

Available online at www.sciencedirect.com



Computers and Composition

Computers and Composition 25 (2008) 313-322

www.elsevier.com/locate/compcom

Press Enter to "Say": Using *Second Life* to Teach Critical Media Literacy

Jennifer deWinter^a, Stephanie Vie^{b,*}

- ^a Department of Humanities and Arts, Worcester Polytechnic Institute, 1340 13th Street, Tucson, AZ 85719, USA
- ^b Department of English, Fort Lewis College, 1000 Rim Drive, Durango, CO 81301, USA

Abstract

Online simulated environments directly affect the formation of individual subjectivities through the creation of player avatars. Thus, the power relationships that affect subjectivity formation need to be carefully examined by player-participants as belonging to a system with sometimes homologous, sometimes radically different actions and consequences. In this article, we argue that students need to develop critical awareness of their own subject formation and their positions in new media environments. Such awareness is a necessary component of new media literacy. We further contend that composition instructors can look to *Second Life*, a popular online simulated environment, as a dynamic text to engage students in questions regarding power, ethics, intellectual property, and community. © 2008 Elsevier Inc. All rights reserved.

Keywords: Second Life; Subjectivity; Avatar; Computer game; Video game; Media literacy; Online simulation; Power; Ethics; Composition

1. Introduction

James Paul Gee (2003) argued that computer games, despite their potential educational use, have largely been ignored in academia or examined only for their potential to teach violence.¹ In the meantime, today's students are falling behind in developing multiple literacies and this "dismal performance" has been met with "mechanical instruction methods... and endless multiple-choice testing" that teaches students to memorize, not to think (Gee, n.p.). Such high-stakes testing fails to serve the needs of today's students; instead, increased reliance on

^{*} Corresponding author.

Email addresses: dewinter@email.arizona.edu (J. deWinter), Vie_S@Fortlewis.edu (S. Vie).

¹ Following Ken S. McAllister (2004), we use the term "computer game," rather than "video game," throughout because "it is the presence of computers—not video, which is only one of several components in an electronic game—that defines both the technological platform and the aesthetic of this medium" (p. 39).

multimodal composing activities, including writing activities connected to the use of computer games, would help these students thrive in their media-rich environment. New media theorist Cheryl E. Ball (2006) has found that students need to both analyze and produce multimodal texts to learn and to expand critical understandings of texts (p. 410). Further, a 2006 study by the Educational Testing Service reinforced concerns about students' abilities to demonstrate critical media literacy and rhetorical skills and called for writing instruction that more clearly addresses critical media literacy skills (n.p.). If composition instructors cannot strengthen students' critical media literacy skills through courses that engage students in multimodal production and analysis, then these students will not be fully equipped to critically engage in an increasingly mediated world.²

In this article, we argue that participating in virtual online communities and cultivating player avatars are particularly fruitful activities for students' analyses and production of media in the writing classroom because they often make explicit the ambivalences of new media. We examine *Second Life* as a productive space to theorize subjectivity through the creation of players' avatars and their interactions with a virtual world commercialized by major corporations, populated by volunteer players, and immersed in hegemonic power structures. Finally, we discuss some logistics concerning how to establish virtual composition classrooms in *Second Life*. First, we make some important distinctions between computer games and simulated worlds.

2. Why Second Life?

Gonzalo Frasca (1999) clearly differentiated games from play, noting that although the meanings of game (*ludus*) and play (*paidea*) overlap in meaningful ways—both are governed by strict rules—games are a type of play that end with victory or defeat, gain or loss. Games, then, are rule-based systems with definable, achievable ends. Massively Multiplayer Online Games (MMOGs) such as *EverQuest*, *World of Warcraft*, and *City of Heroes* are games that present participants with a closed system and a series of quests to successfully complete.³ Gee (2003) described games with explicit goals like these as containing multiple principles of learning in ways that sidestep "skills and drills" learning processes. For example, students learn to "micromanage an array of elements while simultaneously balancing short- and long-term goals" and achieve total mastery of one level only to be challenged to undo that mastery in the next, forcing adaptation and evolution of already learned skills (n.p.). These games encourage learning that moves beyond mere memorization, helping players develop sophisticated, adaptable literacies, the kinds of critical literacies students need.

