Technology and emotion:
Playing for the love of the game

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Introduction

In 2012, on a quiet street in relatively suburban Iowa, five housemates share a common bond. They live together with a similar goal of finishing their college degree. They often spend Friday nights at Amore's Pizza on Main. They all struggle with dating, grades, and figuring out what to do after graduation. They have a variety of excuses regarding why they hang out and why they live together.

However, the tie that binds this group is actually an affinity for *World of Warcraft*[iii]. When Phil and Michaela met their freshman year; both were already experienced players. They met online first, not realizing they went the same school and lived in the same town. Michaela thought Phil's priest was oddly romantic; Phil thought Michaela's Elf avatar was *smoking hot*. The rest of the players were face-to-face friends who joined because of their friendship with Phil or Michaela. Dominika just happened to be looking over Michaela's shoulder when "Horatio the Stable Boy" appeared in the Howling Fjord. She was instantly smitten, comparing Horatio to Wesley in her favorite movie *The Princess Bride*. Stella knew nothing about gaming but was intrigued that Michaela was able to find someone to date through a video game. Her Human character ("Lusty") has not, as of yet, found its online match. However, she has spent hours adjusting her avatar...*just in case*. Calvin has less time to play due to his athletic scholarship and his long-term relationship with his girlfriend. When he could join in, he was fascinated with his Tauren Druid named "Perlona." He talks about her often and even admits he skipped some quests because he didn't want her to get hurt. All five housemates are part of the same guild.

What is compelling about each of these individual stories is the collective theme of love and romance in gaming. Phil and Michaela found a way to strengthen their relationship through gaming. Dominika fell for a non-player character, seeing in him characteristics she desired in her day-to-day life. Stella uses the game to search for a mate. And, Phil, although happily in a relationship with a live, non-video game-playing human, cares deeply about his created avatar.

Although the stories like this are not rare, deeper questions remain about why such relationships exist. What power is there within gaming to afford, enrich, create, and destroy relationships in both face-to-face and virtual worlds? Is there a way to dig *deeper* to be able to name the practices that undergird such relationships (Ferdig & Weiland, 2002)? In other words, are there terms, words, and principles that can be borrowed from existing research to explain the interactions around love, romance, and flirting that occur within games and gameplay?

The point of this article is a theoretical and pragmatic look at the psychological and sociological underpinnings behind the concepts of romance, love, and flirting with and through technology. More specifically, the purpose is to address how these theories get played out in games. Such principles and theories could come from fields like psychology and sociology, but also from literature and neurology. Whereas the special issue as a whole is devoted to essays that explore love, romance and flirting within specific games, this article sets out to begin to collect a set of terms and theories to explore why those emotions and/or why those games afford such emotional responses.

Cross-cutting themes and definitions

Prior to exploring terminology for understanding love and gaming, it is necessary to return to a few basic questions. What is the definition of love and how does it relate to romance and flirting? And, what does the research currently say about technology, love, and romance?

<u>What is love?</u>   It seems like a simple enough question to answer. However, there are as many answers to this question as there have fields that have attempted to answer it.   Biologists, sociologists, psychologists, neurologists, psychometricians, philosophers, authors, and poets have all attempted to classify and characterize *love*.   Early philosophical definitions compared erotic love (*Eros)* to friendship (*Philia)* or even divine love (*Agape)*[iv].   One current dictionary defines love as a strong affection, enthusiasm, attachment or devotion to another based on loyalty, sexual desire, personal or kinship ties, adoration, benevolence, common interests or concern[v].

Some theorists and researchers have attempted to define love as a process.   For instance, Hazan and Shaver (1987) see love as "an attachment process (a process of becoming attached), experienced somewhat differently by different people because of variations in their attachment histories" (p. 511.).   Here, drawing on past sociological work, they see attachment as being secure, anxious/ambivalent, or avoidant, depending on the history of the person in love. Sternberg (1986) saw a more triangular process between intimacy (feeling close), passion (leads to romance, attraction, and sex), and the decision to love/commit.   And, Briggle (2008) uses historical work and his own theories to describe the process as having components like union, robust concern, valuing, emotion, and capacity.

