard to come by because of the number of new/secondary accounts used to post to the hashtag (Baio 2014). Moreover, despite clear 'sides' on the hashtag, there are no clear sides given the variety of ways GamerGate is either supported or critiqued.

GamerGate as a gamer identity movement

Given this complexity, knowing what to call GamerGate is a bit tricky from a scholarly standpoint. Neither community nor movement seems to properly encapsulate it. Certainly, GamerGate seems to have been started and its momentum built with goals in mind (however vaguely stated) and some participants have referred to it as a consumer revolt. At the same time, participants often refuse to speak of GamerGate as a focused movement, so as to distance themselves from the violent fringe that also uses the hashtag and other web forums. It has the makings of a community, drawn together by a shared purpose and feeling of being threatened from the outside. Yet GamerGate discourse often includes 'war speak', with talk of 'operations' and 'campaigns' to vanquish

the foes of gamers and the game industry. According to Cathcart, a movement requires that 'there must be one or more actors who . . . cry out through various symbolic acts that true communication, justice, salvation cannot be achieved unless there is an immediate corrective applied to the established order' (1972, 87). It is tempting to frame GamerGate as a movement in this sense, but it is difficult to see a group of people who have ultimately profited over a lack of diversity for many years, as being persecuted by calls for more diversity. However, for the purposes of this chapter, it is important to acknowledge that GamerGate discourse positions it as a movement. In particular, participants see themselves as fighting the injustice of critics (supposedly) misrepresenting their identity, hobby and culture. Whether this is true is less important than the fact that it is the subject position adopted by GamerGaters.

If GamerGate is a movement then, what is it a movement about? When we pull away the hate speech, the clear attacks on feminist (in particular) criticism of games, the conspiracy theories and the hard-to-support assertion that 'it's really about ethics in journalism' the one thing that remains seems to be a need to defend gamer identity. Indeed in a KotakulnAction thread³ titled 'when did you join the cause?' nearly all of the responses identify what they perceived of as attacks on their gamer identity as a motivating factor. Based on our observations of the hashtag, a large number of users who are not directly involved in harassment (even some who identify as feminists or liberal) feel allegiance to gamer identity that is manifested in their support for GamerGate. Also, the targeting of academics and journalists is lent legitimacy by emphasizing the ways in which those parties have helped to guestion gamer identity. Sargon of Akkad, for example, has posted several videos specifically blaming Adrienne Shaw for the 'death of the gamer' articles by claiming that her work was an inspiration to several journalists. Specifically, Shaw's journal article 'Do You Identify as a Gamer' (2012) was cited as a primary node in how the feminist games movement and games journalists began to question the identity politics around 'gamer' in the first place (Sargon of Akkad 2014).

Furthermore, to demonstrate that GamerGate was not simply about misogyny, members of a subreddit suggested starting a new hashtag: #NotYourShield (Cathode Debris 2014). This hashtag was meant for people who did not identify as white, cisgendered male or heterosexual but who did not agree with SJWs (and thus did not want to be used as a shield by SJWs). According to a September 3 reddit post promoting the use of #notyourshield #gamergate: 'Use these to talk about SJW hypocrisy. Be clearly in favour of #gamergate. Focus on corruption and how your voice is silenced because you don't fit the agenda.' In the burgerandfries chat room #NotYourShield was celebrated for proving that, despite what they felt others had claimed, gamers were not simply heterosexual, white, cisgendered men. In doing so

#NotYourShield was used as evidence that gamer culture was completely inclusive, thus asserting all claims to the contrary false. At the same time, the history of the term 'gamer' illustrates specific connotations that helped make GamerGate possible.

History of gamer

It is fascinating that if we look at GamerGate as a gamer identity movement it shares many of the same goals game criticism and scholarship have had for years. Game scholars, for example, have spent many years dispelling the negative or limited stereotypes of gamers (though many of those doing that work were derided by GamerGate). At the same time, however, GamerGate discourse reinforces many of the norms of gamer culture that have helped limit gamer identity. We can see this by looking briefly at the development of the word 'gamer', as well as journalistic and academic critiques of the term.

Gamer is not a particularly old word, though its origins predate digital games. According to Jon Peterson (2014), one of the earliest variations was 'wargamers' which referred to people who played early twentieth-century military command simulations that were precursors to pen-and-paper role-playing games (RPGs) such as *Dungeons and Dragons*. Wargames had been around since the midnineteenth century, but it was not until the 1950s that fans of the genre began self-identifying as and engaging in activities specifically hailing wargamers. At the time, Peterson goes on to describe, participants in the subculture were largely male. That did not mean women did not play them or identify as wargamers early on, but that their participation was treated as an exception to the male rule. As he points out in an interview: 'I don't think the word was originally intended to exclude women, but female participation was surprising: thus we see lots of qualifiers like "women gamers" or "lady gamers" by the mid-1970s when the community began to diversify' (Campbell 2014).