Although Second Life is not a game—it does not have defined ends that determine victory or defeat—it still retains many of the same educational benefits as computer games that ask

² By "critical media skills," we mean the skills necessary to consciously engage with the power structures that underlie how information is conveyed from medium to medium with an understanding of how each affects textual production, circulation, and consumption.

³ Completion of a subset of quests does not necessarily provide closure, however. Although the quests themselves may be completed, the game continues by providing the player with additional quests.

participants to complete goals.⁴ Players must learn to adapt to their environment, co-exist with other players, and demonstrate mastery of the game controls and rules. Instead of presenting the user with a pre-defined set of activities, however, this virtual world allows users to define their own goals through open play. Participants interact in "a 3-D virtual world entirely built and owned by its Residents... inhabited by a total of 9,297,221 Residents from around the globe" ("What is Second Life" 2007, n.p.).⁵ A basic account is free, but to customize an avatar, build materials, or own land a user must purchase the requisite number of Linden dollars, the currency of *Second Life*. The environment offers players a mutable system where they can engage in a series of individually chosen activities whose purposes are undetermined and often ambivalent.⁶

Why, then, have we chosen to write about *Second Life* in this special issue? The answer is threefold. First, many academic institutions have an established presence in *Second Life* that is monetarily and institutionally supported by those institutions. Second, because *Second Life* is a simulated environment, it adapts many of the same interfaces that other MMOGs use. Though it does not feature quests or fixed goals, the look and feel of *Second Life* mirrors popular MMOGs; by extension, *Second Life* in many ways seems closest to a computer game. And third, the fact that *Second Life* is not a game opens up a series of inviting possibilities that would not be possible in a defined, goal-based system. For these reasons, we believe *Second Life* lends itself well to the exploration of subjectivities in virtual communities.

3. Creating the subjectivities of writers/speakers

The traditional rhetorical triangle of writer, audience, and topic comes under considerable strain when one considers postmodern theories of subjectivity. The sovereign individual/writer cannot exist; instead, writers are formed and mediated via discourses of power and, in turn, contribute to those same discourses. Composition and rhetoric scholars are loath to echo Barthes' and, later, Foucault's declaration that the author is dead, for such a death knell seems to disallow action and resistance. However, composition scholars see transformative potential

⁴ Often, cultural narratives and marketing campaigns make it increasingly difficult to delineate between games and simulations. For example, *The Sims* and *Roller Coaster Tycoon* are both marketed as computer games. Conflation of these two types of interactive software systems often occurs in popular discourse because the two systems appear similar, if not indistinguishable, in terms of interface, controls, and aesthetic design.

⁵ Second Life may claim that nine million individuals inhabit the virtual world, but a closer examination of the site's login statistics shows that far fewer residents log in frequently. For example, only approximately 900,000 logged in to Second Life in the last thirty days [Second Life economic statistics (2007). Available: http://secondlife.com/whatis/economy_stats.php (Accessed: December 31, 2007)]. Also, the site only tracks the number of individuals logged in; it does not monitor their activities or their persistence as players over time. Thus, any claims of several million active residents in Second Life may not accurately represent the core group of users who make up the foundational membership of the site, arguably a growing, but still niche, market.

⁶ This is not to imply that the *Second Life* world is completely egalitarian—*Second Life* is a business, and as such, faces similar ethical concerns as those of corporate entities. Peter Ludlow, a professor of philosophy, writes news stories for *The Second Life Herald*; one of his exposés focused on Linden Lab's appropriation of GamingOpenMarket's (GOM) virtual business model, caustically observing that Linden Lab asked users to generate good ideas, then co-opted the successful ones.

in helping students explore subjectivity; their pedagogies that focus on writerly identity often can be sketched out as follows: If students can identify their positions within institutional frameworks, then they can speak as authorities from subjectivities that are gendered, racially bounded, nationally defined, and so on. Michelle Baillif (1997) argued that views of subjectivity tend to be conservative, appealing to the stable identity of modernism. To counter this, she stated that "[t]he goal is to challenge this institutional homology by transforming the classroom into sites of 'cultural studies' and 'critical thinking' regarding the students' own subjectivity and the politics of representation that sustain them... [W]e have not been critical enough" (p. 78). And indeed, the challenge facing an instructor who wants to teach students how to critically inquire about and engage with their own subjectivities is the simple fact that the students' subjectivities are naturalized to them. Their understandings of representation, institutional determinism, and fractured identities tend to be superficial without careful guidance.

