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First person paparazzi: Why social media should be studied more like video games

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ABSTRACT

Video games are often thought of as a type of social media, yet social media are not often thought of as a type of video game. This essay provides an exploratory study of the gaps in research at the intersection of social media and video game research, specifically as they relate to user identity and concepts of reality. Social media and video games are explored through their similarities, including goals of becoming a hero/celebrity, exemplified in social media through users acting like their own paparazzi.

A systematic analysis compares research regarding identity and reality in social media and video games from January 1, 2005 to March 29, 2011. While similar themes have emerged, the way that these themes are studied within video games and social media differ. These gaps in research suggest four new research areas for social media: mirrors, stereotypes, immersion, and definitions.

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1. Introduction

While not necessarily researched as such, social media and video games are similar. For example, in the popular online role playing game World of Warcraft (WOW), a gamer creates an avatar before entering the game world. The gamer picks gender, class and race, clothing and the avatar's appearance. Finally, the player can choose a name for the avatar. Similarly, when creating a profile on the currently popular social medium *Facebook*, a user inputs information such as name and location. The user chooses a profile picture and how much or how little of his or her true physical identity the picture reveals. Demographic information for inclusion is also chosen. Finally, the user can choose to use a full name, or only a nickname.

After creating an avatar in WOW, a gamer has many in-game options that continue to form the avatar's identity. The user can join a guild (group), choose the quests the avatar undertakes and choose the professions in which the avatar will excel. Similarly, on *Facebook* a user can choose friends, privacy settings, "likes," and so on. Finally, like most video games, WOW has an end goal. In general the goal is to be the hero, defined by relevance to the game itself. In WOW, a player has the end goal of reaching the highest level the game permits. But, like most popular and complex games, WOW also allows for "end game," meaning players can continue to play even when they have reached the final goal. Eventually, when enough players have reached the highest goal, a new goal will be set to continue excitement and involvement.

Similarly, the end goal of *Facebook* is to become a hero. This may seem strange, but it can be argued that the heroes of our time are celebrities, and social media users are aspiring toward celebrity status. Much like a first person shooter video game, users become first person paparazzi and are on a mission to make celebrities/heroes of themselves. Like gossip column and celebrity blog writers, users post pictures of themselves doing embarrassing or mundane things and post stories about every move that they make. A part of their identity is defined by how many friends, or fans, they have. Interestingly then, in both

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forms of media, the users are defined only as far as the architecture of the medium supports them. Just as a WOW avatar cannot leave the confines of the software that supports him, a *Facebook* user's profile cannot leave the confines of the site. These examples demonstrate a similarity between video games and social media. An important difference to note however is that while most gamers know that their avatar is only a representation of their "self," many social media users understand their online profiles to be almost perfect replicas of themselves.

It is no secret that video games are successfully integrating social media paradigms, many gamers connect to the Internet, while interacting with other, real people. Interactive video games have now transcended their traditional realm and led gamers to explore online forums and blogs to complement their gaming experiences. While video games are consistently thought of as providing a social-media-like experience, social media are not often thought of as providing a video-game-like experience. This is a surprising gap in light of the aforementioned similarities. This paper explores the gap in literature that exists at the intersection of the video game and social media fields and suggests that instead of only looking unilaterally at video games as social media, we should begin to use the metaphor of social media as a video game to understand effects of popular sites.

While there are many topics that both social media and video game scholars research, this essay focuses on audience research regarding the effects on identity formation and perceptions of reality.

2. Historical background

2.1. Video games

Video games began as simulations of real world activities. These real-world games reflected a variety of genres including board games, card and puzzle games, sports and role-playing games, and science-fiction themed games – to name a few examples.

Video game arcades were introduced in the early 1970s along with home consoles – such as Atari – which were also becoming popular (Kline et al., 2003, pp. 92–94). Scholars have come a long way to now understanding video games as not just something that gamers manipulate, but something that can manipulate users as well. One reason for playing video games is that gamers acquire new analytic and life/social skills. People "play games" in their heads to prepare for real life decisions and video game characters further this process. By inhabiting avatars, players take on and act out the in-game goals without fear of personal exposure. Video games help to externalize thoughts and help interactions to become more effective. Many games allow gamers to act out feelings in the game world that they otherwise would not be able to release in the real world. Video game scholars are also very interested in the effects games have on their users' conceptions of identity and perceptions of reality (Gee, 2006, 2008; Turkle, 1995).

2.2. Social media

Social media find their humble beginnings in our simplest forms of social interaction. From speech, to the elaborate but slower-paced medium of letter writing, to the rapid communication available through telephones and the Internet, social media have foundations in social networking. The term social networking defines sites that allow for a public profile, a public list of friends and visible friend connections. Social media have become known as a space for not necessarily meeting new people, or "networking," but for making visible social interactions between people who most likely already know each other offline. The first social media site is arguably considered to be introduced in 1997 (Boyd and Ellison, 2007). However, previous innovations are considered online social media too, such as Bulletin Board System (BBS) and features of America Online (AOL).

Social media research, like some video game research, focuses on the perspective of the user. Social networking sites are evaluated as public spaces that help users build identity and learn social norms. Users can learn more about themselves and their potential identities by using trial and error and certain actions online. Therefore, both social media and video game scholars find identity and reality to be important topics (Boyd, 2008; Turkle, 1995).