The purpose of this paper is not to define love.   A further reading of Pujol & Umemuro (2010), Briggle (2008), and Graham (2011) will provide both theoretical and meta-analytic/psychometric attempts to do just that.   However, we raise the question here to offer two key points about terminology used in understanding love and gaming. First, Graham (2011) differentiates love or romantic love from romantic obsession and practical friendship.   This, in some sense, is where love is further defined from flirting and romance.   Romance and flirting may be the process by which some aspect of love (romantic love, obsession, or friendship) is obtained.   The terms we have begun to collect may be used to further explain why or how the process (flirting or romance) or the outcome (some definition of love or

friendship) is achieved.   Said differently, the terms are not predicated on one specific outcome.

A second reason the definitions are presented is to understand that gamers and game developers might have their own reasons, definitions, and desires for why they play or why they created the game.   It is possible that some of the most compelling games are those that afford any type of love connection.   It is also possible that games that have some of the strongest fan bases may be those where the author and reader/player share the same goals and desires.

What does the research currently say about technology/gaming and love?   In an extremely philosophical discussion of love, Briggle (2008) tells a fascinating history of the relationship between media and love. He provides evidence dating back to the telegraph; and also discusses the interactivity of today's media, ranging from online dating to cybersex.   A point to be taken from Briggle's argument is that where there is media, there will be attempts to use media for love, friendship, and sex.

Thanks to popular press, some of the most recognizable work in this area relates to e-dating.   Anderson (2005) studied e-dating and found that the more time one spent online and the more positive one felt about the Internet, the higher the perception of online relationships. She also found that people generally perceived e-dating unfavorably, although those opinions have changed with the growing popularity of online dating (Heino, 2011; Close, 2004; Donn & Sherman, 2002).

Other research articles have focused on specific technologies.   For instance, Ramirez and Broneck (2009) provided evidence that instant messaging was "employed in sustaining a variety of relationships. Interactions with lovers and best friends were most frequently reported, yet those with friends and acquaintances were also quite common; only family relationships were reported less frequently" (p. 309).   Gilbert, Murphy, & Avalos (2011) found that participants rated communication quality and satisfaction with their virtual partners higher in a three-dimensional space (*Second Life)*, than in their separate, real-life, romantic relationships.   Taylor (2011) found that

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avatars created a sense of emotional involvement in asynchronous online communication.

Romance and love have also obviously impacted video game development and play, particularly given recent technological advances. Just as *World of Warcraft* has been examined to understand how groups function, communicate, and interact (Ecenbarger, 2012), video games can also be explored to understand how people develop relationships and fall in love. Research on emotionally-laden or emotionally-potent games has often focused on the gamer. For instance Cole & Griffiths (2007) found a majority of participants in *Massively Multi-player Online Role-Playing Games* (MMORPGs) made good friends within the game. Over ten percent had also developed a physical relationship with another player. Ravaja et al. (2006) used cardiac interbeat intervals (IBIs) and facial electromyography (EMG) to measure physiological arousal and emotional valence. Their findings provided evidence that playing against other gamers elicited more emotional responses; playing against friends produced more spatial presence, engagement, and arousal.

In sum, research has demonstrated that regardless of whether it is a part of the game or whether it simply affords it within the game, romance, love, and flirting are occurring with and through gameplay. The deeper question for both researchers and game developers relates to whether there are any principles or theories that would help us explain why.

Developing a toolkit of terminology for understanding romance and love in videogames

There are at least four ways in which games and gameplay seem to provide opportunities for love, romance, and flirting. Descriptions of each of the four opportunities are provided and the games where they might be experienced. More importantly, concepts are introduced that begin to fill our toolbox of terminology used to explain such phenomena.