The formation of subjectivity in online environments is necessarily different from the subjectivities created offline. To develop critical media literacies, we argue, students need to understand the post-human subjectivities that they create and leave behind in the memory of computerized environments. Media literacy requires students to be savvy about their online representations of self, which can be reproduced indefinitely even without their consent. If composition instructors are invested in teaching students about subjectivity (both empowering and disempowering), then they should expand the conversation beyond the confines of the written essay, often composed for an audience far more limited than that found online. Many students do not recognize the breadth of their online audience; they also are often unaware of the ways their personal information contained online may be used without their consent. Thus, conversations about subjectivity need to include the many writerly spaces that students simultaneously occupy, especially online, with an eye toward increasing students' understanding of how issues of privacy, intellectual property, and other once-embodied concerns have shifted as a result of increased participation in computerized environments. We return, then, to the possibilities of Second Life to help students move toward a fuller understanding of these complexities.

3.1. Subjectivity and the player/avatar

Each *Second Life* player is represented by an avatar that can be customized by changing the avatar's hair color, eye color and shape, facial features, clothing, and so on. These avatars operate as projections of one's own self: "They represent our deepest wishes, aspirations, virtues, and, yes, vices. Nothing is more authentic" (Bugeja, 2007, n.p.). Richard Lanham (1993) depicted avatars as self-fashioned and self-created, a means to experiment "with the constructions and reconstructions of self that characterize postmodern life" (p. 180). These contentions at first seem contradictory: How can one's avatar be at once authentic and an experimental (re)construction of self? Yet there are multiple possibilities inherent in the creation of personal avatars: Some users may fashion avatars intended to mirror their real-life personae, while others may deliberately play with identity through markers of difference. Avatars are, then, potentially complex and dynamic constructions.

Because avatars both reflect and deviate from players' offline identities, students can consider the appearance of their own avatars and how those representations connect to their

identifications with race, class, age, gender, sexuality, and other personal markers. Questions an instructor might ask could include:

- How does your avatar look and dress? Did you pay for extra features or for branded clothes? Why did you decide to create the "look" that you did?
- What gender and sexual orientation is your avatar and how does your gender and orientation affect your interactions within *Second Life?*⁷
- What systems limit your actions, movements, thoughts, and expressions? What have you wanted to do or convey in *Second Life* but could not?
- What is the relationship between what you want to say and the technologies that allow you to "speak" in the game environment? How does typing or using voice-enabled capabilities make communication easier or difficult and why?
- What labor did you have to engage in to play in the environment as you wanted to? Did you purchase items with Linden dollars or script any of your own objects for use in *Second Life*?8
- Have you done anything that you think is transgressive—against the norm? Have you engaged in "griefing," deliberately aggressive or provocative activities, or harassment in *Second Life* and why? Have you ever been harassed there and what was your response?
- What parallels do you see in your everyday life—your "first life"—to Second Life? How does the character you play in Second Life reflect or not reflect your personal subjectivities?

Questions like these give students a heuristic to navigate the complex and shifting landscape of subjectivity.

Coupled with critical examinations of digital subjectivities, such as those explored by Robbie Cooper, Julian Dibbell, and Tracy Spaight's (2007) *Alter Ego: Avatars and Their Creators*, composition students can be urged to consider the complex interplay between real-life and virtual representations. For example, Cooper's photographic portrait of Jason Rowe, who has a rare form of muscular dystrophy, exists in stark contrast to the thirty-year-old's avatar, an imposing robotic biker (p. 3–4). In what ways can Rowe's existence as a physically abled virtual avatar in an online game help alleviate the difficulties he faces as a person with a disability? In what ways is Rowe still limited by his preference for living a virtual life where he is not disabled, not in a wheelchair?

⁷ One interesting aspect of *Second Life* is the default sex characteristics of avatars—in short, avatars initially do not have genitals. One must purchase genitals in order to engage in virtual sexual intercourse or similar activities in *Second Life*.

⁸ As in earlier MOO and MUD environments, users can either participate in the environment as created or choose to help shape the environment themselves. In MOOs and MUDs, participants were often grouped as players, coders, and wizards, a hierarchical system that emphasized those who shaped the environment over those who simply played. Similarly, in *Second Life*, users may use the building blocks of the environment, called "prims," to create materials. All users can create materials in *Second Life*, unlike many MOOs and MUDs where players had to request to be promoted to "coder" by a wizard. However, the ability to build in *Second Life* is a learned skill that differentiates casual players from advanced users. Students in *Second Life* who wish to build will likely need to be taught how to do so; instructors may also have to set aside time to learn to build. The inability to create materials in *Second Life* may emphasize the difference between analysis and production in students' media literacy skills.