3. Conceptions of identity and reality

3.1. Identity

While the study of identity is usually understood as a reflection of the person's characteristics, it is also dependent on how the individual views himself vis-à-vis others. Identity is not a static state. It is a fluid, ever-changing process (Buckingham, 2008). Humans build and change their identities often through how others react to their actions – by inference (Goffman, 1959). Some scholars have argued that there are different kinds of identity, such as back-stage, front-stage and middle-stage. Goffman (1959) argued that people, like stage performers, have both a back-stage and front-stage identity. The back-stage identity is the private identity that not many people know about. Meanwhile, the front-stage identity is the public self. Meyrowitz (1985) added to Goffman's theory by including a third identity – middle-stage. This is the identity that is created when people have to combine certain social situations, such as being around both friends and family at the same time. Identity is often dependent on the contexts and groups with whom a person associates (Buckingham, 2008; Goffman, 1959; Meyrowitz, 1985). On Facebook, users are often not only judged by how they have completed their profile, but by with whom they decide to associate.

People can manage their impressions in different contexts by safely segregating their audiences and managing their different identities. Yet, some argue that people have become so engulfed in impression management that they spend too much time "talking the talk" and not enough time "walking the walk" (Goffman, 1959). Facebook users may be trying so hard to "like" as many philanthropies as they can that they never complete any charity work. Other Facebook users may electronically "join" protests on Facebook, but never go to the streets to fight for the cause.

Societal norms and stereotypes play large roles in identity formation. Often times, people will build their identities to fulfill certain clichés, whether they have chosen this path subconsciously or consciously. For example, female Facebook users may feel pressure to display photos of themselves dressed in a certain manner with their hair and makeup done. This may be because they believe they will get more male attention. Yet it also may seem the norm and not a conscious decision. Girls are then acting as the stereotypical female while also upholding hegemonic ideals of manhood – that a man should always like the done-up, feminine female. Often in society, stereotypes are upheld for the main purpose of remaining relevant. To be someone or a part of a particular group is not just about possessing the physical features of that group, but also maintaining a social situation's accepted mode of conduct (Goffman, 1959).

Technological advances also change how identities are formed. For example, in the print era there were time and space constrictions that allowed certain people to be a part of certain social situations. Members of elite groups found power in the mysteriousness they could create because they were the only ones privy to important information. With the advent of television, widespread programming of different societal contexts and information allowed more people to know information that was previously only available to an elite few (Meyrowitz, 1985).

New social situations bred through media create new social environments and require new ways of understanding and defining them. Often, these situations are confusing because the lines of fantasy and reality become blurred. For example, not only must humans perceive reality through their own pseudo-realities created in their minds through their experiential and cultural understandings of the world, but media purposefully create pseudo-identities of celebrities so that fans can feel attached (Horton and Wohl, 1963; Lippmann, 1922). Para-social relationships blur the lines of reality and fantasy because fans think that they know celebrities and begin to feel for them much like they would a family member or close friend.

3.2. Reality

Some scholars argue that the problem is not that pseudo-realities exist, but that people can no longer differentiate between the real and the simulation of the real. Suddenly, instead of real and imaginary, the world becomes a place where only the hyperreal exists – things that seem more real than real. It has been argued that there can be no "real" because there is no "imaginary" to oppose it (Baudrillard, 1981/1994). Celebrity culture has made heroes of our celebrities. While once, objective traits such as being a famous soccer player for one's athletic prowess, or being a famous singer for having the largest vocal range, today's celebrities are made – rather than rising to public attention through talent. These celebrities can be seen as hyperreal, though not successful since there is seemingly no failure to oppose their status (Rowlands, 2008).

With clear-cut standards of fame ceasing to exist, more people may feel it possible to become famous. Through prepackaged stereotypes and clichés, people can create their own pseudo-realities that frame them as celebrities. And, as celebrities need paparazzi to follow them, take pictures of them and write about them to keep them relevant, any person who wants to be famous needs paparazzi. Thus, people have begun to become their own paparazzi, shooting pictures of themselves and posting gossip about themselves. This widespread phenomenon would be almost non-existent without social media.

Much like identity in the offline world, online identity is not only based on the personal characteristics listed on a profile, but also on how a user identifies with others. Profiles list group affiliations and friend lists, attesting to one's popularity. Sites like *Facebook* provide tools to help users easily segregate their audiences and manage their impressions. Often users are forced to choose identity characteristics from a finite drop-down box or pick groups to identify with from a finite list. Users online are forming identities under the *illusion of choice*. Though they think they are choosing a unique identity, they are often selecting stereotypes and clichés by which to define themselves.

Hyperreality is potentially dangerous when people cannot tell the difference between the real and a simulation, and video games rely heavily on hyperreality. However, for the most part, gamers know the difference between the real world and the game world. Yet, the desire is to become as forgetful about this distinction as possible. Usually a game is considered "bad" when the technical or narrative nature breaks down and reveals this distinction. The illusion of choice in video games is present, but a benign and obvious aspect. Gamers, without thinking, understand that a game's software can only offer them so many choices (Kline et al., 2003).