Turning to digital games, by the 1980s, *Video* magazine's game centric column *Arcade Alley* had switched from referring to their target audience as 'fans' (Kunkel and Laney 1980a) and 'players' (Kunkel and Laney 1980b) to 'gamers' by 1981 (Kunkel and Laney 1981a). Fascinatingly, the first time they used the term 'gamer' was specifically in reference to people who were forced to play alone because those 'with average videogaming skills often bores the good players while frightening off the bad ones'. This semantically marked 'gamer' as more than a casual player but not yet an expert. A gamer was a fan, a hobbyist. And by December 1981, the columns point to 'gamers' as the ones would be receiving and shopping for video game cartridges in the holiday season (Kunkel and Laney 1981b). Two years later the holiday shopping guide was titled 'Super Gifts for Gamers' but at this point gamer

was used interchangeably with home arcader and player to refer to anyone playing the game (Kunkel and Katz 1983). It is important to note that this was around the same time the US game-playing market began to stagnate and ultimately collapse (Kent 2001). By the end of 1983, it is possible the columnists suspected that the only people left playing games were 'gamers'. The industry's collapse, moreover, is largely credited with the video game industry's turn to courting a 'hardcore' target market (Keogh 2014).

As several scholars have demonstrated, advertising and the early games press cultivated a sense of community, identity and culture around the playing of video games following the 1983 crash (Consalvo 2008; Kirkpatrick 2012). UK gaming magazines during this period, Kirkpatrick (2012) observes: 'address their readers more assuredly as teenage males'. Moreover, as Bergstrom, Fisher and Jenson (2014) demonstrate, early twenty-first-century popular representations of 'gamers' still often portray them as male and generally negatively. Although not everyone who identifies as a gamer is a middle-class, teenaged, white male, media portrayals have helped mark it as a classed, aged, racialized and gendered identity. In turn, game content is tailored to this imagined core audience, unless especially marked for another market (e.g. the 'girl games' of the 1990s). Being a gamer, in the sense of being particularly invested in and knowledgeable about video games, serves as an important gateway for entering into video game development (O'Donnell 2014). Thus, as scholars have pointed out, game texts are created with a particular (young, white male) market in mind, which helps shape (but does not determine) who feels called upon to play games, and ultimately shapes who feels welcome in the industry where these games are made (Kline, Dyer-Witheford and de Peuter 2003; Kerr 2006). Over the past few years that has changed: a more diverse group regularly play, talk and write about games. GamerGaters seem to take issue with this, referring to it as an incursion on their pastime by outsiders. Yet women and other members of marginalized groups have always been part of the game industry and self-identified gamers have never been the only market for digital games. Moreover, with the explosion of mobile, social and casual gaming in recent years, gamers are far from the most important market anymore.

The role of mobile, casual, social games in expanding the market

How can we better understand mobile, casual and social games within a space that has previously been defined by a hardcore audience? Casual gaming often characterizes play styles necessitated by both mobile gaming (such as *Angry Birds*) and social media game applications (such as *Farmville*). The casual game

industry has expanded audiences beyond those who play on expensive PCs or consoles. The emergence and continued popularity of casual gaming shifted the market so rapidly and dramatically that there seems to be an undeniable link between the growth of casual gaming and the emergence of GamerGate. After all, the egalitarian styles of play afforded by fast-paced casual and mobile markets helped displace perceptions in both game culture and game industry that all video game players are necessarily 'hardcore'.

As game scholars we have often been amused by how readily people refuse to admit to playing video games, let alone being identified as gamers. Commonly, we hear people say they don't play video games, only to go on to talk about how much they play *Angry Birds*, *Just Dance* or *CandyCrush Saga*. Mobile, casual and social games do not look like what gamers are commonly represented as playing. Despite a seemingly endless number of articles claiming that more people are 'gamers' (Worley 1982; Casserly 2010; Harwell 2014), what we have actually seen is simply a consistent increase in the number of people who play digital games (K. Stuart 2014). Thanks to decades of niche marketing, and further thanks to the misogyny that participants in GamerGate both enact and attempt to distance themselves from, 'gamer' has come to symbolize much more than simply being one who plays digital games.