These questions, earlier raised by psychologist Sherry Turkle (1995), are ones we still grapple with today. Turkle found that lives online—in particular, those inhabiting virtual personae that did not necessarily reflect offline appearances and traits—could be therapeutic, helping individuals to move beyond the limitations of their offline personalities. She painted portraits of citizens in MOOs and MUDs like "Stewart," who embraced "the chance to express multiple and often unexplored aspects of the self," to play with identities and "to try out new ones" (p. 12). Yet ultimately, Stewart was still limited by the fact that his virtual persona was wholly unlike his real-life persona. As enjoyable as he found existence online, he could not escape life in the real world. Stories like Stewart's and Rowe's prompt us to question, as Lanham (1993) did, the boundaries between our "first life" and our "second life": "What kinds of personae do we make? What relation do these have to what we have traditionally thought of as the 'whole' person? Are they experienced as an expanded self or as separate from the self?" (p. 180).

3.2. Subjectivity, power, and abuse

Our discussion is not intended to be a utopian presentation of subjectivity online, as *Second Life* does not necessarily provide students with a safe haven where they can experiment with identity. Boundaries between controlled educational spaces and sexualized content in *Second Life* can be blurry, and many educators have raised concerns regarding their legal liabilities should anything happen to students while participating in *Second Life* for classroom purposes. Bugeja (2007) argued that instructors are legally obligated to highlight the possibilities of harassment in virtual spaces, because "professors taking students on a 'field trip' to *Second Life*, forcing them to agree to terms of service, may involuntarily circumvent academic principles of transparency, disclosure, and due process" (n.p.). Because adult-oriented communities have thrived here, where nearly thirty percent of all avatars and land may be tied in some way to adult-oriented businesses, students could potentially be exposed to pornographic material (Newitz, n.p.). Though instructors can require that students not visit mature locations during class time, it is less simple to prevent the intrusion of inappropriate material into the classroom space.

Further, as in the material world, there are recorded instances concerning harassment, abuse, and even virtual rape in *Second Life*. However, these phenomena are not unique to *Second Life* and have occurred since the early days of MOOs and MUDs. Julian Dibbell (1993) discussed one instance at length in his article "A Rape in Cyberspace," one of the first pieces to forefront the confusion and betrayal that can stem from virtual abuse. Dibbell portrayed many citizens of LambdaMOO as banded together to punish the abuser in their midst by "killing" his virtual character, Mr. Bungle. While some players disagreed about the appropriate punishment to suit Mr. Bungle's crime, ultimately one wizard in the community killed off the character, and Dibbell noted that "the continued dependence on death as the ultimate keeper of the peace suggests that this new MOO order may not be built on the most solid of foundations" (n.p.). This legacy of vigilante justice and unstable community rules now influences *Second Life*'s "corn field," a space featuring only lonely rows of corn, a tractor, and no hope of escape for individuals convicted of crime (Johnson, 2006, p. 24). While many evil deeds go unpunished in this virtual world, individuals who transgress guidelines established by the Lindens, the *Second Life* gods, are incarcerated in the corn field.

Dibbell's description of Mr. Bungle's punishment pointed out that only a LambdaMOO wizard could kill off the character, and ultimately one wizard chose to "act alone [instead of] not act at all" (n.p.). Similarly, only the Lindens can transport users to the corn field. Such online spaces are not democracies but rather theocracies where a small group of wizards or gods make decisions for the rest of the community. The corn field illustrates an important point for instructors who wish to teach in *Second Life*. Here, the structures of governance are up for debate: "Most of the legal values that Americans depend on in the real world—private property, representational democracy, law and penal codes—can't be taken for granted in these online worlds" (Johnson, 2006, p. 24).