3.3. Teens, video games and social media

While it is important to understand how video games and social media affect identity and perceptions of reality for all users, teens are an especially important group because they are in a transitional period where they are in need of discovering who they are and who they want to be. Social media are important in this equation because no matter how hard people try to define themselves, true identities will be made through how others view them. This idea was expressed by Buckingham (2008) who claimed that this is magnified on social media sites because social interactions are made visible. Identities are now constructed through how others choose to define the user. For example, *Facebook* users are not only defined by how they fill out their profile, but also by the comments other users post on their walls and tagged pictures.

Teens represent the majority of social media users – a 2010 study reporting results from September 2009 found that 93% of teens use the Internet and 63% use it every day. Seventy-three percent of teens in the United States log in to a social media site. The majority of teens report that they comment on their friends' walls (86%) and pictures (83%). Sixty-nine percent of teens own a computer and 80% of teens have some kind of gaming console. (Lenhart et al., 2010).

Much like video game addicts, heavy social media users may no longer find the "real" exciting. Simulations online follow an expected path. Teens that have grown up in a technologically transitional time have grown up learning to desire simulation more than reality because simulations match their expectations. For example, many teens today grew up with virtual pets, like *Tamagotchies*. These are a small, handheld game that allows users to take care of a digital pet (Turkle, 2011, pp. 30–32). Unlike Barbies and G.I. Joes, these children's toys are interactive and children must live by the toys' demands.

Much like any interactive toy or video game, social media also demands a certain level of interactivity and care. In return, social media sites provide a more-real-than-real experience that always places the user at the center of interaction, emulating hero or celebrity status. Friends seem more involved, trips seem more exciting and relationships seem more dramatic (Turkle, 2011).

Teens are very likely to be caught up in the current celebrity culture. In his book, *Fame Junkies*, Halpern, an NPR reporter on the program "All Things Considered," tries to understand why Americans, especially teens and children, are so obsessed with celebrities. On his website, he provides a survey completed for the study of 650 teens. Among other interesting findings, he found that teens would rather be famous than smart, have more of an affinity toward Jennifer Lopez than Jesus and would rather be a celebrity's personal assistant than the president of Harvard (Halpern, 2007, http://www.jakehalpern.com/FJMiniSynopsis.php).

4. Systematic analysis

As the literature shows, there are similarities between video game users and social media users. Therefore the research question is: what gaps in research exist between the studies of identity and reality in the fields of video games and social media since 2005?

For the purposes of this study, video game(s) are defined as those games that, while they may have certain features in common with social media, are thought of primarily as games, or were developed specifically for the "gaming market." Some examples are World of Warcraft (WOW), EverQuest and Call of Duty. Social media are defined as the social networking sites that are thought of primarily as means of social interaction. Some examples of these are the aforementioned *Facebook*, *Twitter* and *MySpace*, although the list is constantly growing. While each category may have elements in common with the other, it is important for the purposes of this essay to separate them by how they are used and marketed.

The systematic analysis used in this study is defined as a methodical "selection of research items that meet certain criteria to identify frequencies and trends, highlight themes, trace methods and theories, or to identify gaps in coverage or analysis" (Royal, 2005, p. 404). A systematic analysis differs from a meta-analysis because instead of trying to combine the results of many studies, the main goal is to focus on specific issues. Systematic analyses work well when comparing research across different disciplines, as this study will do with literature from communications, psychology and education; because a wide range of articles can be analyzed to fully understand what types of research are being conducted. Also, systematic analyses are useful when the areas of study, such as video games and social networks, are fairly new, for the reason that many people may be studying similar ideas but may not be aware of the connections between one another (Royal, 2005).

4.1. Methodology

Three databases chosen from those provided by the Temple University Library were selected to perform searches. The databases were chosen for two different criteria; they represented more than one discipline and they reflected breadth and depth of the articles that they provide. *Communication and Mass Media Complete* covered over 600 titles and 240 full text journals. The *Psychology and Behavioral Sciences Collection* covered over 500 full text journals. Finally, the *Education Research Complete* database was chosen because it covered 750 full text journals. A list of databases used and the keywords searched can be found in Table 1.

4.2. Keyword and article identification strategy

All database searching was performed on March 29, 2011. Articles published from January 1, 2005 to March 29, 2011 were searched. All articles were used if the database contained the full article, and major key terms were "video games" and "social media/online social networks." Both social media and online social networks were used because different

Table 1 Databases and search terms.

Database	Major term	Minor term
Communication and Mass Media Complete	Social media/online social networks	Identity
Psychology and Behavioral Sciences Collection	Video games	Reality
Education Research Complete		

disciplines represent the same idea differently. For example, *Communication and Mass Media Complete* articles were more likely to label this topic as "social media," whereas articles in *Education Research Complete* were more likely to refer to the same topic as "online social network." Additionally, the terms, "identity" and "reality" were the two minor key terms for this study. Articles were identified by using a three-stage process. Stage one consisted of a key term search of only the major key terms. These results can be found in Table 2. In stage two, each major key term was searched with each one of the minor key terms. These results can be found in Table 3. Stage three consisted of using the "not" strategy. This stage focused on removing any articles that contained one or more key terms from my "not" key term list. For purposes of length, this list has been omitted from this essay, but a wide variety of not key terms were employed to ensure that the remaining articles would not be focused on certain unrelated topics.

