5 Communication in video games: from players to player communities

Abstract: Digital games research and communication studies intertwine at several points. Gaming, and play in general, is a social activity. For those motivated to participate, digital gaming and online game worlds offer near endless ways for self-expression and socializing. This chapter looks at questions of social interaction within the realm of online multiplayer games. The topics introduced proceed from motivations of individual players to the social dynamics of player groups and communities to exploring games as communication systems and platforms. The way players utilize the affordances provided to them in online games and game-like virtual worlds vary. What is typical is that players often self-organize into what can be called collaborative groups or communities. At the heart of these groups are emergent negotiations of shared norms and rules, a shared purpose. In combination with game mechanics, these negotiations create a rich window of opportunity for creative human interaction. Throughout the chapter examples related to theoretical issues, methodology, and future research directions are provided.

Keywords: digital games, game studies, computer-mediated communication, multiplayer communities, video games

Alongside the popularization and domestication of information technologies from the 1960s onward there is a clear trend in the increasing popularity of gaming. Developing computers and computer networks opened the door to digital gaming, which has evolved from its original niche to a global business and rich soil for contemporary culture. For example, virtual (game) worlds developed from the early Multiple User Domain (MUD) and its contemporaries during the 1970s and 1980s, through Ultima Online and Everquest in the 1990s into the different versions of World of Warcraft and Eve Online of the 2000s, captured the imagination of tens of millions of players worldwide (Van Geel 2012; see also Bartle 2004; Koster 2002). As the impact of games and the cultures that surround them gained momentum, scholars from various fields of academia started to show interest in ‘game studies’. In the 1990s, there emerged a strong body of academic literature on MUDs, MOOs (Multi[user domain] object oriented), and various early versions of virtual worlds and communities. But it was in the 2000s that the field truly gained maturity. For example, special interest groups focused on digital games research emerged within larger associations, such as European Communication Research and Education Association (ECREA) and International Communication Association (ICA). The decade also saw the birth of an international scientific association con-
centrating specifically on game studies, the Digital Games Research Association (DiGRA), as well as a plethora of publications dedicated to the topic.

Game studies, also known as digital games research, is a decidedly multi-disciplinary field of inquiry. A survey in 2012 of 544 academics identifying themselves as being connected to the field shows that communication sciences (labeled in the survey as communication studies, media studies, and information studies) comprise approximately a quarter of the body of researchers (Mäyrä et al. 2013). This is an area of interest, in which communication sciences pair up with disciplines like psychology and educational sciences in search for answers to interesting questions, for example: how player communities can operate as communities of practice in developing expertise (Chen 2012); whether and how playing games could have a short or long term effect on users (Ferguson et al. 2013); or how journalism and games can benefit from each other in the form of newsgames (Bogost et al. 2010).

Research related to gamification, i.e. the use of game design elements in non-game contexts (Deterding et al. 2011), is a good example of a research topic where a multidisciplinary approach is useful. Combining theories of motivation to those of learning and instruction (for a review, see Kapp 2012), gamification provides an interesting focal point for communication scholars as well.

The field of game studies in general is much too broad to be covered fully in this chapter. Järvinen (2003) presented a basic division of three distinct, but often overlapping approaches into the field. First, games can be approached from the point-of-view of the games themselves, where the focus is on the rules and mechanics within the game. Secondly, there is a significant body of research concerning the interaction between a game and its player, for example focusing on user experience or questions of user interface design. Thirdly, an approach favored by communication sciences’ studies has focused on the rich cultures surrounding games and play, including player-to-player interaction. This chapter concentrates of this third approach.

This chapter will revolve around three main topics. First, we will take a look at individual players, their motivations and viewpoints. What do individual users seek from games, how do they utilize the affordances offered to them? Second, we will concentrate on the social dynamics of player communities and groups. What functions do these groups fulfill, what kind of communication takes place within? Third, games as communication systems and platforms are explored. What affordances are there for players to use, and what kind of new directions and possibilities for studying communication might games offer? Throughout the chapter provides examples related to theoretical issues, methodology and future research directions.

