JOURNAL OF COMPARATIVE RESEARCH IN ANTHROPOLOGY AND SOCIOLOGY

Copyright © The Author(s), 2015 Volume 6, Number 1, Summer 2015 ISSN 2068 – 0317 http://compaso.eu



Playing with progression, immersion, and sociality: Developing a framework for studying meaning in APPMMAGs, a case study

Matt Bouchard¹

Abstract

Conventional video games are not only immersive, but also difficult to play; in addition, they require a considerable amount of time to learn and play. These features help in creating a sense of purpose or meaning in the game. However, in a game with no graphics, sound, story, or difficulty, how do players find or create this meaning for their in-game actions? This article explores Abstract Persistent Progressive Massively Multiplayer Asynchronous Games (APPMMAGs) - a class of games that do not possess any of the usual features associated with conventional video games. To explore these games, a theoretical framework is proposed that examines some common rhetorics of video game meaning-making - specifically, progression, immersion, and sociality - in the context of APPMMAGs.

Keywords

Meaning-making, video games, casual games, social games, MMORPGs

Introduction

In a game with no graphics, sound, or story, how do players find or create meaning for their in-game actions?

Whereas there is much research on player meaning-making in immersive, difficult, high-time-commitment games, there are relatively few studies on meaning-making in games with none of those features. The larger goal of this project is to determine the nature of meaning-making in these unusual games. The goal of this paper is to introduce APPMMAGs, build a theoretical framework for studying meaning-making in APPMMAGs,

¹ Faculty of Information, University of Toronto, Canada, matt.bouchard@gmail.com

and then apply that framework to a sample APPMMAG to show how the framework operates.

This paper begins by describing APPMMAGs, followed by a discussion of terms and context, a review of relevant scholarly work, and a proposed theoretical framework. The background reading and framework are grouped into three areas: the rhetoric of progress, the rhetoric of immersion, and the rhetoric of sociality. The rhetoric of progression suggests that players must advance through a game to experience all of the available content. The rhetoric of immersion posits that games have to provide a rich experience that pulls the user in. The rhetoric of sociality argues that games must include social aspects and even social features and requirements. The scholarship in each of these areas explains the phenomenon, exposes the power of these rhetorics, and expresses the need for further work in this area. Abstract Persistent Progressive Massively Multiplayer Asynchronous Games (APPMMAGs) represent a class of games that are understudied and are fertile ground for the exploration of meaning-making through cultural rhetorics.

The Testing the lens section provides an example of APPMMAG meaning-making by examining a player who primarily pursues in-game achievement. The Discussion section applies the proposed framework to the achievement player's account. The conclusion provides a summary of the discussion and some ways to generalise the findings, and the Future work section suggests ways to move the framework forward.

Common language and theoretical frame

The purpose of this section is to provide the reader with some context on APPMMAGs and their players, to contextualise this project within the existing literature on the subject of meaning-making in APPMMAGs, and to explicate a framework that can be used to study them going forward. First, a definition of APPMMAGs is presented along with a few illustrative examples. This is followed by several overarching concepts that inform the rest of this study: meaning-making, cultural rhetorics, and subversion. Next, the cultural rhetorics of play that make up the framework, and aspects of subversion are described. Finally, the rhetorics of meaningful play in APPMMAGs are discussed.

APPMMAGs

APPMMAGs are Abstract games, similar to chess, in that there is little story and no vividly-expressed game world. They are Persistent in that the game world exists and dynamically changes even when players are not present. APPMMAGs are Progressive in that the player's in-game representation, or avatar, progressively gains power and ability, changing what actions are available to the player within the game. These games are Massively Multiplayer Asynchronous because they allow many people to play within the same world but not necessarily all at the same time.

There are thousands of APPMMAGs, and many can be found by browsing one of the many free browser-game portals (such as mmo-play.com, mmohuts.com, and browsermmorpg.com). In game development terms, they are extremely cheap to develop and maintain, and they can be very lucrative (The Telegraph, 2009). Some examples include Torn City (Chedburn, 2004), Travian (Travian Games, 2004), and Farmville (Zynga, 2009).

Torn City (Chedburn, 2004) is abstract in that it is text based with few images and little narrative. The game world is expressed by a series of hyperlinked webpages differentiated largely by a banner image and a location title. Play is progressive in that it is centred on improving avatar strength, gaining better weapons and armour, and killing and stealing from other players. Torn City is persistent as the game continues when players log off, and it is asynchronous as players can interact even if they are not present in the game world at the same time. The game world includes nearly 20,000 daily active players (torn.com) so it is massively multiplayer.



Figure 1: Torn City avatar/profile page showing level, money, energy etc. in the top left, accomplishments in the middle, available actions on the right, and world locations on the left under "Areas". (http://www.torn.com/profiles.php?XID=420614)

Travian (Travian Games, 2004) is more graphical than *Torn City*, but the world is just as abstract (Figure 2 illustrates that although there are graphics in *Travian*, they serve mostly as background art), and most game information, including the minimal narrative, is provided through text. Play is focussed on constructing progressively more powerful buildings and troops and fighting other players for resources. *Travian* persists when players log off, online players can interact with offline players, and there are more than

three million players (Assmann et al., 2009); therefore, *Travian* is persistent, asynchronous, and massively multiplayer.



Figure 2: Travian main land management screen showing construction progress in the bottom bar, resource collection in the middle, and resource storage and army on the right. (http://www.free2play.com/img/travian-screenshot-1.jpg)

Farmville (Zynga, 2009) has approximately the same level of abstraction as *Travian*: most of the information is conveyed through text and icon, the same limited narrative of both *Torn City* and *Travian*, and the same trivial virtual world. Progressively building a more productive farm is the main play activity. *Farmville*'s popularity peaked at 80 million players (Forbes, 2010) and currently still engages more than three million players (appmtr.com) playing asynchronously in a persistent world where plants grow while players are offline.



Figure 3: Farmville main farm management screen showing money and experience acquired (top), available actions (bottom right), and the farm resources and buildings constructed (middle). (https://en.wikipedia.org/wiki/FarmVille#/media/File:Farmville.png)

Why APPMMAGs?

In the case of APPMMAGs, this question can be separated into two questions. First, why define a new type of game for this study? Second, why choose APPMMAGs for this study?