For example key terms such as business, business communication, business enterprises, information professionals and crisis communication were included on the not key term list because these articles focused mostly on businesses and managing a business or advertising for a business. Key terms such as educational games, educational technology, learning, vocational guidance and web-based instruction were omitted from the terms used because these articles focused mostly on writing curricula or using media to enhance lessons in the classroom. Only research articles published in scholarly journals rather than opinions or summaries were used.

4.3. Characteristics of the sample

4.3.1. Types of research

The articles in this study reflect the diversity of research approaches explored between January 1, 2005 and March 29, 2011. Scholars from the three fields of communications, education and psychology are using a wide array of approaches to build knowledge on these new topics. About 80% of the articles are primarily empirical while the remaining articles are primarily theoretical. The empirical articles consist largely of questionnaires but also consist of ethnographies, interviews, content analyses, case studies and studies that are a mix of two or more of these methods. The theoretical articles include ideas such as, but not limited to, self-categorization theory, social tie theory, platonic forms, parallax view, utility theory and performance studies. These final results are presented in Table 4 and are the articles that were analyzed for this study (n = 71).

4.3.2. Quality of research

The journals in which the articles were published are wide-ranging in their quality. The journals that were included in the search are listed in the Appendix. They are listed by their journal impact factor (JCR, 2010). If the journal was not found on the site, its impact factor was listed as "0." Articles were found in 48 journals.

5. Results

5.1. Themes

Because systematic analyses work best when comparing specific issues, after each article was reviewed, it was given a theme. The theme is the main concept that each article is researching or trying to define. In total, nine themes were found. Breaking the articles into their respective themes allows for a deeper understanding of different kinds of research. The frequency of each theme was noted and separated into social media and video games. To control for the number of social media articles (n = 43) and video game articles (n = 27), percentages of total for each theme for each major key term were found. These results can be found in Table 5.

5.1.1. Avatar/profile

This theme deals with the construction of avatars/profiles. It includes articles that encompass ideas regarding how users associate avatars or profiles with themselves, how users employ pictures/images to tell their narratives and how others' visible comments about avatars and profiles affect portrayed identity and perceptions of reality.

An article that represents this theme is "Architecture of the Personal Interactive Homepage" by Davis (2010). This article explores how a MySpace profile page affects a user's view of himself. The author remade his MySpace page and took note of how other users viewed him through the changes he had made. He also then conducted interviews with other MySpace users to see what MySpace meant to them and their identity construction. Davis concludes that profiles can help users know who they are because they can better know how others view them.

Table 2Stage one: Initial search result frequencies for major search terms.

Database	Search terms		
	Social media/online social networks	Video games	
Communication and Mass Media Complete	1579	780	
Psychology and Behavioral Sciences Collection	811	263	
Education Research Complete	2789	3287	

Table 3Stage two: Initial search result frequencies for major and minor terms.

Database	Search term			
	Social media/online social networks + identity	Social media/online social networks + reality	Video games + identity	Video games + reality
Communication and Mass Media Complete	78	35	39	45
Psychology and Behavioral Sciences Collection	20	7	6	18
Education Research Complete	89	50	32	80

This theme was more prevalent in the social media articles (21%) than the video game articles (11%). However, the kinds of studies that made up the social media articles and the video game articles are different. The social media articles are based on how profiles are purposefully employed by the user to define themselves or how comments by other users can affect impression management. For example, The "Virtual Geographies of Social Networks" by Papacharissi (2009) focuses on how the architectural profile choices of social networking sites changes the kind of practices taking place on those sites—such as privacy settings or group options. "Self-Generated versus Other-Generated Statements and Impressions in Computer-Mediated Communication" by Walther et al. (2009) focuses on how others' comments that are visible on profile pages alter perceptions of the user who created the profile.

The only article in this section that did not discuss these topics was "The Proteus Effect" by Yee et al. (2009). This article focuses on WOW, which under this paper's definitions, belongs in the video game category. The article follows a similar path to the video game articles which focus on how avatars may affect users' perceptions of self. For example, "Identification with Video Game Characters as Automatic Shift of Self-Perceptions" by Klimmt et al. (2010) explores video games that have a character/avatar with a strong narrative and how concepts displayed through that strong narrative will be more likely applied to concepts relating to self-perception of the gamer.

This is an interesting gap in the social media research. If avatars and profiles are thought of as being one in the same, then the next step would be to try to study them similarly. Social media research is limited to how users employ profiles to do what they want them to do and what can get in the way, such as others' comments or software. However, video game research focuses on what effects avatar creation and usage may be having on the gamers' identities. Much like social media profiles, avatars are seen as projections of the self. Often, gamers are not just creating an avatar for others to see or for the use of the game; they are creating them to be a reflection back to themselves. Similarly, social media users do not create profiles just for others to see, they also use profiles as a way to understand themselves. If social media research began to treat profiles as mirrors of the users, much like video game research treats avatars, a better understanding may be possible.