1 Players of games

Basic questions such as who plays video games, what motivates them, and what do they do within games have intrigued scholars over the years. Over the next few paragraphs, we look at each of these questions in turn.
Individuals inhabiting contemporary virtual worlds and game spaces are often referred to as *players* or *gamers*. Some have argued that since contemporary online game worlds may not truly fit into classic definitions of games, because of their infinite existence, the term *user* might fit better (Filiciak 2006). This chapter uses the two terms interchangeably.

Looking at the broad trends, while video gaming may have been traditionally seen as a realm for adolescent males, the picture of a typical player in the 2010s is much harder to portray, for as Bryce et al. (2006) indicate most adolescent girls play digital games. At the same time the age profile of players has continued to become more diverse, up to a point that you can say that people of all ages play digital games. Currently, the typical average age of players of digital games is somewhere between 30–35 years (Entertainment Software Association 2014). Of course the profile of the average gamer is dependent on the genre or game in question.

Within the widely studied genre of MMOs (Massively Multiplayer Online Games), which includes games such as *World of Warcraft* and *Eve Online*, a study combining survey data with unobtrusively collected game-based behavioral data showed that players of the MMO *EverQuest 2* were on average just over 30 years old (Williams et al. 2008). The same study showed that approximately one in five players was female, and came from relatively wealthy backgrounds and were more educated than the general population in the US (Williams et al. 2008). While the results certainly cannot be generalized to global audiences or across game genres, *EverQuest 2* represents a typical example of the MMO market, i.e. fantasy role-playing. Unfortunately, studies that rely on more than just self-reported data are rare. Indeed, there is a general lack of reliable data on player demographics across genres and beyond the largest markets.

With a wide variety of players, it is only to be expected that the motivations driving gaming are as varied. In a seminal paper on player types in online multiplayer games, Richard Bartle (1996) outlined, and later refined (Bartle, 2004), a typology consisting of four different orientations towards gaming. The typology categorized players as belonging to one of four groups: Killers, Achievers, Socializers, and Explorers. The motivations of these player types could be further explained by their relationship towards two behavioral dimensions. The first of these concentrated on the interaction between the player and the game (elements), and examined whether the player acted on them or interacted with them. The second behavioral dimension concerns whether the player focused more on other players or on the virtual world. In this framework, the Killers’ emphasis is on acting on players (i.e. killing their characters), the Achievers’ goal is to act on the game world (i.e. to ‘win’ over the course of the game), Socializers aim to interact with other players, and Explorers want to interact with the game world (i.e. by exploring its boundaries and trying out new things).

Since Bartle’s typology, there have been several attempts at solving the question of player motivation or orientation, specifically in the context of online multi-
player games. Using factor analysis, Yee (2007) proposed three non-exclusive motivational factors, each with their own set of subcomponents. These three broad factors were labeled achievement, being social, and experiencing immersion. Players who value achievement are interested in competition, and seek mastery of the game. Players who value sociability look for opportunities to interact with other players, and are interested in building relationships with other players. Finally, players who seek immersion want to become a part of the story, for example through role-playing, or use the game as a means of escapism. This classification has been supported by later research (Williams et al. 2008).

Studies exploring player motivation have experienced a gradual move towards more widely validated and generalizeable explanations. For example, self-reported data have been compared to actual in-game behavior data in the form of behavioral validation, strengthening the assumption that there exist associations between players’ motives and their in-game actions (Billieux et al. 2013). Also, validating scales across (national) cultures and game genres has been attempted (Kahn et al. 2013). While there exists a great deal of variation across models, certain elements come up regularly enough to increase their general validity. For example, the archetypes of socializer and competitor appear in several forms across studies. Also factors such as escapism, immersion, and interest in exploring as much as possible of the game’s content or game world often occur. Underlying motivations may also change through time, for as Kahn et al. (2013) note an increasing number of players in the 2010s are approaching games from a utilitarian viewpoint, as they appreciate the possibilities for cultivating transferable skills or aim to develop their intelligence in general.