APPMMAGs are an attempt to more clearly define the current muddy waters of browser games (Klimmt et al., 2009), social and social network games (Begy and Consalvo, 2011; Wohn and Lee, 2013), and casual games (Juul, 2010). All of these categories overlap with APPMMAGs, but such categories are extremely broad. Any game played in a browser or with friends would count in the first two categories. Juul (2010) certainly expounds on the notion of casual, but ends up with games that have five components: positive fiction, high usability, high interruptibility, lenient punishments for failure, and juiciness or excessive positive feedback. APPMMAGs, Torn City (Chedburn, 2004) as an example, lack several of these components. APPMMAG fiction is too varied to easily characterise, and Torn City in particular has negative, crime-based fiction. The interaction is simple (navigating a webpage), but the depth of gameplay options in Torn City makes it complex, as with many APPMMAGs. Torn City is highly interruptible and lenient, as are most APPMAGs, but it is not juicy in any sense of the word. Planting a metaphorical flag in APPMAGs is an attempt to more narrowly define a subset of these very interesting games for study.

Aside from the definitional, APPMMAGs were chosen for this study for three significant reasons. First, APPMMAGs represent an interesting space for the study of

games and game meaning-making. On the surface, APPMMAGs appear to provide very simple, low-fidelity, and limited reinforcement of the rhetorics of progression, immersion, and sociality. How, then, do players make meaning in these games? That is a question without a simple answer; thus, we have found an interesting object of study. Second, APPMMAGs are accessible objects of study as there are few technological barriers (all that is required to play is a browser), low skill/ability barriers (if players can navigate a website, they can play), and no geographic/temporal barriers (they can be played anywhere at any time). Third, I, the researcher, am an APPMMAG native, which can provide powerful insights into complex phenomena such as meaning-making.

Fortunately, other scholars have also noticed the interesting space of APPMAGS. Liszkiewicz (2010) used Roger Cailois's six criteria for defining a game as a framework to examine *Farmville* (Zynga, 2009), a popular APPMMAG. In that work, he concluded that *"Farmville* fails to satisfy each and every one." (Liszkiewicz, 2010). He also notes that, "whether we like it or not, seventy-three million people are playing Farmville: a boring, repetitive, and potentially dangerous activity that barely qualifies as a game." (Liszkiewicz, 2010). This combination of premises—that Farmville is not a game according to the theory but is popular—provides ample incentive to explore APPMMAGs more.

A fruitful discussion of large concepts such as culture, meaning, and contextualisation must begin with a discussion of terminology. The following paragraphs frame various definitions to make further discussion more understandable.

Meaning-making

This work is concerned primarily with the process of individual meaning-making: the meaning an individual derives from signs and the meaningful action taken by that same individual. This is the meaning that Weber refers to as "the historical approach" to meaning as it pertains to "actual existing meaning in the given concrete case of a particular actor" (p. 9). Weber identifies two other aspects of meaning, average meaning for a group of actors and pure type meaning. The "average" meaning to groups of actors is also of interest in this study, in the form of cultural rhetorics, although this work will not attempt to propose average meanings but will instead consider them as part of the meaning-making processes of individuals. The "pure" or ideal meaning relates to the course of action a human might take if they were perfectly rational and not subject to "errors or emotional factors" (p. 9). These "pure" meanings are beyond the scope of this inquiry. Further, Weber describes meaningful action in the following way: "We shall speak of 'action' insofar as the acting individual attaches a subjective meaning to his behaviour—be it overt or covert, omission or acquiescence." (p. 4). Finally, the process of making meaning before taking meaningful action is rationalisation or determining reasons, if any, for taking a meaningful action. Weber identifies four types of rationalisations: traditional, affectual, value-rational, and instrumental (p. 25). They may be understood as ways to select the "correct" action in any situation. Traditional rationalisation involves using tradition or habit to choose the right action. Affectual uses the current affect or "feeling state" to determine the correct action. Value-rational simply applies values ("ethical, aesthetic, religious, or other", p. 25) to choose the right action. Instrumental rationalisation is an evaluation of the expected behaviour of the world (including objects and other actors) against the desired ends of the acting actor to decide which action is right. Certainly, "right" or "correct" in this case is misleading as it implies a static truth that is unlikely to exist, but it is used here as shorthand for "the action the actor chooses to take in the end", where the rationalisation provides the reason for that action.

Meaning-making is not carried out in a vacuum, and therefore, the culture surrounding the individual meaning-maker must also be considered. With Geertz, "The concept of culture I espouse ... is essentially a semiotic one" (p. 5, 1973). Therefore, meaning-making within a cultural context includes making meaning from the signs of other cultural actors: meaning is "not in anyone's head, but embedded in the history and social practices of the group" (Gee, 1999, p. 105). This work aligns with Geertz's notion of the semiotic, which identifies that a single sign (a rapid open/close of the eyelid) can have many meanings (a blink, a burlesque wink, a conspiratorial wink, etc.). This notion of group-aware meaning-making ensures that while the process of making meaning is ultimately carried out by the individual, the context in which the meaning is made cannot be ignored.

Meaning-making, therefore, is the contextual process of recognising an opportunity for action, determining which action will be taken, and finally, the action chosen.

Why meaning-making?

The overarching goal of this enquiry is to better understand why players play and specifically why they play APPMMAGs. To that end, if players are choosing to play a game, it is likely that they find it meaningful (Shaffer et al., 2005). Therefore, if we would like to discover why players are choosing to play a specific game or group of games, it seems reasonable to try to discover how they are making meaning in their play of those games and what meaning they may be making.

Cultural rhetorics

The meaning-making at issue in this study is examined within the context of cultural rhetorics. It is used here largely in the sense utilised by Sutton-Smith:

"The word rhetoric is used here in its modern sense, as being a persuasive discourse, or an implicit narrative, wittingly or unwittingly adopted by members of a particular affiliation to persuade others of the veracity and worthwhileness of their beliefs." (1997, p. 8).

He also describes them as "largescale cultural 'ways of thought'" (p. 9). The term "cultural rhetoric" is more expressive of the specific type of rhetoric discussed in this paper, but it can be cumbersome in prose, so the shorter "rhetoric" will be used in general. These persuasive, implicit narratives provide a lens through which the meaningmaking of APPMMAG players can be examined. For instance, this paper argues that there exists a rhetoric of sociality in Canadian/USA culture. That rhetoric is complex but one of its aspects is that a culturally acceptable reason for playing video games is to make and maintain friends. Therefore, players may make meaning in APPMMAGs by trying to make friends, trying to keep friends, or trying to appear as if they are doing either of those things. It is here that we can begin to connect rhetorics, APPMMAGs, and meaning-making: "The larger play rhetorics are part of the multiple broad symbolic systems— political, religious, social, and educational—through which we construct the meaning of the cultures in which we live." (p. 9).