Of course, there is no question that the emergence of casual, mobile and social gaming opened doors to *some* gaming audiences. Much of this shift began with the Nintendo Wii and DS systems in the mid-to-late 2000s (Vanderhoef 2013). Additionally, the shift from dumb phones to smartphones in the last decade has meant that most people carry gaming systems with them always. Gaming is no longer physically tethered to spaces with sleek systems and fast Internet speeds. Several genres have emerged within casual, including time management games, hidden object games, word games and social games – just to name a few. Games such as *Diner Dash, Cake Mania* and *Mystery Case Files: Ravenhearst* have also introduced more female-friendly protagonists into gaming (Chess 2012; 2015).

Much has been noted about the dismissiveness often afforded to casual gaming – both inside and outside of the video game industry. When Farmville won Game of the Year at the Game Developer's Association in 2010, the industry responded primarily with indifference (Terdiman 2010). In 2012, the New York Times listed Farmville and Angry Birds as among the new kind of 'hyperaddictive' and 'stupid' games (Anderson 2012). Even within academia, there has been backlash with Ian Bogost (2010) parodying Farmville with his game Cow Clicker, which was meant to highlight and mock its simple game mechanics. Along with this kind of dismissiveness towards the games, is often dismissiveness of the players, with game columnists referring to casual

gamers as 'middle-aged women' who play video games when they are not watching Oprah (Kato 2007).

Yet, these games have clearly and deeply affected the industry. As the idea of the 'what' of video games expands – as we renegotiate what a video game might be and what the potential audience might be – there is the inevitability of anger and displacement of past audiences. It is impossible to think about GamerGate without considering the possibility that it is the diversity of market in casual, social and mobile gaming that helped to facilitate the outrage embedded at the core of GamerGate. What once belonged to a community that was specific, specialized and lacking in diversity can now belong to nearly everyone. And when it belongs to everyone, more people get to have a say in what games, and perhaps game cultures, look like.

The death of gamers?

Of course, digital games have never *just* been for gamers, nor have gamers been as completely homogenous or villainous as popular cultural texts suggest. So why so much uproar when journalists pointed this out in August 2014? Part of the answer might be the fact that one of the first articles was written by Leigh Alexander, who has received an obscene amount of harassment for being an outspoken critic of toxic game culture and a proponent of making the industry more open to marginalized groups. In describing changes to the industry, her article exposes a fear that perhaps some gamers did not even realize they felt:

This is hard for people who've drank the kool aid about how their identity depends on the aging cultural signposts of a rapidly-evolving, increasingly broad and complex medium. It's hard for them to hear they don't own anything, anymore, that they aren't the world's most special-est consumer demographic, that they have to share. (2014)

Alexander calls on the game industry to stop courting and promoting the most hateful version of game culture. GamerGate critiques of this piece often fail to see that she is not making universalizing claims about gamers being awful. But maybe that doesn't matter because what she is saying is that gamers do not 'own' games.

Indeed the biggest common denominator in the 'death of gamers' articles is not the assertion that gamers are dead; in fact with the exception of titles (many of which were added by editors) nearly none of the articles actually uses that phrase. What nearly every article emphasizes is that a particular

type of gamer is ruining games for everyone else. Moreover, they argue that the expansion of the video game market has made it so that gamers do not get to own games. As Liz Ryerson (2014) and Katherine Cross (2014b) have both pointed out, the critique of gamers and the idea games are not *just* for gamers anymore rubs up against a history of being told that games are a waste of time and that games cause violence and hate.

If trying to defend an industry that had long catered to them and a subculture that had long been the butt of media jokes or moral panics is what drove many supporters to GamerGate, it is easy to see how the casual, mobile and social games helped set the stage for GamerGate. It is possible that these small games, the very games that the industry has often been so dismissive of, could have caused the death of gamers. Casual, mobile and social gaming helped de-specialize the medium and helped us see once more what games can look like outside of gamer subculture. If gamers are indeed 'dead' (that is, if the identity of the gamer is no longer a salient one that carries meaning) then this is likely due to large cultural, infrastructural and networked shifts that have happened within – and apart from – the video game industry over the last decade. The emergence of the casual game market, though, certainly has helped to illustrate the power of the small game and how it can ultimately affect culture in a big way.

Notes

- 1 Here we mean casual in terms of a casual approach to playing, not simply the play of casual games.
- **2** When we refer to GamerGate discourse, we look at this holistically by including posts to the hashtag, reddit subthreads, 4chan and later 8chan, YouTube, GamerGate websites, as well as imgur images and image memes posted in these venues.
- **3** KotakulnAction is a reddit subthread where much of the conversation around GamerGate happens outside of 8chan and Twitter.

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