When trying to understand player behavior and experience, it is worthwhile to remember that there are often no simple answers to be found even when one is looking at a single player. For example, studies on player motivation typically simplify matters by focusing on the so-called main character a player has, or on a single dominating mode of play, instead of trying to capture all the different configurations. However, as Billieux et al. (2013) observe, players might have several characters that they consider ‘main’. Players can also approach the game in many ways depending, for example, on whether they are currently engaged in PvP (player-versus-player) or PvE (player-versus-environment). Similarly, the orientation to playing can change even within one gaming session depending on a number of factors.

For those motivated to participate, digital gaming and online game worlds offer near endless ways for self-expression. The lure of these environments and the communities within has been well documented. There exists a large body of players who dedicate as much, or indeed more, time on their chosen games than they do on studying or working (Castronova 2001; Kolo and Baur 2004; Yee 2006). While it is certainly possible for an individual to spend scores of hours a week playing single player games, it is the membership in player groups and communi-
ties that is often connected to such devotion. From the viewpoint of communication sciences, player-to-player interaction has been a fruitful area of interest, spawning many insights into the dynamics of online social interaction.

2 Player groups and communities

Gaming, and play in general, is often social activity, and as far back as 1938 the play element in culture was recognized as a factor promoting the formation of groups and communities (Huizinga 1938). From negotiating rules and boundaries to cheering a teammate for their efforts, it is the presence of other players that draws people into contemporary digital realms. As video games have evolved in tandem with communication networks, it is only natural that players have used the affordances of information and communication technologies to form and maintain both interpersonal ties and larger social aggregates. The study of social dynamics within player communities, often called guilds or clans, has been a major thread in game studies.

One can approach player-to-player interaction in groups and communities from a variety of viewpoints. As Warmelink and Siitonen (2013) observe in their systematic review of research into player communities in the 2000s, there are three partly overlapping levels of interest that scholars have chosen to concentrate on – the micro, meso and macro levels. Closest to issues of interpersonal communication, the micro level focuses on groups and teams, such as individual groups doing ‘raids’ or coordinated co-operative tasks within the game world. Some studies focus on the meso level of larger social aggregates such as whole clans or player organizations. The macro level perspective is interested in larger networks of players, possibly whole populations that inhabit certain games or game genres. On this level, we can actually be talking of societies and sub-cultures instead of groups and communities.

Generally, there has been a heavy bias towards qualitative studies, especially ethnography and participant observation. On the other hand, large-scale surveys have also been utilized, and approaching the 2010s more and more studies have used various forms of data mining with large data sets, or so-called big data (Warmelink and Siitonen 2013).

As with individual player motivations, there are significant variations in how player communities organize themselves, and the kind of orientation they have. The most basic division occurs between militaristic communities where competitiveness, rules and hierarchical power structures are emphasized, and casual communities, where the emphasis is on equality, close interpersonal ties and a relaxed sense of fun (Williams et al. 2006). These basic orientations are connected to communication practices within the communities, such as the preferred kind of leadership communication, or the ways conflicts arise and are dealt with. For example,
guilds formed of competition-oriented players and with short-term objectives in mind can be rapidly dissolved or deserted by their members if those objectives are not met (Chen, Sun & Hsieh 2008).

Already early on in the development of digital game research it was noted that as player experience and history with teammates develops, some community members may begin to value social interaction with other players over playing the game or exploring a virtual world (Schiano and White 1998). In these cases, the game environment can become a mere setting for establishing and maintaining interpersonal relationships. On the other hand, not every one wants to connect playing a game with socializing – at least all the time – highlighted by the continuing popularity of single player games and players choosing to stay out of established groups and communities.

While formulating abstract, generalizable constructs about player motivations and behavior can be useful, they do not represent the be-all and end-all of insight into the life of player communities. Referring to his experiences during an ethnographic study of World of Warcraft (WoW), Chen (2012) reminds us that, “… real social situations – like the ones I experienced in WoW – are messy and complex and problematize the very notion of constructs as convenient ways of modeling player behavior” (Chen 2012: 58). In order to understand the life worlds of players of online games, research needs to focus on actual communicative practices.