A boundary must also be drawn around which rhetorics are of interest for this study because rhetorics encompass a broad range of concepts. For Sutton-Smith, they are roughly divided into popular ideological rhetorics, scholarly/disciplinary rhetorics, and personal rhetorics (1997, p. 8). While the broadest (ideological) and the narrowest (personal) cannot be completely ignored/eliminated, the focus in this paper is on the middle ground of the subject area rhetoric.

These larger, cultural rhetorics are of interest, but so are the rhetorics of the game itself.

Games exhibit more traditional rhetorics such as textual and visual, and those are certainly of interest, but this study is most interested in the rhetorical aspect that is unique to interactive applications, such as games: procedural rhetoric. Bogost (2007) coined the term to explain that video games make an argument beyond the textual and visual; games persuade using their rules and the actions taken by the players. Bogost uses the logical structure of the enthymeme-where one of the premises of a logical syllogism is omitted and the listener fills it in-to express how the rules of the game leave room for the player's action to fill in the argument (p. 18). For instance, Bogost explains that the eating/health mechanism in Grand Theft Auto San Andreas (Rockstar North, 2004) is a good representation of procedural rhetoric. In that game, players must eat to maintain stamina and strength. High-fat, low quality foods from fast-food restaurants are cheap and plentiful, and the player has limited funds. However, eating too much fast food makes the player fat, which makes fighting and running (important actions in the game) much more difficult. Players, through their in-game actions, enact the rhetoric that poor people face a difficult choice between economics and health. The procedural rhetoric of a game is more than just a feature or set of features; it is the argument made by the game through the in-game actions available to the player.

Why cultural rhetorics?

Cultural rhetorics provide a way to describe trends visible in scholarship and in the broader culture and study their interactions with other phenomena. In this particular case, APPMMAG players seem to be finding meaning in games without much help from the game, at least not in the traditional sense of meaning-making in games. However, to address such an issue, a method of identifying what "traditional" means is required. Rhetorics provide a way to group large notions of how things work (i.e., that players need sociality or rich narratives) and to interrogate them to determine to what extent they are true. Rhetorics also provide a way to move beyond surface cultural interrogation. Sutton-Smith again provides direction in this area: "As the term is used here, the rhetorics of play express the way play is placed in context within broader value systems, which are assumed by the theorists of play rather than studied directly by them." (1997, p. 8). Rhetorics define "traditional" meaning-making in games, which can be used as a way to understand APPMMAG meaning-making, and using rhetorics as a theoretical lens encourages the researcher to examine the broader context of play and meaning-making, which is consistent with the contextual meaning-making described in the meaning-making section above.

However, the rhetorics cannot be simply taken at face value. These rhetorics are embedded both in the scholarship and in the design of games themselves. Therefore, while rhetorics are used to examine meaning-making in APPMMAGs, we must also interrogate the rhetorics themselves: "The issue is only whether, by becoming confused with our play theories, they [these rhetorics] set us in pursuit of false explanations or false grandiosity" and further, "It is just as possible that the rhetorics, when explicated, will be revealed to be themselves a deceptive gloss over other, far more fundamental cultural disagreements" (Sutton-Smith, 1997, p. 9).

Subversion

Sutton-Smith suggested that as soon as you define play, someone will begin playing with your definition (1997, p. 213). In other words, play will be created from the activities or states of mind that were previously identified as not-play. This notion that play is both play and not-play is important, but more important is the subtler point made by Sutton-Smith on the subversive nature of play. Play can be done within the rules, but it is also done without them, and the act of play can be culturally subversive as well. Geertz provides an example of this in his essay on Balinese cock fights. Geertz identifies several ways in which "playing" at the cock fights represents a clear subversion of traditional Balinese culture (p. 420). Balinese culture is generally gender neutral, but the cock fights are male-dominated. Balinese culture is highly controlled where cock fights are wild. Perhaps most importantly, cock fights provide an opportunity to embrace animal aspects of the self in a culture where that animal nature is so abhorrent that many file off their canine teeth to lessen their animal look (p. 420). This subversive play is included in this work for two reasons. First, subversive play is a crucial aspect of play and should be considered in any holistic study of play or games. Second, because this work examines cultural forces and their effect on meaning-making, we must also examine both the reinforcing of those forces or the bending to them as well as the resistance to them.

Why subversion?

The reason it is important to include the concept of subversion, specifically subversive play, in this study, especially at the theoretical framework level, is given best by Sutton-Smith himself. Recall that he included subversion in his warning about the

difficulties of defining play: "Any earnest definition of play has to be haunted by the possibility that playful enjoinders will render it invalid" (Sutton-Smith, p. 213). Therefore, if we intend to examine meaning-making through the lens of cultural rhetorics, we cannot only be concerned with ways in which players reinforce those rhetorics but also, ways in which they subvert them. This reinforce/subvert continuum would be of interest in any study of rhetorics, but it is particularly appropriate in a study of play rhetorics because of the ambiguous and subversive nature of play.

Rhetorics of meaningful play in APPMMAGs

This section contains a description of each rhetoric and some evidence of its existence, using Sutton-Smith's direction to determine what constitutes evidence of the existence of such a rhetoric (1997: p. 15). As adapted for this work, evidence is the existence of the rhetoric in game design and in game scholarship.

Rhetoric of progression

This is a rhetoric inherent to all games (in that one must progress to experience more of the game). It is essentially analogous to the need to turn pages in a book to find out what happens in the plot. Using procedural rhetoric, we can see that the rules of a video game encourage the player to take action to move the game forward. The rhetoric of progression provides at least part of the meaning for the in-game actions. In a Real Time Strategy (RTS) game, if a player desires to experience any content besides the death and destruction of his/her troops and buildings or the "you lose" screen, s/he must take actions in the game that enable him/her to progress. Adventure games require clicking on things and/or typing in commands to experience any of the game's content except the opening screen. Genre by genre, most games try to persuade players to progress through them. Similarly, think of common game concepts such as levels, worlds, progress bars, experience points, collectible items, increasingly powerful weapons, and unlockable super powers. All are measurements of progress or indicators of the rhetoric of progression.

Because progression is so inherent to games, finding scholarly work which contains some variation of "including progression in a game is important because …" is rare. Fortunately, there was early research into Multi-User Dungeons (MUDs)—the precursors of APPMMAGs—that clearly identified the rhetoric of progression. This rhetoric is clearest in the "achiever" player type, as described by Richard Bartle. In his work on MUDs, Bartle (1996) divided the "players who suit MUDs" into four categories: those who delight in progression (achievers), those who delight in annoying others (killers), those who delight in others (socialisers), and those who delight in testing the limits of the game world (explorers). Achievers are motivated to experience all of the content the game has to offer including finishing plots, collecting all items, and gaining all awards. Achievers represent a clear expression of the rhetoric of progression as they desire primarily to progress through the game. Bartle only ever intended that his framework be applied to MUDs, but, like any good idea, it has since been used to explore

many other types of games (Yee, 2006; Squire, 2006; Consalvo, 2007; Boelstorff, 2008; Steinkuehler, 2008). The achiever player type expresses the rhetoric of progression completely, from many perspectives. Game creators design with achievements in mind (e.g., the achievement systems built into all modern game platforms). Players seek achievements (e.g., the widespread use of those achievement systems) (Jakobsson, 2011). Bartle has led a series of scholars to examine achievement-interested players and their games.