Similarly, instructors must be aware that racism, sexism, and other forms of harassment may be unavoidable; as such, instructors should approach these as teachable moments to help students understand the changes that online environments have wrought on our understandings of privacy and safety. For example, the sophisticated coding system of *Second Life* allows for precise reflections of individuality via the avatar; however, this precision also introduces visual markers of difference that invite open discrimination. Racial discrimination remains a major problem, which remains largely invisible because the majority of avatars in *Second Life* are Caucasian. However, as Wagner James Au (2007) described, changing an avatar's skin color can have serious and immediate effects:

[The skin Erika Thereian wears in *Second Life*] is a staggeringly attractive, astoundingly photo-realistic, young African-American woman... "Well, I teleport into a region," she says, recounting a latter case. "Where a couple people [are] standing around. "One said, 'Look at the n***** b****." "Another said 'Great, they are gonna invade SL now."" (n.p.)

Instructors, then, have an ethical obligation to discuss the types of harassment that may occur in online spaces and how to address them. Such a discussion can lead to conversations about discrimination and the institutional practices that maintain negative hegemonic structures—structures that may not be as visible to students in their material worlds but are very visible in a virtual world. *Second Life* provides an opportunity for students to talk across both material and virtual power structures, the ways in which subjectivities are formed in these spaces, and their own actions or reactions within formative discourses.

Clearly, instructors need to foreground any participation in *Second Life* with strategies for avoiding or extracting oneself from difficult situations and discussions about ethical behavior necessary for critical engagement in online environments. Our understandings of the legal and ethical obligations we face as instructors asking students to participate in virtual spaces are vague, yet this vagueness reflects the ways digital technologies are rapidly changing the foundations of our world. While instructors should be concerned about what might happen in *Second Life*, these experiences allow us to talk with students about hegemonic power structures that often go unnoticed, invisible, in their first lives.

4. The logistics of simulated environments: using *Second Life* for educational purposes

We now turn to hardware-related issues of which educators need to be aware. In other words, presuming that instructors desire to set up classroom spaces in *Second Life*, what should they know to do so? First, a warning: Educational games and environments can be notoriously greedy in terms of the hardware requirements necessary to run them smoothly. Danielle Nicole DeVoss, Ellen Cushman, and Jeffrey T. Grabill (2005) mapped the infrastructural dynamics that help support multimodal pedagogical efforts in the composition classroom by examining the material, technical, discursive, institutional, and cultural conditions that support or prohibit multimodal composition teaching in college writing classrooms (p. 23). For instance, the hardware requirements, such as computers, network bandwidth, and sophisticated graphic cards, necessary to run *Second Life* can be expensive and frequent software updates must be installed.

Our second warning: Maintaining land in *Second Life* is expensive and can be time-consuming. Instructors interested in maintaining a dedicated space for their classrooms may purchase an island on *Second Life*, available at an educational discount. These islands may be closed off to outsiders, preventing unwanted individuals from accessing the classroom or the students (however, the lack of interaction potentially prevents students from learning more about the larger world of *Second Life* and the complex but important concerns brought up in earlier sections). An island is approximately \$1675 for sixteen acres of virtual land with monthly maintenance fees of \$295.9 However, islands offer stability, as instructors can build on the space using "prims," primitive objects that can be linked together to create virtual items which can be bought and sold for Linden dollars. Ownership of items is awarded to the builder or purchaser rather than *Second Life* administrators, so the space, thereby, raises useful questions regarding intellectual property. Once an instructor has set up a space in *Second Life*, students can log on and go through the experience of Orientation Island, where new avatars learn to interact by talking, flying, and teleporting; after completing Orientation Island, students can convene at their classroom "home."

5. Conclusion

Spaces like Second Life are not innocent, neutral tools. They are imbricated in systems of power that affect access, interaction, and corporate interest. Ken McAllister (2004) argued that "the work that makes games what they are in a sociocultural context is dynamic, multidisciplinary, and frequently rendered invisible. Computer games are, in a word, complicated" (p. viii). The complexity of virtual worlds like Second Life makes them useful for pedagogical purposes; not only are the players constantly locked in a struggle to define themselves within the virtual world and, thereby, learn more about their offline identities, but they are also continually enmeshed in a space that is dependent on shifting systems of power. In this article, we

⁹ http://secondlife.com/community/land-islands.php.

have considered the potential challenges of establishing a classroom presence in an already ongoing public environment.