1. <u>Videogames that allow for the creation or maintenance of relationships out of the game world</u> (see Figure 1).
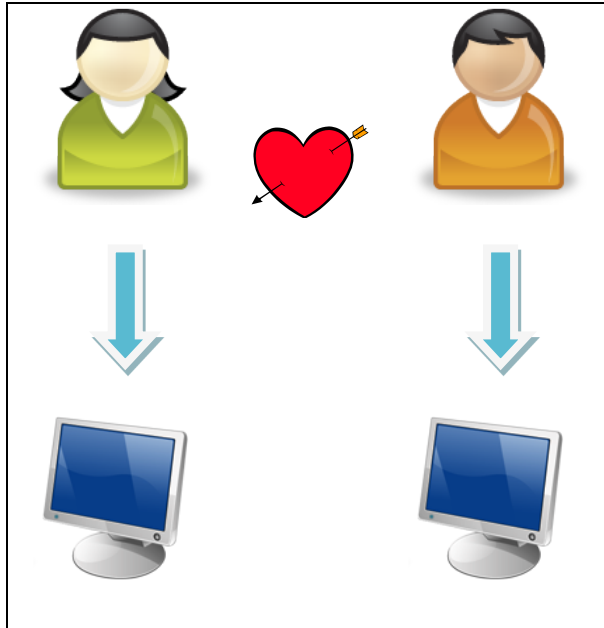

Figure 1: Games people play together, alone.

The idea is that people play a videogame that is, in-and-of itself, not multi-player. However, these games provide opportunities for romance, friendship, and love on one of two levels. First, people get to know each other or enhance their relationship because they play the same game. A person might play *Mahjongg* or *Lego Star Wars* by themselves. They might meet someone face-to-face and then find out they share an affinity for the same game or the same type of gaming (e.g. first person shooter games). This could also occur when someone introduces a friend or lover to a game. They still play individually, but they share experiences in the same way that they would share a book they both admired.

A second way this occurs is through games where players help each other, either coincidentally or through planned outlets by the game developers. Many players enjoy *The Sims* series on their own, but go to social networking sites to post pictures and stories of their players. Fan forums and gaming websites like the *Curse Network* also provide opportunities for players to share experiences and struggles. Other games are more direct in their involvement, such as games on social networking sites (e.g. *MafiaWars or Farmville*). And, developers seem to be tapping into this social potential. *Dragon Age Legends* allows users to collaborate and even use their friends' characters while not necessarily interacting in gameplay. Engines like *STEAM* and Electronic Arts' *Origin* provide offline and single player games with social features like discussions and friend lists.

One could arguably also include in this category multi-player games that are not in-world. For instance, two or more players might play *MarioKart* or *Wii Bowling* while in the same room. Although these games have the ability for online interactions, the players are using these games to supplement their face-to-face interactions.

At the core of this type of gaming interaction is what researchers call *homophily*, or the tendency for those who are together to have similar attributes (Lazarsfeld & Merton, 1954). Kendal (1978) found that "friends…who share certain prior attributes in common tend to associate with each other and tend to influence each other as a result of the continued association" (p. 435). Said differently, people might meet or grow their relationship because of a shared interest in a game or type of game; they might also further their relationship by suggesting new games. As their relationship grows, they might begin to influence the type of game that the other plays. People fall in love or become friends because they share similar interests and begin to develop interests together. Werner & Parmalee (1979) conclude: "activity similarity may comprise the backdrop against which individuals initiate, develop, and maintain friendships" (p. 66). Once playing together, there are significantly positive effects on relationships between close friends and partners (Cole et al., 2007).

2. Videogames that allow for the creation or maintenance of relationships in world (see Figure 2).
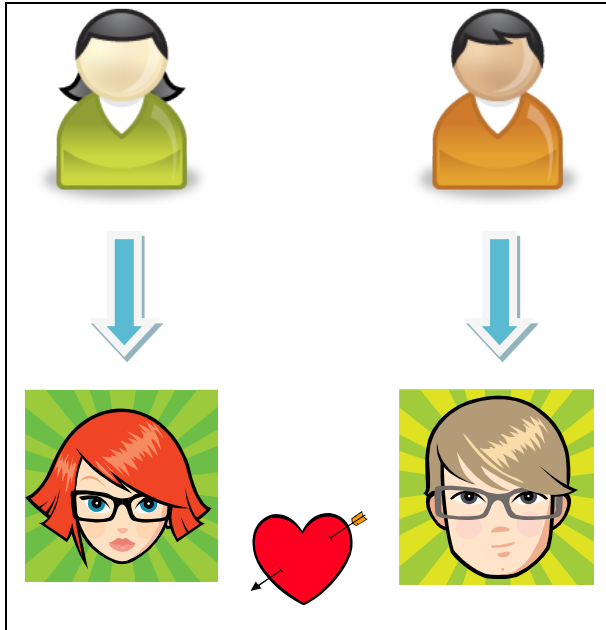

Figure 2: Games people play together online, sometimes as avatars.