In terms of APPMMAG research, the rhetoric of progression is very present. Begy and Consalvo (2011) include achievements in their title. Both Klimmt et al. (2009) and Wohn and Lee (2013) incorporate Nick Yee's framework which includes achievement (as it was built on Bartle's work) as one of its main tenets.

Rhetoric of immersion

The rhetoric of immersion suggests that a video game must be immersive or make one feel as if one has completely entered another world. There are many ways to achieve this end, including a fully realised virtual world with an engaging story, stunning graphics and atmospheric sounds, and an overall experience that is challenging. This rhetoric argues that players require an immersive experience to make meaning or find meaningful play in a game.

The rhetoric of immersion is most easily expressed through the work of Murray (1997). Murray's pivotal book, Hamlet on the Holodeck (1997), sets aside an entire chapter to discuss immersion in video games, identifying immersion as a powerful video game force. In that chapter, she identifies some aspects of immersion including "densely textured visual and aural environment" (p. 109), the immersion of video game narratives, and in general, the immersion of a high-fidelity or "realistic" game world. She also defines immersion beautifully:

"Immersion is a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus" (p. 98)

The notion that games must be immersive is also deeply present in books about game design. In Mark J.P. Wolf's book, a history of game development, (2008) there is an entire chapter on video game sound, which particularly references immersion: "The game's sound design reflects this choice, heightening the immersion with ambient sound that matches the game's dystopian battlefields." (Pidkameny: p. 255). In the same book, writing on the rise of the home computer, Rehak puts immersion on a key list of features that define the entire medium of video games: "immersion, interactivity, presence, and flow" (p. 195). Even the structure of that book puts sound and video on the same level as game development, game genre, video game controversy/ethics, intermediality, and the future of video games. Similarly, Rouse (2005), in his book on the theory and practice of game design, identifies players' desire to fantasise as a key drive for why players play,

and explains that immersion through a fully realised world (with graphics, sound, and story) is the way to meet that need (2005: p. 7), and he later states it directly "Players expect to be immersed" (p. 12). Bogost too draws a line directly to the importance of a true-to-life world for maximum "vividness" and immersion (2007, p. 34). In addition to a fully realised world, the rhetoric of immersion includes the notion that games must be difficult.

The idea that a game must be difficult and that this very difficulty is what creates an immersive experience is likely rooted in the theory of flow. Mihalyi Csikszentmihalyi's flow theory suggests that people are happy (or in his words have optimal experiences) when their ability matches the difficulty of their task, and they are given the appropriate feedback in a timely manner (1990). The periods of optimal experience are characterised by losing track of time as one is so engrossed, or immersed, in the activity that they lose time. This theory of optimal experience is a powerful and compelling one when applied to games. Salen and Zimmerman (2004: p. 336) provide a great example of how flow theory is viewed and used in games and game design in their entire section devoted to game flow and including the ubiquitous flow channel graph. Independently, James Paul Gee, in studying the educative power of games, drew similar conclusions about difficulty in games: "a good game feels highly challenging" (2004: p. 65). In contrast to the rhetorics of the immersive world and even the very embedded rhetoric of progression, the rhetoric of difficulty is everywhere (Rouse, 2004: p. 2; Hoffman and Novak, 2009: p. 25; McGonigal, 2011: p. 22; Juul, 2007: p. 55).

In the direct field of APPMMAGs, the rhetoric of immersion is a challenge. Because APPMMAGS largely forgo the graphics, story, sound, and difficulty (as part of their definition), they represent an extremely interesting area to further explore the rhetoric of immersion.

Rhetoric of sociality

The rhetoric of sociality posits that games must be social, providing opportunities to create and maintain social networks. The base assumption that people want to play meaningfully with other people is, like the rhetoric of progression, inherent in many games. This rhetoric also deeply affects most game research done in the social sciences.

There are many examples of how sociality is implicitly included in games, but without experiencing several games within a genre over time, these trends can be hard to see. Personally, as a long time MMORPG player, I can see the social features and social requirements in MMORPGs. In *World of Warcraft* (Blizzard, 2004) for instance, there are portions of the game that may only be experienced with other players and many in-game tasks are made easier by working with others. Gaining experience is a major goal in the game (which reinforces the rhetoric of progression), and players can gain experience much faster if they work in groups. Not only is there a "safety in numbers" benefit, the game actually rewards the player further by providing an experience bonus just for working in a group (Liszkiewicz shows something similar in *Farmville*, 2010). If the reader has not played this game, the truth of this situation is hard to prove (although in this case

there is some academic discussion of this phenomenon: Koivisto, 2003). Therefore, game design histories and manuals will be used to provide evidence of the rhetoric of sociality.

Rouse (2004) again leads the way with another useful section heading in his chapter on what players want: "Players Want to Socialize". He goes on to discuss the notion that all non-computer games are social, most single-player computer games are still played very socially, and finally, that multiplayer games are a powerful and growing force (as of 2004). He closes his discussion of multiplayer games with "the biggest advantage of these multiplayer games is that they transform computer games into truly social experiences, which is one of the largest motivating factors for people to play games." (2004). Salen and Zimmerman (2004) devote an entire chapter to social play, as does Schell (2008). Fullerton (2008) begins her book with the importance of the social in traditional games. Costikyan (2002) suggests that MUDs and RPGs are primarily social games. Crawford (1984) also identifies the social as a prime drive for playing games. In his book, Wolf (2008) uses "Video games—Social aspects" as the first of two Library of Congress (LC) Subject Headings (the other being "Video games—History"). This means that the author and publisher felt that social aspects represent an important way to identify and categorise the content of the book. These are only a selection of game design books, but they all feature the rhetoric of sociality prominently. This rhetoric also exists in scholarly inquiries focussed on games.