Online games offer many possibilities for examining the dynamics of social interaction. As a part of the current technology-mediated communication environment, online games are examples of ‘third places’, sites where people are engaged in a variety of informal social processes with familiar others, and where they spend a significant amount of their free time (Steinkuehler and Williams 2006). In these ‘third places’, players typically self-organize into what can be called collaborative groups (Stohl and Walker 2002). These groups are characterized by having formed naturally, having a shared goal that no group member on their own can reach, and displaying a distinct need for communication in order to reach that goal. There are other characteristics that fit these groups as well, such as having permeable boundaries, and a freedom to negotiate the structure (i.e. the need and distribution of leadership and power) as the group members see fit.

Another way of understanding player communities is to see them as communities of practice (Lave and Wenger 1991), in which core issues concern expertise and learning – i.e. how do new members learn to act and behave legitimately, according to the requirements of the group? In his ethnography of a World of Warcraft raiding group, Chen (2012) describes the long and arduous learning process through which a group of people continuously negotiate who they are, and the purpose of the group. Looking into player communities can teach us about how shared practices and coordination emerge in interaction. An example of this can be observed in the emergence of Dragon Kill Points (DKP), which basically is a system whereby players earn points or shares for their group by participating in
its efforts (Chen 2012; Malone 2009). These points can then be used to bid for goods (spoils of war) that the group has collected. Alternatively, if a player has neglected to participate in shared tasks in a given time frame, they will not have such good access to the group’s spoils of war. As a system, DKP answers a common problem of distributing goods within a collective. This means that it is not really specific to any one game in particular, but rather an abstract solution to a social dilemma that can be encountered in a variety of settings. Furthermore, DKP is also not a feature that would have been originally programmed into the game, but rather represents a social contract that has emerged through player interaction.

Whatever the approach of the study, player groups and communities in online games can offer an interesting window into social life online. Looking at player interaction on both the interpersonal and the group level has provided insight into how players’ interaction operates as a basis from which norms and rules (culture) emerge (Taylor 2006a). This idea of emergence comes up time and again in game studies, highlighting that it is through interaction – whether it is between the player and the game, or between players in general – that games reach their potential. For example, roles in a WoW raiding group can be understood as coming into being as a “… combination of game mechanics and emerged social practice” (Chen 2012: 63).

Online games can be seen as spaces where relationships and trust are developed, and where players are able to provide each other with social support, and a feeling of belonging. What makes games such as MMOGs especially intriguing is that they

... offer greater interdependence, persistence of identity, and strength of reputation systems than general online environments (Ratan et al. 2010: 10).

The point about persistence of identity is especially pertinent here, as the question of reputation is so central to the operation of groups and communities in general. Having persistent identities means that there is no true anonymity in the strictest sense of the word, and that it is possible to tarnish a player/character’s reputation should they break social norms. Naturally, on the other – more positive – side of this coin is the possibility of gradually building up one’s reputation by helping others out and being a reliable member of the play community (Jakobsson and Taylor 2003).

Expanding the view from player groups to larger social aggregates reveals an interesting panorama of life online. Similar to many other online environments, game systems offer possibilities for data collection that are hard to compare to or match in face-to-face reality. On the macro level of community, for example, it is possible to gather very large sets of data that can be used in data mining. Indeed, many companies do this automatically, even though it may not be all that easy for researchers in academia to negotiate access to such data. Often one can utilize programs and add-ons that interact with the game system, effectively making an automated log of players’ in-game activities.
Macro-level analyses have suggested that player behavior in virtual environments follows, at least in some aspects, the patterns found in the “real” world. Castronova et al. (2009) found out that real-world categories and metrics could explain economic behavior in EverQuest 2. On the other hand, there were differences as well, such as more dramatic fluctuations of the gross domestic product than one would expect to see in real economies.