In this scenario, the game that someone plays is multi-player and online. These games may be simple in nature, like *Words With Friends*. Or, they can be graphically complex adventures that provide opportunities to live out the life of some other fictional or real character. Video games like *Madden* give players the chance to play other opponents under the guises of a real football player. Other games provide the opportunity for the creation of a character. This might be semi-guided as in the case of *NCAA Football*, where you are playing as a human, male athlete from a school in the United States. You can change attributes like player position, height, weight, and other physical characteristics. Finally, there are online games where the possibilities of character creation are seemingly endless. In

World of Warcraft, you have the opportunity to select many features about your character, including its species.

Research provides evidence that people fall in love, have romantic relationships, and make friendships in these situations (Cole et al., 2007); they even move in together and have children[vi]. There are two interesting terms here that provide insight into romance and love online. The first occurs before love or friendship and focuses on the game experience; it is called the *misattribution of arousal*.

Researchers, in an experiment called *the shaky bridge study* (Dutton & Aron, 1974), demonstrated that when people met in high arousal situations, they were more likely to claim they experienced romantic feelings. In this study, men were asked to walk across one of two bridges: one was shaky and deemed unsafe, the other was considered stable and safe. In both instances a female experimenter was standing at the other side of the bridge. After they walked across the bridge the experimenter wrote her name and phone number on a slip of paper and told them they could call her later that evening with any questions. The men who met her on the shaky bridge were more likely to call and included more sexual and romantic content in their accounts of the situation.

Dutton & Aron (1974) call this effect the *misattribution of arousal*, meaning the men walking across the shaky bridge were mistaking their fear of the high, unstable bridge for attraction to the female experimenter. When this high arousal state is associated with a potential romantic partner, the feelings are linked to that person, creating attraction (Lewandowski & Aron, 2004). This suggests that if the female experimenter had been removed from the situation, the men would have correctly identified the source of their arousal (the shaky bridge).

Video game developers are using innovative technologies to create extremely realistic gaming scenarios that make people feel like they are in the game, in a war, or living out the lives of the characters they interact with. These situations can be highly arousing, whether the emotion is fear, angst, aggression, lust, etc. A misattribution of

arousal means that game players often associate these experiences with an online friend or partner, which can lead to attraction, romance, and love. The use of the word misattribution is not to suggest the outcome (e.g. love) is false. It simply explains the situation by which the high arousal initiated the attraction.

A second term occurs during and after gameplay, particularly in games where players create avatars.   Cooley coined the term *looking glass self* (1902).   The term implies one is defined not just by oneself, but also in relationship to other individuals or a social group in which one is involved.   Cooley suggests: "I am not what I think I am and I am not what you think I am; I am what I think that you think I am.   (p. 152). As players create and live out the lives of their avatars, a complex dance takes place.   A player might have physical attributes or characteristics, but those may or may not correlate with the created avatar.   Richard (2012) argues that games give players the opportunity to change roles, relations, identity, and gender/sexuality (p.71).   When two or more players begin to interact, there are at least four personas involved: player 1, player 1's avatar, player 2, and player 2's avatar.   Who a player thinks they are, and how the player sees their avatar become intertwined with how the other player sees their avatar seeing them.   Players may begin to act like their avatar or they may begin to act as the way others see them or see them playing out the life of their avatar.

Some of the terms explain why romance might be created.   The looking glass self might begin to explain why relationships created through games last or fail to last.   Players who meet in person outside of their avatars' interactions often find that their perceptions of the other players are representative or not representative of whom their avatars were interacting with.

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3. Videogames that afford relationships with technology (see Figure 3).