Evidence of the rhetoric of sociality is just as easy to find in research as it was in game design. As MMORPGs became more popular and a more obvious cultural force, a large number of game ethnographies appeared to attempt to explain the phenomenon. These kinds of works tend to place sociality above all other aspects important to game studies (Turkle, 1995; Taylor, 2005; Boellstorff, 2008; Pearce, 2009; Nardi, 2010), and that same group created a textbook for virtual world ethnographies which also foregrounded game sociality (Boellstorff et al., 2012). Huizinga's book, Homo Ludens (1944), positions games and play as the seed of culture (by connecting games with ritual). Caillois (1961) positions games as essential to sociality. Juul (2010) devotes a chapter of his book on casual games (which are very closely related to APPMMAGs) to sociality, as does McGonigal (2011). Bartle (1996) also identifies two groups that are primarily interested in sociality: killers and socialisers. Bartle (1996) identifies the difference as being that socialisers are interested in interacting with other players whereas killers are interested in acting on other players; however, both groups are primarily focussed on other players. Yee (2006) includes both categories in his work as well and, in fact, calls for even more research on sociality. Using bibliographic data again, currently there are three hundred and forty-four (344) books in WorldCat's database with the LC Subject heading "Video games—social aspects".

The rhetoric of sociality is also prevalent in the area of APPMMAG studies. Klimmt et al. (2009) include social elements in all four key dimensions of browser-game appeal. Milolidakis et al. (2009) place sociality alone on the same level of importance as all other aspects of video games. Assmann et al. (2009) and Koivisto (2003) focus on the sociality of community building. Wohn and Lee (2014) position APPMMAGs as social network games from the beginning. Begy and Consalvo (2011) include social aspects as part of their seven-feature play motivation study.

Why these rhetorics for studying APPMMAG meaning-making?

These three rhetorics are clearly present in existing games and game research and are particularly interesting in the field of APPMMAGs. Both the rhetoric of progression and the rhetoric of sociality appear to be dominant, reinforced rhetorics of APPMMAGs. My own anecdotal experience in playing and designing APPMMAGs for the last ten years suggests that there is also some subversion of these rhetorics happening. The rhetoric of immersion represents an even clearer opportunity for subversion and expansion of the conversation on the nature of immersion. Certainly, there may be other rhetorics from other disciplines or that come out of this project that may be of more interest, but given the breadth of research and my own experiences, these three were selected as a beginning.

More broadly, rhetorics provide an important, and novel, way of exploring APPMMAG meaning-making. Current work on APPMMAGs does not generally push very far into the cultural context of players and their meaning-making. Cultural rhetorics allow researchers to examine APPMMAG meaning-making more deeply. For instance, players report playing Farmville for social reasons (Balnaves et al., 2012). On the surface, there is little reason to question that; after all, many researchers and game makers call the whole genre of APPMMAG games "social games". However, the power of a cultural rhetoric to persuade people to act or appear to act in a certain way, to be socially motivated in this case, must be considered. Using the rhetoric of sociality as a lens for studying meaningmaking, allows, and encourages, the researcher to ask further questions such as, "When you are not interacting with or making friends in Farmville are you still playing Farmville, and if so, what in-game actions are you taking and why?" The notion of subverting cultural rhetorics is also useful in this case and encourages questions such as, "Farmville provides many social features. Do you prefer to use those over other methods of social interaction like texting or emailing? If so, why?" The arguments about meaning-making made by the games themselves and the research about games affect player meaningmaking and player reports of meaning-making, and therefore, it is important to apply these rhetorics to the APPMMAG meaning-making context.

Testing the lens

It is useful, when developing a theoretical framework, to employ the framework using an example. This approach is useful as an example of the utility of a framework and to generate research questions, but it is limited. Without more data, it is difficult to draw firm conclusions or make interesting claims. This section discusses a sample APPMMAG, *Torn City*, and the prose description of play motivations and experiences of a player. This player is in line with Bartle's (1996) "achiever" player type discussed earlier in this article. The player is a Caucasian male, 37 years old, programmer, interface designer, doctoral student who has been playing and designing video games since the age of eight. He plays

a wide variety of video and traditional games, including both single-player and multiplayer games. He plays on multiple devices including phone, tablet, and laptop and at the kitchen table or on the floor, among other locations in his urban, single-family home and in the homes of friends and family. He lives with his partner, his infant son, and his dog. In addition to games, he also enjoys reading nonfiction in many areas and fiction in the fantasy/science fiction genre. He also enjoys various types of movies and television shows, and watches them alone as well as in groups. He was, in his youth, a musician of some note, and he still enjoys singing and playing the guitar and piano for his family.

Torn City or TC is an APPMMAG developed by Joe Chedburn, a UK-based game developer. While it is trying to expand beyond its crime-first roots to describe itself as a "gritty" place where "only the sharpest survive", the procedural rhetoric of the game still encourages one toward criminal behaviour, so much so that that aspect is still included in game descriptions: "To earn money and increase your status you'll need to get your hands dirty, commit crimes and attack other players" (torn.com).

The following is a first-person account of meaning-making, play, and strategy. Because it is an example, the player description above and the following description of how meaning is made in *Torn City* are evocative of and interconnected with Geertz's ethnographic method of thick description (1973: p. 3) without taking the space and time to fully describe both player and play thickly:

Play of TC is focussed around time management. The goal is to make maximum progress without a) running to the game on a schedule, b) logging on constantly, or c) paying real money. Therefore, time spent playing the game is all about making the most efficient use of time and in-game energy. Playing more traditional MMORPGs takes too much time.