5.1.2. Cultural

This theme deals with cultural groups and how they are studied within social media and video games. It includes articles that encompass ideas regarding race, ethnicity, immigrant status, religion, misrepresentations and cultural practices that affect usage, identity construction and perceptions of reality. A representative article of this theme is "Palestine in Pixels" by Sisler (2009). In this article, the author discusses how games are structured to create perceptions of Palestine and Israel. Sisler conducted a content analysis of over 50 video games that dealt with Palestine and/or Israel to see how they framed either or both of these areas. It was found that while strategy games model the past, first person shooter games model the present. These games are possibly affecting how different cultural groups are viewed.

The articles' frequencies were close to being equal, making up slightly more of the social media articles (19%) than the video game articles (11%). Again, a difference is seen between what each category focuses on. The social media articles focus on how different cultural groups represent themselves and communicate online. For example, "Effects of Online Christian Self-Disclosure on Impression Formation" by Bobkowski and Kalyanaraman (2010) explores how social media users may perceive another user depending on how much affiliation with Christianity he displays. "Spinning the Web of Identity" by Nelly and Lemish (2009) centers around understanding how immigrants use social media to define their new selves and also to hold on to their old selves.

In contrast, the video game articles focus on how cultural stereotypes displayed in games may affect identity construction. For example, "What Yellowface Hides" by Sze-Fai Shiu (2006) discusses games that contain hegemonic white norms and how these games may support players constructing their identities in this manner in fear of otherwise being seen as weak or inhuman. Again, the cultural theme reveals some gaps in social media research. While video game research explores stereotyping, social media research focuses on how cultural groups use social media to define themselves and how others may perceive of these definitions. Much like the avatar/profile theme, if social media research focuses more on how different stereotypes are carried out and possibly affecting identity construction, more questions may be answered.

5.1.3. Gender

This theme deals with differences in males and females regarding video game and social media usage. It also includes articles that encompass ideas regarding gender stereotyping and how it can affect identity construction and perceptions

Table 4Stage three: Final search result frequencies.

Database	Search term			
	Social media/online social networks + identity	Social media/online social networks + reality	Video games + identity	Video games + reality
Communication and Mass Media Complete	16	6	10	5
Psychology and Behavioral Sciences Collection	8	0	3	7
Education Research Complete	14	8	5	6

of reality. An article that represents the gender theme is "Even in Social Environments Women Shop and Men Build" by Guadagno et al. (2011). In this article, the researchers compare behavior in the site Second Life, to behavior in the offline world. They compare the kinds of tasks undertaken by women and men. The authors find that online, much like offline, women are more likely to take part in social tasks while men are more likely to take part in independent tasks.

This theme was almost equivalent in social media (7%) and video games (4%), yet the articles included in each follow different paths. The social media articles focus on gender norms online and how closely these practices follow the stereotypical norms in the offline world. For example, "He Posted, She Posted" by Bond (2009) asks which gender discloses more online while "Gender Differences in Social Portraits Reflected in MySpace Profiles" by Magnuson and Dundes (2008) asks which gender talks more about their significant other on their profiles. Gender was the only theme to have an article that listed both video game and social media as a keyword – "Literacy-Lite in BarbieGirls" by Carrington and Hodgetts (2010). Using the definitions consistently in this essay, this article matches more with the video game articles because although it is a game that tries to simulate a social media site, it has no actual connectivity to other users and is more a game for young girls to "learn" about life. "Literacy-Lite in BarbieGirls" and the other video game article, "Women and Games" by Royse et al. (2007), focus more on stereotypes. The first looks at a Barbie game that reinforces feminine stereotypes and only introduces girls to conversational, "girly" language. Meanwhile, "Women and Games" focuses on if girls play video games, why they play and how they perceive of themselves as gamers or non-gamers.

Much like the cultural theme, video game articles here focus more on stereotypes and how these ideals may potentially affect identity formation. The social media articles are focused on how gender differences arise in usage practices and if these practices are close to offline norms. Once again, if social media research focused on the stereotypes that each gender might be affected by while constructing or maintaining identity and trying to understand reality, more valuable insight may be gleaned.

5.1.4. Groups/communities

This theme deals with communities, online and offline, which are not considered gender- or culture-based. It includes articles that encompass ideas regarding online communities, blogs, discussion groups and group identification. It also includes articles related to how specific groups of users or "teams" are formed and maintained. One article that represents this theme is "Dynamic Debates" by Yardi and Boyd (2010). This article explores how users of Twitter find and share news within their groups of friends or groups of interest. They found that while people want to communicate about recent news within their online communities because opinions remain mostly the same, they also like to go outside of groups to speak with people who have contrasting views so they can validate their beliefs to themselves.

The number of articles was also almost equivalent in social media (21%) and video games (19%). One of the video game articles, by this paper's definition, actually belongs in the social media category – "Exploring Success Factors of Video Game Communities in Hierarchical Linear Modeling" by Ho and Huang (2009) because the authors explore online communities that discuss video games. This article is similar to the other social media articles. They explore how members of groups/communities online use the group or how they fit into each group.

Meanwhile, video game articles explore how belonging to certain groups may affect identity construction and/or perceptions of reality. For example, "Massively Multiplayer Online Video Gaming as Participation in a Discourse" by Steinkuehler (2006) tries to show that gamers are not bound to become antisocial because the discourse and function of text in video games are much like that of any other media. "What Games Have to Offer" by Adams (2009) explores how perception of self changes depending on which group a user is playing with at any given time.