There are number of games where interactions with a non-player character (NPC) are either possible or required.   For instance, in *Star Wars Legos*, another character accompanies you.   In order to solve puzzles or unlock doors, you often have to switch characters and become the other NPC.   These NPCs are becoming more and more lifelike.   In the relatively recently released *Star Wars: The Old Republic*, the game frequently gives you NPCs to add to your crew.   A colleague, Joe DiPietro, shared that after a few months of non-gameplay, one of the NPCs actually emailed him, asked him where he was and that he wanted him to return to the ship.
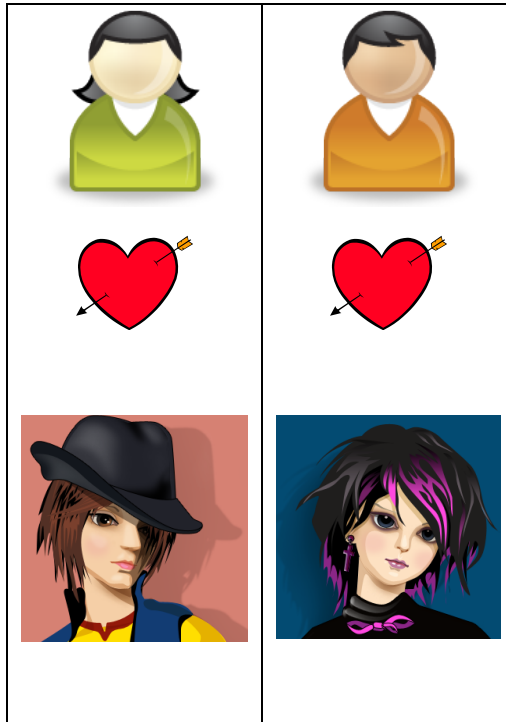

Figure 3: Interactions people have with technology such as non-player characters.

Other game examples include film noir type or single-player narrative games. In *Broken Sword: The Shadow of the Templars*, players take on the role of both *Nicole Collard* and George *Stobbart*. After their adventures end, the pair has their first date on the Eiffel Tower. Players have the opportunity to see and live out both NPCs.

There are games where an NPC is essential, but a romantic narrative is not provided; and, there are some games where saving a romantic interest are the goals of the game[vii]. Whether interacting with an NPC or living out the life of an avatar one has created, people occasionally fall in love with a technologically created character. This is similar to falling in love with a movie star, a musician, or a character in a novel[viii].

There are three terms that relate to this experience, two of which are very well known in the gaming world. First, researchers often discuss *presence*. Presence can be defined as "a psychological state in which virtual objects are experienced as actual objects in either sensory or nonsensory ways" (Lee, 2004, p. 44). A second term is *flow*, first proposed by Csíkszentmihályi (1990). Flow refers to full immersion into an activity to the point of focused motivation; emotions become aligned with the task at hand. Video game developers often tie these together, trying to create presence so that players can experience flow. When presence and flow are achieved, it is easy to understand why emotions like romance, love, and flirting occur as they would in everyday life.

Given the ubiquity of these terms in video game studies, we turn to a third concept—*the media equation*. Reeves and Nass proposed the media equation in 1996. The basic idea is that you can take any social science finding involving two or more people, replace one of the characters with a computer or technology, and you will get the same result. The example they provided in the book involves the social science concept of politeness. Their research studies showed that people were polite to computers in the same way that they would be polite to other humans. Other research studies followed this work; one demonstrated that people showed deep emotional responses to

computers (Ferdig & Mishra, 2004).   Those responses included anger, spite, and even attempts at revenge.

People fall in love, flirt, and have romance in real life.   Given virtual environments that are immersive for players, it is easy to understand why they would do the same thing with a technology such as a game, or more specifically, an NPC.   The question according to the media equation is not why do they fall in love with non-player characters, but why wouldn't they fall in love?

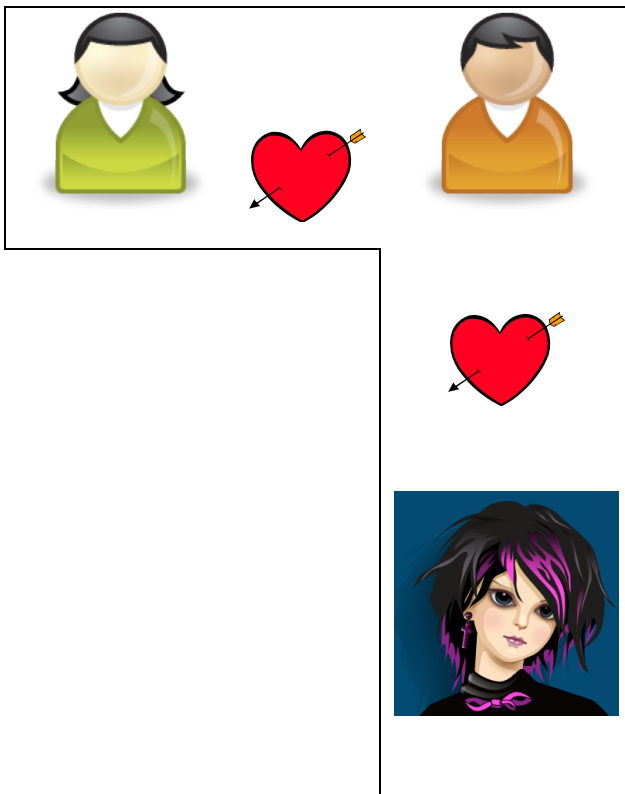4. <u>Videogames that impact the player outside of gameplay</u> (see Figure 4).