Games and virtual worlds have also been suggested as possible sites for studying human behavior in real-world pandemics. In what came to be known as the Corrupted Blood outbreak in World of Warcraft, a glitch in the game made it possible for a dangerous virus to spread outside its intended area of effect, causing unforeseeable panic and destruction. This led some scholars to look into the possible similarities in how people behave in an epidemic in a virtual environment and the physical one, and whether the spread of infectious diseases could for example be somehow modeled with the help of massively multiplayer online games (Balicer 2007; Lofgren and Fefferman 2007).

Of course what exactly is recorded on the server side of online games and virtual worlds is not always immediately useful for research purposes, for example to be used in behavioral validation of self-report data (see Kahn et al. 2013). Still, the idea of using online games as a sort of laboratory for studying human behavior is worth further exploration. Games can offer affordances similar to controlled experiments in laboratories, where the number of variables is – or at least is thought to be – controllable, making it possible to tease out cause and effect.

3 Games as communication systems and platforms

As an art form native to the digital environment, digital games employ the whole scope of communication possibilities made available by today’s computer networks. Often, these affordances are utilized in imaginative and playful ways that give users great freedom of expression, such as avatars in virtual worlds, and more recently, the use of ubiquitous and geo-locating technologies.

In addition to everyday communication modalities such as text chat and voice over IP (VoIP), games can include mechanics that form a crucial part of the flow of interaction. For example, a simple function like making an avatar jump in a game world can be used in a variety of ways, communicating everything from excitement to frustration to camaraderie. An example of such a ‘creative player action’ (Wright et al. 2002) that can be achieved with a simple jump-command is when players pile on other players, trying to form ‘towers’ that can consist of dozens of players, achieving heights otherwise impossible to reach.

As the example about jumping demonstrates, communication in online games does not need to bear immediate connection to or similarity with face-to-face situations. Sometimes the way communication pans out in virtual environments could
even be downright ludicrous if translated into an exact face-to-face copy. Two paradigm examples are ‘gagging’ and ‘idling’, both of which can be traced back to early virtual environments such as MUDs (Curtis 1997). Gagging refers to the possibility of silencing or ignoring another player altogether, often without any notification to the gagged player. When gagging a player, it is as if that player’s communication immediately ceases to exist. Idling, on the other hand, refers to those times when a player’s character is in-game but does not do anything. It is practically impossible to know whether the player is actually there, observing what is happening around the character, or whether they have left the game for a while in order to do something else.

In many ways, the whole act of playing a game can be viewed through a communication lens. Every move a player makes, and every action they implement, can be seen as a communicative act. This is true not only for video games but for games in general. In football, for example, *the way* one passes the ball or shoots it toward the goal can carry meaning. Similarly, in online video games interaction between players can be seen as mostly taking place through nonverbal behavior (Manninen 2003).

While it is important to avoid resorting to (technological) determinism, it has to be acknowledged that changes in game features, be they rules, mechanics, or technologies, can have a significant effect on communication and the social dynamics of players. For example, the original version of the MMOG *World of Warcraft* supported up to 40 players joining in on a joint venture (e.g. exploring a dungeon and fighting the monsters within). Later on, an expansion saw the maximum amount of players reduced to 10 and 25. This change affected areas of social interaction such as interpersonal relationships and social alienation and directly contributed to smaller communities becoming more viable. Players who found themselves displaced or left on the sidelines formed guilds of their own, resulting in a larger number of smaller guilds (Chen, Duh and Renyi 2008).