There are many mechanics in TC, but one of the main ones is fighting, both other players and non-player characters (NPCs). To ensure that their character is not constantly being robbed and put in the hospital, players must train their avatars so that they can properly defend themselves. Training is done, appropriately, at gyms. There are a variety of gyms, which are unlocked slowly through use (e.g. 200 trains at Woody's Workout gym unlocks Beach Bods gym), and they generally provide more statincrease per unit of energy as the player progresses through the gym-unlocking minigame. There is, however, a major divergence. Most players choose the drug-assisted training program, and they focus on one-or two stats. There is a drug, Xanax, that provides extra energy which can be used for extra training sessions. With little risk of overdosing (which causes lost time and money), a player can safely take roughly two Xanax per day for an additional 720 to 960 energy. Depending on how active the player is, that can easily double or triple their daily training. There are some costs however. First, each Xanax costs about \$1 million, which is one day's pay for a high-level player. Second, to reduce the risk of overdosing, players must routinely travel to Switzerland to rehab (opinions vary, but most players go once per week). Third, overdosing removes all energy and happiness, which cost both money and time to recover. In addition to Xanax-based training, most players also choose a statistic or two to focus on, and use all available energy to increase them. This tendency is made clear by the availability of two, high-level gyms that focus on Defence and Dexterity (Balboas Gym) and Strength and Speed (Frontline Fitness) where the other two statistics cannot even be trained. A subset of players choose a divergent path of progression. There is a single drug-free gym that provides higher gains than the regular gyms where drug-use is allowed. Because drug-use is rampant in all parts of the game, including training, very few players can access the drug-free gym. A further subset elects to train all battle statistics equally. The reasoning for this is the simple rock-paper-scissors truth of the battle mechanic: defence beats strength, speed beats defence, dexterity beats speed, and strength beats dexterity. High strength means high damage, and a player can kill other avatars before they have a chance to do much damage to him/her. High defence reduces damage taken from high strength attacks. High speed can overcome high defence by overwhelming the defence with many hits. High dexterity overcomes high speed to allow avatars to dodge more effectively, and finally, high strength defeats high dexterity because only one hit is needed, and all hits cannot be dodged. When given the option to train all statistics equally, it makes the most sense to train more slowly (but without the risks of overdosing) and more balanced (to ensure no large weaknesses). First, it carries no risk of negative outcomes or punishments. If play time is limited, that time should not be spent dealing with punishments. Second, the benefits of the drug-based training are greatest for very active players. With limited play time, keeping on top of rehab schedules, flight schedules, and drug cool downs is far too much work. Third, the design of the drug-free, equal-stat training system does not encourage risky behaviour. The drug-based method entices players to greater risks. The longer players wait between each rehab trip, the less total training time they lose to rehab trips, so the game entices them to wait just a little longer each time. Overdosing has a similar effect to losing for a problem gambler: they will gamble again but they will just be a bit more careful next time. The drug-free training system avoids the challenges calculating when the best time to rehab is. With this system, the most efficient method of training is to log on and train. There are no other calculations to do.

As previously stated, the main reason to train battle stats is, not surprisingly, to battle, and since the majority of in-game time is spent efficiently training battle stats, one might reason that engaging in battle is also an important aspect of play. Surprisingly, it is not. To explain why, the world of TC needs to be described further.

In traditional MMORPGs, there is a separation between fighting and danger involving other humans (Player versus Player or PvP) and fighting/danger that originates from the game itself (Player versus Environment or PvE). Each MMORPG has its own way of dealing with this, but in general, players are given the choice whether to live and play in a place that allows PvP or not. In games like TC, that separation tends not to exist. In TC, for instance, there is only one place to play and that place is PvP at all times. There are moments of respite (while traveling, in prison, or in hospital), but in general, a TC avatar can be attacked by other players at any time. That fear of being attacked at any time affects the way people play. Coupled with this fear is the problem of information. In general, one player cannot know the battle stats of another. Over the years, ways of guessing stats have been added to the game (public player activity stats from which much can be implied and different ways of "spying" someone else's battle stats), but it is never a complete picture. Perhaps the target player has taken a temporary battle stat booster or has an unusually powerful weapon, etc. This creates a situation where attacking someone represents a risk. If the attack fails, the attacking player has unequivocally provided a valuable piece of information: they are weaker than the defender. This information can be used to constantly attack an avatar and keep it in the hospital, to win bounties put on it, to beat it in faction conflicts, to gain experience and money, and to pass that information on to stronger friends that they might do the same. Certainly, one player knowing they are stronger than another is not a guarantee that bad things will happen, but in general, it is best avoided. There is a third aspect to

this situation that further complicates it, and that is the choice to remain in-game drugfree and to spend no real-world money on the game. These two choices result in players advancing through the game much more slowly in terms of battle stats. This means that to a casual observer these "drug-/money-free players" appear powerful because their characters are old, but they are weak for their age as they have not used popular methods (and therefore the popular pace) to increase avatar power. Because of the lack of information, it is likely that many players feel like they are a little behind, regardless of their play styles. Combining these three things—the possibility of attack at any time, the lack of information on enemies, and the problem of being weaker than appearance suggests or feeling weaker than the norm—results in a tendency to not attack others.

Discussion

This section applies the rhetorics of APPMMAG play framework to the account of player meaning-making described in the previous section. Without more data, it is difficult to be definitive in answering questions, but included here is an example analysis of the sample meaning-making account using the theoretical lens described above. Potential research questions generated from the analysis are also included. The research questions are included as they both summarise contentions revealed by the analysis and generate directions for further inquiry.

The rhetoric of progression appears to be clearly reinforced in this account of playing *Torn City*. The player is concerned with filling the progress bars that represent progression in training gyms and progression in battle statistics. It is entirely possible that a non-achiever type would provide a strong subversive voice against the rhetoric of progression. However, it appears that for some players, meaning can be made simply using a progress bar (a conclusion supported by previous work on the subject, Bouchard, 2010).

RQ1: To what extent and in what ways is the rhetoric of progression at play in APPMMAG meaning-making?

The interaction with the rhetoric of immersion is far more complicated in this account. To begin with, the choice to play *Torn City* in the first place likely represents an engagement with the rhetoric of immersion. The move away from "traditional MMORPGs" to *Torn City* is a subversion of the rhetoric of immersion. On the surface, the only difference between MMORPGs and APPMAGs is the immersive world in MMORPGs, but the difference is more complex than that, especially considering the rhetoric of immersion. For instance, the amount of real-world time required to play *Torn City* is largely determined by the player, and the game does not act to entice the player to play more. MMORPGs, in contrast, are constantly reinforcing the rhetoric of immersion by trying to draw players to stay in the game and to come back as quickly as possible. In general, MMORPGs are designed to leave players feeling like they will miss something if they leave and that they have missed something whenever they have been absent from

the game. This immersive draw is accomplished by having something exciting (or "juicy", Juul, 2010) happen every few minutes, so players are drawn to play another few minutes ad infinitum. APPMMAGs do not, in general, subscribe to this model. In *Torn City* for instance, once a player's "turn" has been taken (all of their in-game energy is used) there are simply no more actions to take until the next available turn, which takes about five hours, and because the progression of the game is so slow, players quickly stop logging in every five hours and simply log in once or twice per day with little negative consequence. In fact, players are considered "active" for in-game rewards if they login once daily.

RQ2: To what extent and in what ways is the rhetoric of immersion at play in APPMMAG meaning-making?

The narrative aspect of the rhetoric of immersion also makes for an interesting lens with which to view this meaning making account and *Torn City*. Narrative immersion appears totally absent and subverted. For instance, while there are brief textual descriptions of in-game actions, the player account above mentions nothing at all about the story of the game or even the loosely described crime-based game world. These things were omitted from the meaning-making description because the player does not use them for meaning-making, despite there being strong scholarly support for their importance (Juul, 2005). Without further data, it is difficult to prove that the narrative is being used to make meaning in this context, but that simply means that its character is at this point unknown.