In the theme of groups/communities there is a possible gap in social media research. Video game research often focuses around how gamers working within groups may understand themselves or reality differently depending on which group they choose to be in, or if they choose to be in a group at all. Social media research may benefit from exploring how being a part of different online communities affects identity construction and perceptions of reality.

5.1.5. Immersion

This theme deals with how users of video games and social media become involved in the software and realize less that they are immersed in a technologically-created world. It includes articles that encompass ideas regarding time loss/augmen-

Table 5Theme frequencies and percentages.

Theme	Social media/online social networks		Video games	
	Frequency	%	Frequency	%
Avatar/profile	9	21	3	11
Cultural	8	19	3	11
Gender ^a	3	7	1	4
Groups/communities	9	21	5	19
Immersion	0	0	3	11
Motivation/psychosocial	6	14	5	19
Offline/online	7	16	1	4
Production	0	0	2	7
VR	1	2	4	15
Total	43	100	27	100

^a Article that was tagged with both major key terms.

tation, presence felt and connectedness, and how these ideas are linked to identity and reality. An article that exemplifies this theme is "Being in the World (of Warcraft)" by Golub (2010). This article aims to argue that when complicated tasks are at hand, video games are not immersive environments because many users turn down their graphics and sound to better concentrate on the tasks. The author argues that because of this decrease in technology used, there is also a decrease in immersion experienced.

Articles with the theme of immersion were more prevalent in video games (11%) than in social media (0%). Immersion is an interesting theme because there are no social media articles but 11% of the video game articles are regarding immersion. These articles discuss time lost and augmented while playing video games. But they also explore how immersed a player feels at any time while playing. That is—how much does a player notice the "simulatedness" or the technological aspects between he and the game-world? For example, "Being in the World (of Warcraft)" by Golub (2010) focuses on if time spent playing a game can affect the presence that is felt while playing the game. The results point to time not being a significant factor of presence felt; therefore leading presence felt to possibly depend on other characteristics, such as avatar used or the architecture of the software.

The theme of immersion is arguably an important one to social media research, yet no articles in this search focused on social media and immersion. The idea of immersion is closely related to hyperreality. As earlier discussed, the better the video game, the less the mechanical nature can be sensed. While different video games provide different experiences and thus create different feelings of presence, social media may also provide an intense hyperreal or immersive experience. While time loss should be explored as with video games, a more interesting study may focus on how immersed a social media user feels while on a site, and how much he realizes, at any point, the technologically mediated nature of his social interactions, identity construction and reality perceptions.

5.1.6. Motivation/psychosocial

This theme deals people's reasons for using video games and social media and how they relate to personal characteristics such as stress, self-esteem and narcissism. Articles included are those that encompass ideas regarding the effects of these motivations/characteristics both online and offline and on both identity and perceptions of reality. An example of a motivation/psychosocial article is "Resistance Through Video Game Play" by Sanford and Madill (2006). This article explores the idea that video gamers go to their respective games to fill in gaps of success that they cannot experience in their offline lives. The authors argue that avatars in games help gamers experiment with identity, but they still may follow hegemonic ideals.

The motivation/psychosocial theme was close to being equivalently distributed between the social media articles (14%) and the video game articles (19%). While the social media articles center on how different psychosocial factors may predict social media usage and often apply uses and gratification ideas, some of the video game articles focus on how psychosocial characteristics are played out in the games and how game play may alter psychosocial characteristics. For example, "Resistance Through Video Game Play" by Sanford and Madill (2006) focuses on how boys who are unsuccessful in school, use video game to feel successful but to also fight against hegemonic norms, such as school, since it is seen as a feminine authority. "Magical Flight and Monstrous Streets" by Snodgrass et al. (2011) focuses on WOW and if the connectedness to the game and avatar leads the gamer to feel relaxed or stressed in the offline world.

While in general the motivation/psychosocial articles were similar in the social media and video game categories, there were some interesting studies in the video game literature that may help social media researchers. Social media studies could possibly focus more on whether users look to social media to fulfill characteristics that that cannot obtain offline. Furthermore, social media studies could explore whether usage of social media sites cause changes in psychosocial behavioral patterns in the offline world, thus possibly affecting both identity construction and perceptions of reality.

5.1.7. Offline/online

This theme deals with offline views of identity and reality, online views of identity and reality and how they possibly intersect. It includes articles that encompass ideas regarding online and offline norms, usage patterns or decisions and

how offline and online characteristics are studied both separately and together. An article that provides a good example for this theme is "The Real Problem" by Gunkel (2010). The author argues that while many articles may discuss online actions in relation to offline actions, or actions in "reality," authors often do not define what they mean by reality in the first place. With better explanations of what researchers mean when they discuss reality, ideas found online will have a better baseline against which they may be compared.