Figure 4: Interactions the impact people outside of the game.

In the first example, two or more people connected outside of a game around, with, or because of the game. The concept here is that someone plays a game, and then reacts differently to a live friend or spouse (who may or may not play the game) because of their interactions within the game. A person playing *Dead or Alive Xtreme Beach Volleyball* may have a different conception of women than a person playing *Portal*. Based on those interactions in-game, they might treat a person outside the game who represents the same gender, race, vocation or characteristics differently then they had before. The interactions are not just person-to-person. In *Free Rice*, every correct answer inside the 'game' equates to ten grains of rice donated to the *World Food Programme* outside of the game. Thus, the outcome could be direct (how I now treat someone) or indirect (what spending my time gaming has done to someone else).

Much of the mass media has focused on the negative impact of gaming. This occasionally involves actual gameplay. For instance, one man died after playing videogames for twelve straight hours[ix]. Another man let his two twins drown in the bathtub while playing video games three rooms away[x]. More often than not, these reports are about the real-life actions of a person outside of the game. People theorize deeply and ask questions about whether video games are to blame for real life murders. They wonder whether consistently playing *Grand Theft Auto*, a game where it is acceptable to kill cops, led an eighteen-year-old to kill actual police officers[xi].

What about the media/game impact on romance, flirting, and love? Some research reaffirms the negative evidence, particularly in relation to gameplay. For instance, one study found that 20.3% of participants believed playing MMORPGs had a negative impact on their relationship with non-game players (Cole et al., 2007). They also found a significant but weak negative correlation between the number of hours played per week and its impact on relationships. Not all of the research is negative. "As well as making good friends online, 81% of gamers play with real-life friends and family, suggesting that MMORPGs are by no means an asocial activity, nor are the players socially introverted" (Cole et al, 2007, p. 582).

Outside of a broader label of *media impact*, *experience-taking* may help define the relationship between in-world involvement and then out-of-world actions. Experience-taking is defined as a phenomenon when "readers lose themselves and assume the identity of the character, adopting the character's thoughts, emotions, goals, traits, and actions and experiencing the narrative as though they were that character" (Kaufman & Libby, 2012, p. 1). Kaufman & Libby (2009) explored this concept in six studies in which participants were asked to read narratives and respond to a series of questionnaires. They found that participants found themselves feeling the emotions and internal responses of characters to which they felt connected. One of the most important implications was that experience-taking can change or cause shifts in personality traits and behaviors. For example, in one study, people were more significantly inclined to vote in an election after reading a story about a character that overcame obstacles to vote.

This experience-taking could result in positively or negatively affecting one's relationship outside of the game, due to the amount of time played or the content learned during the gameplay. One of the potential positive outcomes relates to a second set of terms: *primary and shadow emotions* (Cook, 2011). Shadow emotions are those that we experience when reading a story, participating in an action scene during a game, or watching a car chase during a movie. These emotions are different than primary emotions, those feelings we experience when we are in a situation with consequences we perceive to be real.

Movies, books, and video games allow us to explore emotions without partaking in the actions that might accompany these feelings (McKinley, 2011). These imaginative rehearsals allow us to safely explore situations we might otherwise avoid. We can experience new emotional connections, sexual encounters, and even genders. These opportunities allow us to contest traditional gender roles, examine how we react and interact with others, and consider our identities, how others and we perceive ourselves (Richards, 2012).