RQ2.1: What is the role of narrative in APPMMAG meaning-making?

Similar to the apparent lack of narrative meaning, there is no concern about the difficulty of the game or the satisfaction of meeting challenges in the meaning-making account. In contrast, Csikszentmihalyi (1990) suggests that people value both difficulty and the satisfaction of meeting challenges in their activities. In addition, there is an interesting interaction between the rhetoric of immersion through difficulty and the rhetoric of progression. A brief examination of the above account of training shows that whereas there is progression, there is no difficulty. If we assume (as the rhetorics discussed previously suggest that we should) that difficulty and progression are important parts of video games, it reasonably follows that progression should therefore be difficult. *Torn City* and APPMMAGs in general represent a very interesting subversion of that situation.

RQ2.2: What is the role of progression free from difficulty in APPMMAG meaningmaking?

Turning from progression and immersion meaning-making, the rhetoric of sociality exhibited in the player meaning-making account is also complex. It appears more akin to Taylor's instrumental players (2006) or Bakioglu's griefers (2009) in that there is no clear friend-making or community building that seems so prominent in the works supporting the rhetoric of sociality. At this stage, it could be said that the achievement-focussed account above is subverting the rhetoric of sociality by largely ignoring other players.

RQ3: To what extent and in what ways is the rhetoric of sociality at play in APPMMAG meaning-making?

The situation is much more complex. While the account has no description of chatting with friends or organising a group to accomplish some task, the actions and existence of other players does appear to affect the decision-making of this player. For instance, there appears to be some fear that other players will discover a weakness and descend like jackals. This implies that other players, even if they are not directly communicated with, may act as context for meaningful play. McGonigal has already suggested that this might be the case with her concept of "playing alone together" (2011, p. 89). While the rhetoric of sociality appears to be largely subverted in this account, it is possible that players draw meaning from the social context provided by other players without having to directly interact with others on a regular basis.

RQ3.1: What is the role of low-fidelity sociality in APPMMAG meaning-making?

The theoretical lens proposed in this paper was used effectively to analyze the above meaning-making account. Analysis created a rich discussion of the complex subject of meaning-making and generated interesting questions for future work.

Conclusion

The purpose of this article was to explore a novel lens for examining meaning-making in APPMMAGs using cultural rhetorics of play. That purpose required some background explanation, including working definitions of APPMMAGs, meaning-making, and cultural rhetorics. The lens was then applied to an account of meaning-making in an APPMMAG. In the Discussion section, the player account was examined both in terms of how the selected cultural rhetorics were reinforced and subverted. The rhetoric of progression was reinforced through the meaning-making of the slow, simple motion of avatar improvement and was subverted by the problem of progression without difficulty. The

rhetoric of immersion was largely subverted in APPMMAG meaning-making through antiimmersion game features, but it might be reinforced by the unknown role of playerimagined narrative and goal-setting. The rhetoric of sociality was also mostly subverted by ignoring other players but may be reinforced through some kind of low-level social context.

In the end, the lens successfully troubled the surface of the cultural rhetorics that were discussed. Rhetorics that seemed initially quite straightforward and objective have now been revealed to be complex and likely subjective. Similarly, the surface of APPMMAGs was disturbed to reveal that they too are more complex than an initial review might suggest. They appear to be a kind of simple MMORPG or a modern MUD, but in fact, they are something else entirely.

Certainly, the rhetorics of play described here can be gainfully employed to examine other genres of games and even specific games. It is likely that those studies will reveal similar situations: that cultural rhetorics are often being reinforced and subverted at the same time, often by the same player. In trying to understand meaning-making generally and specifically in games, this method of exploring play rhetorics could be quite useful. The results of examining APPMMAGs are somewhat harder to generalise. It is possible that the features that APPMMAGs have in common with other games may be used to reveal things about those other games. For instance, the rhetoric of progression seems similar between APPMMAGs and MMORPGs, so therefore it might be that MMORPG players make meaning in similar ways to APPMMAG players, but at this stage, these types of connections are not clearly made.

Future work

The most obvious next step is to match the research questions asked above with a method appropriate for exploring meaning-making. In the next phase of this research, a combination of ethnographic methods will be used to explore APPMMAG meaning-making using the rhetorics of progression, immersion, and sociality. With more data, interesting conclusions may be drawn about APPMMAG play and meaning-making along with more general conclusions about meaningful play and game design.

REFERENCES

Anon, 2009. 21-year-old computer geek makes £1m with online game. *The Telegraph*. Available at: http://www.telegraph.co.uk/technology/news/6264082/21-year-oldcomputer-geek-makes-1m-with-online-game.html [Accessed July 15, 2015].

Anon, 2015. Farmville: last year stats. *AppMtr*. Available at:

http://www.appmtr.com/facebook/app/102452128776-farmville/last-year-stats [Accessed July 15, 2015].

Anon, Torn City homepage. Available at: www.torn.com.

Anon, Torn City wiki. Available at: http://www.torn.com/wiki.

- Anon, Video games--social aspects LC subject heading. *WorldCat*. Available at: http://ualberta.worldcat.org/search?q=su%3AVideo+games+Social+aspects.&qt=hot _subject#%2528x0%253Abook%2Bx4%253Aprintbook%2529format [Accessed July 15, 2015c].
- Assmann, J., Sandner, P. & Ahrens, S., 2009. Users' Influence on the Success of Online Communities. In 2009 42nd Hawaii International Conference on System Sciences. IEEE, pp. 1–10. Available at:

http://ieeexplore.ieee.org/lpdocs/epico3/wrapper.htm?arnumber=4755639 [Accessed July 15, 2015].