These articles were more prevalent in social media (16%) than in video games (4%). The articles that make up this category provide an interesting look at the research being conducted regarding social media and video games. Four of the social media articles were theory articles; most of them discussed thinking of social media in a new way. "Relationships and Community, and Identity in the New Virtual Society" by Brown (2011) discusses the fact that the social media field needs to come up with new definitions of ideas like "love" and "friend" because the new online space is different from any offline situation. This is a very close parallel to the ideas of Meyrowitz (1985) as discussed earlier in this paper. The only video game article, "Wii Will Become Silhouettes" by Burrill (2010), explores the level of performance that is needed in order to play video games and the extent to which the "simulatedness" is being further masked with each new innovation. This video game article is similar in some aspects to the video game articles in the immersion theme.

The social media results are interesting because many of them, especially the theory articles, are similar to the suggestions of this paper. It seems that if social media theorists and social media empiricists potentially worked more in harmony, more elusive answers could be elicited. Additionally, the video game article opens up some interesting space to discuss the levels of social media performance and how the more extensive the involvement required, the more identity construction may be affected. Furthermore, it also brings into question whether the quality of social media innovation has far surpassed the ability to mask the "simulatedness" that video games are constantly trying to reach, even if social media has done so unknowingly.

5.1.8. Production

This theme deals with how usage of video games and social media may lead to consumers becoming producers of content. It also includes articles that encompass ideas regarding levels of ability changed by online services' capabilities. An example of this theme is "Playing (With) Videogames" by Newman (2005). This author argues that video gamers are not the anti-social and uncreative people that many think they are. Instead, many gamers produce their own content in online areas that are related to the games they play such as art, walkthroughs and FAQ's.

This theme was more prevalent in video games (7%) than in social media (0%). While social media research contained no production articles, video games had two. This theme is relatable to the groups/communities theme because often video game play spawns online communities that are then responsible for the production of new texts and media. It is likely that one reason why research regarding production in video game is higher than in social media is because of their different historical and contextual factors as discussed at the beginning of this paper. Additionally, the scholarly community of social media has certain goals they are trying to obtain, especially being a newer field of study, therefore meaning that understanding users' productions has just not yet come to the forefront.

5.1.9. Virtual reality (VR)

This theme deals with studies that took place within 3D environments. The participants in these studies were all put into 3D environments and tested regarding identity and reality in the offline world as it is related, or not related, to the online world. An example of a VR article is "Real Behavior in Virtual Environments" by Kozlov and Johansen (2010). This article attempts to prove that immersive virtual environments (IVE) are accurate enough to test online norms by testing to see if actions within the 3D environment were similar to general norms of analogous real world behavior. The VR studies are grouped separately because they do not fit perfectly into one category or the other, per the definitions used in this essay.

The theme of VR was more prevalent in video game (15%) than in social media (2%). This theme was different than the others because, although the articles are separated into video games and social media for consistency's sake, VR really fits into neither. It should instead be thought of as its own category. However, it could open up new areas of exploration. For example, many of the articles list limitations as the fact that results of the study may be skewed because the participants know that they are in an IVE and know that the people or items in that IVE are not "reality." This is an interesting thought because it could mean that users of social media assume that other users they are communicating with on social media sites are "real." Here we look to "Relationships, Community, and Identity in the New Virtual Society" by Brown (2011) and "The Real Problem" by Gunkel (2010) from the offline/online theme. These articles discussed the need to define what is "real" and to reach new definitions for ideas in the online world since they are thought of differently than in the offline world. VR researchers' ideas and methods may be able to assist in answering social media questions regarding identity, reality, immersion, and offline/online since they are already thinking about them in new ways.

6. Conclusion

6.1. Limitations and future research

This exploratory study connected a foundational theory in new media studies and communications with research evidence from three disciplines from scholarly journals published between January 1, 2005 and March 29, 2010. However, like

all studies, there are some limitations. First, only three databases were searched. Future research should include other databases that include fields such as sociology or computer science, and perhaps cognitive neuroscience. Second the methodology used in this study may have filtered key words from many articles that hold valuable information for these purposes.

Future research should expand keywords to include additional topics that have emerged in these areas, such as "violence" and "online dating" sites. While violence is an area that is already being heavily researched regarding video games, there are obviously aspects of identity and reality that come up in these studies for both games and social media that may contribute to this essay's conclusions. Online dating sites could be found to have a significant effect on identity and reality, especially regarding friendship and love.

6.2. Discussion

A systematic analysis of 71 articles on reality and identity as they apply to video games and social media show that these topics warrant more research.

Surprisingly, none of the 71 articles focused on celebrity culture and the first person paparazzi concept for social media. This is a very surprising result seeing that social media sites have arguably become like video games, in that they give users goals much like those goals of celebrities and paparazzi. As a result of this research, four new areas of study are proposed: mirrors, stereotypes, immersion and definitions, with celebrity culture taking an important role in each.

6.2.1. Mirrors

As apparent in the avatar/profile theme, social media research has not explored how profiles reflect users' online identities back at them and possibly affect the users' offline identity construction and perceptions of reality. This should not be confused with the notion that social media profiles reflect a perfect replica of the users' offline lives. As scholars have noted, part of identity construction is inference. People learn how they want to act by seeing how others reply to their actions. This idea is magnified in social media sites. Not only can users create their profiles, constantly changing them whenever an opinion is inferred, users can continuously have their profiles and thoughts thereabout reflected back to them.