The creation of virtual worlds pushes us to appraise and articulate anew the many physical and interaction rules that we are used to in the physical world (Yee 2009). Rules such as how far a voice carries, how many players can participate in joint ventures, or indeed even be in the same place at the same time, have to be thought of and explicited. Some of these rules might encourage certain kinds of behavior, while others might make them difficult to carry out. Yee (2009) posits that, “In the same way that code is law in cyberspace, the rules of social interaction in EQ (*EverQuest*) – its social architecture – define the ways in which players can communicate and interact with each other. And these rules can be designed to shape social interactions and encourage cooperation, altruism or distrust” (Yee 2009). As simple as this sounds in theory, in practice even well designed and long-lasting MMOGs can fail in these goals. Based on data from direct player behavior in *EverQuest*, Shen (2014) demonstrates how it may come to be that, “[T]he very game mechanisms designed to encourage social play create a new set of constraints on social interactions” (Shen 2014: 689).
Thinking about the social architectures of virtual worlds is interesting from a design perspective, as well as an analytical one. The theory of Transformed Social Interaction (TSI) posits that collaborative virtual environments have the power to change the nature of social interaction in new ways (Bailenson 2006). The key idea here is that technologically mediated communication allows us an unprecedented level of control over the dynamics of interaction, as long as we think outside of the box of i.e. the laws of physics. For example, technology allows us to systematically alter our appearances, or to amplify or suppress nonverbal signals. Bailenson (2006) uses the example of how we could use virtual worlds to solve the inability to orient eye contact in traditional video conferences. Calling the idea a non-zero-sum-gaze, Bailenson describes how it is possible to make it appear as if an avatar is directing its gaze at more than a single interactant at a time. In an instructional situation with one teacher and twenty students, it is possible to make all twenty students have the illusion that the teacher is looking directly at them. It is also possible to make the situation appear differently for each participant, or to automate certain behaviors such as nonverbal mimicry in order to facilitate certain kinds of responses.

An interesting application of this line of thinking comes in the form of The Proteus effect (Yee et al. 2009). In brief, the Proteus effect explains what happens when people infer their expected behaviors and attitudes from observing their avatar’s appearance in a virtual environment. For example, users who are given taller avatars will tend to negotiate more aggressively than those given shorter avatars. What is especially interesting in the experiment by Yee, Bailenson and Ducheneaut (2009) is that they noticed that the behavioral changes could transfer over, affecting subsequent face-to-face interactions. While it is certainly true that in some respect we can always try to “transform” interaction, for example when applying makeup or learning to be overtly aware of our nonverbal behavior, the idea of exploring outside the boundaries of our established notions concerning social interaction is a refreshing one. At the very least, these viewpoints remind us that we may be as little aware of nonverbal communication in virtual environment as we are in the “real life” of face-to-face interaction. Combined with the affordances that virtual environments have for altering our self-representations, we can start to make out whole new lines of research that not only describe communication behavior in technologically mediated settings, but may help us understand our face-to-face reality better as well.

As the previous examples have illustrated, game spaces and players’ behavior in them can help us understand and appreciate the complexities of our contemporary communication environment, while opening up new avenues of thinking. As ever with human communication, deciding how it’s best to try to understand the multiple forces at work in any given context is difficult. To what extent should one try to incorporate the technological dimension, and to what extent should one concentrate on the human actors. Returning to World of Warcraft, Chen (2012)
offers an account on how a new technological add-on to a game, created by players and not the game company, had a tremendous influence on the raid groups’ processes and capabilities, allowing them to be more coordinated in their efforts. “Not only did the add-on help us with our cognition, its use also changed who communicated with whom and about what (...)” (Chen 2012: 105). There have been other similar accounts, showing how changes in game design, or the tools that comprise the communication environment, can result in changes in player expectations, their collaboration and social interaction in general (Taylor 2006b; Chen, Sun and Hsieh 2008).

Naturally, it is often hard to tell how players use the affordances a game system presents them, especially since many contemporary online games are increasingly complex and procedural, meaning that the players are relatively free to choose how the game proceeds and what kind of an experience they create within it. In addition, games do not exist in a vacuum, but players are adept at creating go-arounds and replacements for features they wish to be there. This is similar to the concept of emergence introduced in the earlier section. One possible way of finding a balance in the issue of human versus nonhuman actors is to adopt a viewpoint that embraces the roles of both. For this purpose we will briefly turn to sociology and the Actor-Network-Theory (ANT) of Latour (2005).