- Bakioglu, B., 2009. Spectacular interventions of Second Life: Goon culture, griefing, and disruption in virtual spaces. *Journal of Virtual Worlds Research*, 1(3).
- Balnaves, M., Wilson, M. & Leaver, T., 2012. Entering Farmville: Finding Value in Social Games. In C. Anyanwu, K. Green, & J. Sykes, eds. Communicating Change and Changing Communication in the 21st Century. Adelaide, Australia: Australian and New Zealand Communication Association, pp. 1–12.
- Bartle, R.A., 1996. Hearts, Clubs, Diamonds, Spades: Players who suit MUDs. *MUD.co.uk*. Available at: http://www.mud.co.uk/richard/hcds.htm [Accessed July 15, 2015].
- Begy, J. & Consalvo, M., 2011. Achievements, Motivations and Rewards in Faunasphere. *Game Studies*, 11(1).
- Blizzard Entertainment, 2004. World of Warcraft.
- Boellstorff, T., 2008. Coming of age in second life: An anthropologist explores the virtually human, Princeton, NJ: Princeton University Press.
- Boellstorff, T. et al., 2012. Ethnography and virtual worlds: a handbook of method, Princeton, NJ: Princeton University Press.
- Bogost, I., 2007. Persuasive Games: The Expressive Power of Videogames, Cambridge, MA: MIT Press.
- Bouchard, M., 2010. The null game: Feature-specific player enjoyment in Massively Multiplayer Online Role Playing Games. University of Alberta. Available at: http://gradworks.umi.com/MR/60/MR60541.html [Accessed July 15, 2015].
- Caillois, R., 1961. Man, play, and games, New York: The Free Press.
- Chedburn, J., 2004. Torn City. Available at: www.torn.com.
- Chiang, O., 2010. FarmVille Players Down 25% Since Peak, Now Below 60 Million. Forbes. Available at: http://www.forbes.com/sites/oliverchiang/2010/10/15/farmville-playersdown-25-since-peak-now-below-60-million [Accessed July 15, 2015].
- Costikyan, G., 2002. I Have No Words & I Must Design: Toward a Critical Vocabulary for Games. Available at: http://www.costik.com/nowords.html [Accessed July 15, 2015].
- Crawford, C., 1984. The art of computer game design, Berkeley, CA: McGraw-Hill.
- Csikszentmihalyi, M., 1990. Flow: The Psychology of Optimal Experience, New York: Harper and Row.
- Fullerton, T., 2008. THAT'S ENTERTAINMENT: Playcentric design. *interactions*, 15(2), p.42. Available at: http://portal.acm.org/citation.cfm?doid=1340961.1340971 [Accessed July 15, 2015].

Journal of Comparative Research in Anthropology and Sociology, Volume 6, Number 1, Summer 2015

- Gee, J.P., 1999. An Introduction to Discourse Analysis, New York, New York, USA: Routledge.
- Geertz, C., 1973. The interpretation of cultures, New York: Basic Books.
- Hoffman, D.L. & Novak, T.P., 2009. Flow Online: Lessons Learned and Future Prospects. Journal of Interactive Marketing, 23(1), pp.23–34.
- Huizinga, J., 1944. Homo Ludens, Boston: Beacon Press.
- Jakobsson, M., 2011. The achievement machine: Understanding Xbox 360 achievements in gaming practices. *Game Studies*, 11(1), pp.1–22.
- Juul, J., 2010. A Casual Revolution: Reinventing Video Games and Their Players, Cambridge, MA: MIT Press.
- Juul, J., 2005. Half-Real: Video Games between Real Rules and Fictional Worlds, Cambridge, MA: MIT Press.
- Klimmt, C., Schmid, H. & Orthmann, J., 2009. Exploring the Enjoyment of Playing Browser Games. CyberPsychology & Behaviour, 12(2), pp.231–234.
- Koivisto, E.M.I., 2003. Supporting communities in massively multiplayer online roleplaying games by game design. Available at:

http://www.digra.org/dl/display_html?chid=http://www.digra.org/dl/db/05150.48442

- Liszkiewicz, A.J.P., 2010. Cultivated Play: Farmville. *media* commons. Available at: http://mediacommons.futureofthebook.org/content/cultivated-play-farmville [Accessed October 23, 2013].
- McGonigal, J., 2011. Reality is broken: Why games make us better and how they can change the world, New York: The Penguin Press.
- Milolidakis, G., Kimble, C. & Akoumianakis, D., 2009. A Practice-Based Analysis of an Online Strategy Game. Leveraging Knowledge for Innovation in Collaborative Networks IFIP Advances in Information and Communication Technology, 307, pp.433– 440.
- Murray, J.H., 1997. Hamlet on the Holodeck: The Future of Narrative in Cyberspace, New York: The Free Press.
- Nardi, B.A., 2010. My Life as a Night Elf Priest: An Anthropological Account of World of Warcraft, Ann Arbor, MI: University of Michigan Press.
- Pearce, C., 2004. Towards a Game Theory of Game. In N. Wardrip-Fruin & P. Harrigan, eds. First Person: New Media as Story, Performance and Game. Cambridge: MIT Press.
- Pidkameny, E., 2008. Sound in Video Games. In M. J. P. Wolf, ed. The Video Game Explosion: A history from Pong to PlayStation and beyond. Westport, CT: Greenwood Press, pp. 251–258.
- Rehak, B., 2008. The Rise of the Home Computer. In M. J. P. Wolf, ed. The Video Game Explosion: A history from Pong to PlayStation and beyond. Westport, CT: Greenwood Press, pp. 81–89.

Rockstar North, 2004. Grand Theft Auto: San Andreas.

Rouse, R.I., 2005. Game design: Theory & practice, Plano, TX: Wordware Publishing, Inc.

Salen, K. & Zimmerman, E., 2004. Rules of Play: Game Design Fundamentals, Cambridge, MA: MIT Press.

- Schell, J., 2008. The Art of Game Design: A Book of Lenses, Burlington, MA: Morgan Kaufmann.
- Shaffer, D.W. et al., 2005. Video games and the future of learning. Phi Delta Kappan, 87(2), pp.104–111.
- Sutton-Smith, B., 1997. The Ambiguity of Play, Cambridge, MA: Harvard University Press.
- Taylor, T.L., 2006a. Does WoW change everything?: How a PvP server, multinational player base, and surveillance mod scene caused me pause. *Games and Culture*, 1(4), pp.318–337.
- Taylor, T.L., 2006b. Play Between Worlds: Exploring online game culture, Cambridge, MA: MIT Press.
- Travian Games, 2004. Travian. Available at: http://www.traviangames.com/.
- Turkle, S., 1995. Life on screen: Identity in the age of the internet, New York: Simon & Schuster.
- Weber, M., 1978. Economy and Society: An Outline of Interpretive Sociology G. Roth & C. Wittich, eds., Berkeley and Los Angeles, California: University of California Press.
- Wohn, D.Y. & Lee, Y.-H., 2013. Players of Facebook games and how they play. *Entertainment Computing*, 4(3), pp.171–178.
- Wolf, M.J.P. ed., 2008. The Video Game Explosion: A history from Pong to PlayStation and beyond, Westport, CT: Greenwood Press.
- Yee, N., 2006. Motivations for Play in Online Games. CyberPsychology & Behaviour, 9(6), pp.772–775.

Zynga, 2009. FarmVille.

Matt Bouchard is a PhD Student at the Faculty of Information, University of Toronto. His research interests include video games (play, meaning, design), visualization, interaction design, and implementation process/pedagogy.