It seems that some users of sites like *Facebook*, use their profiles to explain who they are. Social media puts the user in the center, to feel that he or she is the center of a celebrity panopticon, constantly having to change an image to be not only what others want, but also the ideal self he or she hopes to become. Users are in danger of only knowing themselves through their profiles because they think they are the true representations of themselves. This new way of constructing the self and viewing the self as "real" could alter the ways in which people build their identities and how they view actions and consequences offline. Future social media research should ask questions about how the profile, being constantly reflected back onto the creator, affects identity construction, perceptions of self and thoughts of reality in the offline world.

6.2.2. Stereotypes

Another research area that emerges around the themes of gender and culture has to do with how these norms are shaping and affecting users. Video game research encompasses ideas of stereotyping and how these hegemonic ideals could be affecting users. Social media on the other hand, does not. In the consumer- and celebrity-culture-driven area of social media, content is flooded with stereotypical ads, groups and profile options. Users are often forced, although under the illusion of choice, to decide who they are through clichés that in the end only help consumers to better understand them and sell to them. Celebrity culture drives consumer culture because the celebrities can "be" certain stereotypes, users can "relate" to them and thus want to be seen as role models, therefore, encouraging users to purchase the same items with which the celebrities are seen. Possibly not as blatant as in gaming, hegemonic ideals exist in social media. In fact, this makes it even more important to research the hegemonic choices and views that social media users are constantly, but not obviously, surrounded with on a daily basis. Understanding this could lead to richer social media research when it comes to identity and reality.

6.2.3. Immersion

As shown in the immersion, motivation/psychosocial and VR themes, immersion is an important part of video game research, yet absent from social media studies. While video game developers are trying to develop games that decrease the "simulatedness" or "simulacrum" of the software, research indicates that this may be important in social media too. Immersion exists on two levels. The first level is while using the software – users do not even think of it as communicating through any technological device. Yet levels of immersion can affect psychosocial qualities offline that could eventually lead to changes in identity construction and perceptions of reality.

The second level is possibly more worrying, and this harkens back to no longer distinguishing between the real and a simulation thereof (Baudrillard, 1981/1994). Social media software arguably provides an immersive experience so that users may be immersed even when they are not logged in. For example, users of *Facebook* take pictures often because they know that they will be able to create new albums. Phones and other mobile devices almost all now come with apps and capabilities to connect to social media instantaneously. Meanwhile, the users feel that they are just staying connected without realizing their deep immersion. While video game research often explores time loss/augmentation because of play – results could possibly be astonishing if the amount of time people spent immersed in social media and thoughts of social media were known.

6.2.4. Definitions

The final research area deals with exploring the challenges of defining online social interactions. The new social context of online social media calls for new ways of understanding all that is encompassed in the experience, from how one thinks of "friends" to romantic partners, and from "real" experiences to "hyperreal" situations. For example, new definitions of what it means to be "popular" and a "celebrity" may be needed as they apply to understanding online identity. VR research could possibly be another area that can aid in this search. Furthermore, a better understanding of new definitions for this new social media context will allow for all of the other research areas mentioned—mirrors, stereotypes and immersion—to be more efficiently researched.

Appendix AJournals and impact factors.

Journal title	Journal frequency	Impact factor
Journal of Computer-Mediated Communication	1	3.639
Human Communication Research	1	2.2
Computers and Education	1	2.059
Journal of Information Science	1	1.706
Computers in Human Behavior	3	1.677
CyberPsychology and Behavior	6	1.591
Communication Research	3	1.354
Motivation and Emotion	1	1.339
New Media and Society	6	1.326
Media Psychology	4	1.321
Journal of Computer Assisted Learning	1	1.313
Communication Theory	1	1.208
Communication Monographs	1	1.18
Technical Communication	1	1.064
Journal for the Scientific Study of Religion	1	0.929
Sex Roles	1	0.928
Sociology of Sport Journal	1	0.87
Culture, Medicine and Psychiatry	1	0.755
Anthropology and Education Quarterly	1	0.723
British Journal of Sociology of Education	1	0.72
European Journal of Communication	1	0.7
Journal of Adolescent and Adult Literacy	1	0.67
Anthropological Quarterly	1	0.591
Library Trends	1	0.393
Critical Studies in Media Communication	1	0.333
Futurist	1	0.24
Bulletin of Science, Technology and Society	2	0
Canadian Journal of Education	1	0
Communication Quarterly	1	0
Communication Research Reports	1	0
Convergence: The Journal of Research into New Media Technologies	1	0
CyberPsychology, Behavior and Social Networking	4	0
Feminist Media Studies	1	0
First Monday	1	0
Information, Communication and Society	2	0
International Journal of Qualitative Studies in Education	2	0
Internet Research	1	0
Journal of Middle East Media	1	0
Journal of Popular Culture	1	0
Journal of Visual Literacy	1	0
Marriage and Family Review	1	0
Middle East Journal of Culture and Communication	1	0
Mind, Culture and Activity	1	0
Rocky Mountain Communication Review	1	0

(continued on next page)

Appendix A (continued)

Journal title	Journal frequency	Impact factor
Social Research	1	0
Television and New Media	1	0
Visual Communication	1	0
Young	1	0

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13