While the focus of studies into social interaction is often on human actors, ANT proposes that nonhuman actors should be seen as just as important. This is a different way of thinking, asking us to appreciate the way in which nonhuman objects can act on us, for example by enabling or disabling certain choices, and how roles and responsibilities are distributed across multiple actors. These ‘actants’ can even be semiotic, that is, ideas, values, etc. anything that might make a difference in a situation. The ANT approach in examining what happens in games and player communities emphasizes that everything is in constant negotiation. For example, every time there is a new inclusion to a network, there must be a process of translation, of reassembling, that may just as well end up changing the whole network. The point of the analysis, then, is to make an assemblage – meaning all of its actors and their relationships – visible to the reader.

An approach like this naturally has its limits. For example, it is practically impossible to describe and analyze every actant, present in and absent from a game, meaning that the researcher has to make choices throughout the process. However, holistic analyses that try to take into consideration as many factors as possible are necessary in order to avoid determinism of any kind, or letting pre-assumptions dictate what we see when we look at communication behavior in the realm of digital games.
4 Conclusions

Looking into the immediate future, it is unlikely that the impact of games and playfulness will vanish. This is due to many reasons, such as the continued advances in communication technologies, as well as the macro-economic realities of industrialism and globalization continuing the drive towards the minimal employment of staff needed for basic production work, while more and more people provide and seek entertainment. Similarly, technology-mediated communication of the digital kind has become a prevalent part of our everyday communication landscapes. Digital games, or video games, are an integral part of that reality, and subsequently offer many opportunities for understanding contemporary communication practices.

As Lehdonvirta (2010) argues, much of what we know of online video games and their players is based on a dichotomous ‘real world vs. virtual world’ model, if only implicitly. What this means is that “cyberspace”, or indeed smaller instances of it such as individual games, are seen as inherently separate and different from other aspects of reality. Instead of adopting this approach for future studies, Lehdonvirta (2010) suggests acknowledging the ‘messy’ reality that players live in, where boundaries are not set by distinct games or communication technologies, and where research that sees games or virtual worlds as independent mini-societies is flawed. Instead, Lehdonvirta reminds us of the interconnected nature of communication and relationships, taking a view not unlike systems theory, in which player behavior in video games cannot be understood in isolation from their “… other social worlds, such as families and workplaces, [that] penetrate the site of the MMO and are permanently tangled with the players’ world” (Lehdonvirta 2010). Four years earlier, Taylor (2006a) presented a similar critique, reminding scholars that a virtual world is “… not a tidy, self-contained environment but one with deep ties to value systems, forms of identity and social networks, and always informed by the technological structures in which it was embedded” (Taylor 2006a: 18). A similar position can be found from contemporary scholars in similar interdisciplinary fields of inquiry such as intercultural communication, where the long-standing essentialist underpinnings of research based on easy and intuitively appealing categories, such as nationality, has been extensively criticized (see Holliday 2011). This is not to say that studies should never concentrate on a single game world or community, but rather it serves as a reminder of the dangers of oversimplification and losing sight of the larger picture in all its diversity.

There are many possible new directions where communication sciences and game studies can head. The debate between formalist or structuralist approaches into game systems and more player-centered approaches highlighting resistance and emergence will most probably continue to be vibrant. New data collection and analysis techniques allow for new types of questions to be raised regarding tensions and discrepancies between reported and observed behavior (Williams et al.
2008). Parallels will continue to be drawn between the ‘real world’ and the virtual one in a variety of ways ranging from economics (Castronova et al. 2009) to cross-cultural adaptation (Ward 2010).

Interaction is at the heart of games. Often, the interaction may be between a player and the game, but it is equally possible that the game’s rules and mechanics encourage or force player-to-player interaction to occur. In addition to designed interactivity, it is possible that players utilize the affordances of all communication systems and channels at their disposal, creating complementary, parallel, or even contradictory dimensions of communication that entwine with game play. Because of these emergent qualities, interactivity remains fluid, difficult to predict, and immensely intriguing as a topic of scholarly attention.

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