The future of love and gaming: Conclusions and future directions

Followers of the Digital Romance Lab (http://www.dirolab.com) will undoubtedly point to a fifth possible scenario where new terms will be required. There are now games being developed in which interactions between players or with biometrics shape the outcomes of the game. These physiological interfaces are not new (see Gilleade et al., 2005); for instance, there was a Japanese game released in 1997 called *Oshiete Your Heart*. The goal of the game was to go out on a date with a girl and make her fall in love with you. Your success was based on how you answered the question and on a sweat and pulse sensor.

The recent equivalent might be the *Kiss Controller* (http://www.hynam.org/HY/kis.html). The Kiss Controller is a haptics device that uses a magnet on the tongue of one player and a headset on the other player. The person with the tongue magnet can interact by kissing to control the speed of a bowling ball or the direction of a racecar. The point is that whether biometric or haptic, new designs will provide for new interactions that will require new terms.

The purpose of this manuscript was not to categorize every situation or discover every term. Rather, it was to begin a conversation about the need to define both. Love, romance, and flirting happen in, with, through, and around games and gameplay. Deep and thick descriptions of such interactions are important to further understanding both the physiology and the psychology of romance in games. Additionally, creating a toolkit of terms can help researchers identify what is happening and can help game developers more directly connect with their audiences. In this paper, we have introduced four scenarios (plus a future scenario) and presented eight terms that might be useful in: a) understanding why love and romance takes place in games; b) how developers could continue to create opportunities for such outcomes; and c) what happens after a connection is made between people or between a person and an NPC. The goal is not to end the conversation, but rather to begin the

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conversation—to have others present and explore terms that might be useful in explaining the love in and of the game.

In addition to exploring existing scenarios, creating new experiences, and defining terms, there are at least three future directions that deserve investigation. First, we have provided evidence that people come into games and leave games with different definitions, expectations, and experiences with love and friendship. Researchers recognize these perspectives differ when examining both gender (Richard, 2012) and culture (Bachen & Illouz, 1996). Future investigations should continue to explore the role of cultural and gender-based perspectives on love and romance in gaming—and particularly the type of gaming. For instance, if females have less motivation to play in social situations or are less oriented towards games with competition and 3D rotation (Lucas & Sherry, 2004), it could help explain why love or friendship happens or fails to happen in such environments.

Second, in this future section, we have already discussed new technologies that are changing how people interact with the game and with each other. Daft and Lengel (1984) offered the *media richness theory*, or the concept that "communication media differ in terms of the number of channels used, the immediacy with which feedback is available, and the form of language utilized" (Ramirez et al., 2009, p. 311). Innovative games present new modes of interacting, communicating, and loving (Briggle, 2008). We have provided terms from sociology, psychology, and communication studies that have been used to describe face-to-face experiences that are happening in electronic gaming. There will obviously have to be new terms created for the types of experiences that have not been explored in face-to-face domains.

Finally, McKinley (2011) cites data from the *Centers for Disease Control and Prevention*, reporting that 45.7% of females and 47.9% of males in high school engage in sexual intercourse. She uses that point to highlight *young adult* (YA) literature as a way to provide girls with issues surrounding sex and the decisions to have sex (e.g. love,

self-esteem, etc.). YA literature provides young adults opportunities to play out romantic involvements and gives them insights into how to respond to emotions, how to engage in sexual encounters, and how to have intimate relationships.   Literature can be a catalyst for significant changes in people because it provides "an almost infinite number of alternative lives and personas" (Hayakawa, 1990, p. 1).

There are some examples of video games being used to explore sex education, gender roles, and gender identity (Gross, 2005). However, this is a point that has not received enough attention.   The Pew Research Center reported in 2008 that 97% of teens aged 12-17 played games[xii].   In other words, it is time we re-define YA literature as beyond that which is solely in print format (Gerber, 2009).   Video games are a part of the culture of our young adults.   It is part of the texts they read as they attempt to navigate life's complexities. Players can "lose themselves and assume the identity of the character, adopting the character's thoughts, emotions, goals, traits, and actions and experiencing the narrative as though they were that character" (Kaufman et al., p. 1).   Researchers, educators, and game developers should continue to explore the ways in which YA literature (including games and interactive fiction) is impacting or could be impacting adolescents and the angst they manage.

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