In considering these complications, we hope to highlight for individuals who wish to teach in *Second Life* that Gail Hawisher and Cynthia Selfe's (1991) caution regarding computers in the classroom is still sage advice today: "All too frequently... writing instructors incorporate computers into their classes without the necessary scrutiny and careful planning that the use of any technology requires" (p. 55). Despite all the potential difficulties, however, computer games in the classroom, as McAllister (2004) noted, "do work, particularly rhetorical and cultural work" (p. vii). This sort of critical exploration of cultural boundaries is vitally important for today's students, who already co-inhabit material and virtual places. Though *Second Life* can force students into situations where they must consider how difference and inequality operate even (and perhaps especially) in virtual communities, such situations help them become more aware of how online technologies help maintain hegemonic power structures. At the same time, *Second Life* creates a space for the important work of teaching critical media literacy in the composition classroom by asking students not only to participate in a virtual world but also to help shape it.

Stephanie Vie is an assistant professor of composition and rhetoric at Fort Lewis College in Durango where she teaches professional and technical writing. Her work has appeared in *Kairos*, *The Review of Communication*, and *Community Literacy Journal*.

Jennifer deWinter's scholarship unpacks traditional and new media convergence within global markets. She is particularly interested in mediated cultural flows between Japan and the US, analyzing games, manga, anime, and fan culture as they dialectically transform one another.

References

Educational Testing Service. (2007). 2006 ICT literacy assessment preliminary findings. Available: http://www.ets.org/Media/Products/ICT_Literacy/pdf/2006_Preliminary_Findings.pdf (Accessed: December 31, 2007).

Au, Wagner James. (2007). The skin you're in. *New World Notes*. Available: http://nwn.blogs.com/nwn/2006/02/the_skin_youre_.html (Accessed; December 31, 2007).

Baillif, Michelle. (1997). Seducing composition: A challenge to identity-disclosing pedagogies. *Rhetoric Review*, *16*(1), 76–91.

Ball, Cheryl E. (2006). Designerly \neq readerly: Re-assessing multimodal and new media rubrics for use in writing studies. *Convergence*, 12(4), 393–412.

Barthes, Roland. (1977). *The death of the author. Image, music, text*. New York: Hill and Wang., pp. 142–148 Bugeja, Michael J. (2007). Second thoughts about Second Life. *The Chronicle of Higher Education*. Available: http://chronicle.com/jobs/news/2007/09/2007091401c/careers.html. (Accessed: December 31, 2007).

Cooper, Robbie, Dibbell, Julian, & Spaight, Tracy. (2007). Alter ego: Avatars and their creators. London: Chris Boot.

DeVoss, Danielle, Cushman, Ellen, & Grabill, Jeffrey T. (2005). Infrastructure and composing: The *when* of new-media writing. *College Composition and Communication*, 57(1), 14–44.

Dibbell, Julian. (1993). A rape in cyberspace: How an evil clown, a Haitian trickster spirit, two wizards, and a cast of dozens turned a database into a society. *The Village Voice*, 36–42.

Foucault, Michel. (1994). What is an author? In Theresa Enos & Stuart C. Brown (Eds.), *Professing the new rhetorics: A sourcebook* (pp. 178–193). Englewood Cliffs, NJ: Blair Press.

Frasca, Gonzalo. (1999). Ludology meets narratology: Similitude and differences between (video) games and narrative. Available: http://www.ludology.org/articles/ludology.htm (Accessed: December 31, 2007).

Gee, James Paul. (2003). High score education. *Wired 11*(5). Available: http://www.wired.com/wired/archive/11.05/view.html (Accessed: December 31, 2007).

Hawisher, Gail E., & Selfe, Cynthia L. (1991). The rhetoric of technology and the electronic writing class. *College Composition and Communication*, 42(1), 55–65.

Johnson, Steven. (2006). Brave new world: Virtual law and order. Discover, 27(4), 24-25.

Lanham, Richard. (1993). The electronic word. Chicago: University of Chicago Press.

Ludlow, Peter, & Mark, Wallace. (2007). The second life herald: The virtual tabloid that witnessed the dawn of the metaverse. Cambridge: MIT Press.

McAllister, Ken S. (2004). *Game work: Language, power, and computer game culture*. Tuscaloosa: University of Alabama Press.

Newitz, Annalee. (2006). Scoring with XXX games. *Wired*. Available: http://www.wired.com/culture/lifestyle/news/2006/06/71135?currentPage=all (Accessed: December 31, 2007).

Turkle, Sherry. (1995). *Life on the screen: Identity in the age of the Internet*. New York: Simon & Schuster. What is Second Life? (2007). Available: http://secondlife.com/whatis (Accessed: December 31, 2007).