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Editorial

Games as transformative works

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[0.1] *Abstract*—This special Games issue brings together diverse questions from broadly defined notions of gaming. On some level, all the articles collected here work to reestablish how gaming, in all its variations, is embedded in the social knowledge, meanings, activities, and productions of users and makers.

[0.2] *Keywords*—Fandom; Games; Social practice; Video game

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1. A deceptively simple question

[1.1] With the U.S. release of the Nintendo Wii in 2007, a series of commercials were launched that depicted two Japanese salarymen—clad in suits and driving a tiny car—knocking on the doors of Americans. "Wii would like to play," they said offering up the Wii Remote as they bowed. In one version, the two men ring the door of a white suburban family and proceed to play virtual tennis with them, pausing only to sample the family's lemonade.

[1.2] The light-hearted tone of these commercials—and the seeming techno virginity of the people approached by the salarymen (most don't conform to the prevalent image of a gamer; instead, they are grandparents, mothers, families)—reflects Nintendo's intentions to target a new gaming audience with the Wii. Shigeru Miyamoto explains:

[1.3] While other game makers had felt that there was a future in taking the current style of games and making them more complex and more advanced...We felt that video games should instead include a variety of different elements and a variety of different styles of entertainment that can appeal to a much broader audience. (quoted in Kalning 2008)

[1.4] Nintendo's efforts to attract a wider, more casual gaming audience—focusing on innovation in game play over hardware or technological development (one programmer notoriously called the Wii two GameCubes duct-taped together [note 1])—has sparked a deceptively simple question: What is a (video) game? With the release of next-generation consoles like the Xbox 360 and the PlayStation 3, Nintendo's focus on attracting a broad mainstream audience (with their handheld DS as well as the Wii), and the increase in

production of a variety of games targeting a more casual (or untapped) gamer, the question "what is a game?" is increasingly circulating throughout the industry. (See Bisz's exploration of this question as related to card games in this issue.) Journalists debate the question in reviews and insider podcasts; gamers talk, blog, and post about it on message boards; developers discuss it at conferences and meetings. Andrew Pfister (2007) confronts this question in his review of the game *fIOW*:

[1.5] The massive success of the Nintendo DS (and so-far seemingly similar success of the Wii) has given rise to a new debate: What constitutes a "videogame?" *Electroplankton*, *Nintendogs*, *Brain Age*...all of these definitely have gamelike elements, but because they deviate so far from what's always been considered the norm, everyone is wringing their hands over how to properly classify them.

[1.6] What is considered the norm for a video game is partially molded from early arcade games. For example, *Breakout* (Atari, 1976) pioneered a style of game play that involved clearing or "beating" one level and then moving on to the next, usually harder level, a game play mechanic that has since become a fundamental structural component of many video games (Kohler 2004:20). Now when games lack any sense of linear movement or progression through stages, clearly defined goals, achievable tasks, a competitive high score to beat, or a clear ending when credits can easily roll, electronic play challenges the established definition. For example, with the Nintendo DS game *Nintendogs*, users spend their time raising and caring for a dog, similar to a Chia Pet. With *Wii Fit*, the user goes through a series of exercise routines, keeping track of weight loss and progression (note 2). With *fIOW*, the user navigates a fishlike avatar through a sea, eating and evading other creatures on a quest to evolve (note 3). (See Soderman's discussion of *fIOW* in this issue.) Pfister (2007) notes that *fIOW* "can be fairly and simultaneously described as a 'glorified Pac-Man,' an 'interactive screensaver,' or 'playable last track on a Sigur Rós album,'...fIOW is more of an entertaining diversion than what we're used to calling a 'game.'" Video games that involve a kind of play that may be more a form of experimentation, with few set goals or even clear boundaries, perplex the categories that consumers and producers use to develop, market, play, and experience games. Amid debates of whether the game is even a game, journalists have begun to refer to these types of video games as nongames or metagames.

2. What is a game?

[2.1] Games have matured from the high-tech do-it-yourself hobby of technophiles to a dominant and pervasive sector of the worldwide entertainment industry. In the process, games have begun their inevitable contribution to social science research. The self-reflexiveness of the question "what is a game?"—which has been circulating among developers, journalists, fans, and researchers—provides an opportunity for exploring more than just definitions or categorizations. This question demonstrates, even insists, that gaming and play are intensely social activities, overlapping and interconnected experiences

shaped by cultural and historical contexts. Video games, as interactive entertainment or education, are enmeshed in our everyday lives. As a mass media commodity situated at the nexus of inquiries about technology, virtuality, mobility, and flux, video games affect the formation of subjectivities, participate in creating and supporting new forms of labor, and work to mediate and structure daily experiences. The growing popularity of games—they are now merging with mainstream practices and broad audiences, as the Wii demonstrates—makes them a particularly valuable site from which to engage questions pertinent to the contemporary moment, simultaneously opening up rich and varied approaches and questions for researchers and fans. If within the industry debates continue over what the video game medium is defined by and capable of, then social scientists will be forced to consider the broad social nexus that surrounds forms of gaming and will no longer be able to pigeonhole game studies into comfortable questions about online communities—for example, those surrounding games such as *Second Life* and *World of Warcraft*—where sociality seems assured and easy to assess.

[2.2] This special Games issue of *Transformative Works and Cultures* brings together diverse questions from broadly defined notions of gaming. On some level, all the articles collected here work to reestablish how gaming, in all its variations, is embedded in the social knowledge, meanings, activities, and productions of users and makers. Three articles in the Praxis section (Allen, Carlson, O'Donnell) deal directly with questions of the production of value and meaning in games. Allen argues that the meanings produced by users of *America's Army* and the Virtual Army Experience (VAE, the Army's touring experiential cinematic recruitment tool) often diverge from those intended by the Army. Allen reveals that even employees of the VAE produce their own diverse understandings and meanings that may be contradictory negotiations of those presented to them through their work at the VAE. Allen demonstrates that these textures, with their divergent, even conflicting, meanings, may be revealed through an ethnographic methodology that insists on attention to local, on-the-ground experiences. He thus valuably demonstrates the importance of a research perspective that moves beyond the text of a game to the everyday realities of game makers and users. Carlson similarly argues that meaning and value are negotiated at various points along the life of a game, and in particular, she explores the ways that game journalists mediate and add value to games through the production of news reports, reviews and previews, game critiques, and evaluations. O'Donnell, like Allen, is committed to an ethnographic methodology and uses his 3 years of participant observation at game companies in the United States and India to explore notions of work and play as experienced by game developers. O'Donnell is ultimately concerned with examining creative collaborative practice among game makers, in particular developers' drive to understand the structures that underlie the games they play and the games they produce.

[2.3] Chen and Underwood both shift attention to the ways users create gaming communities and the methods and means that gamers use to maintain the boundaries of these communities, often through the production of expertise and social capital. Whereas Chen is interested in the ways *World of Warcraft* gamers perform and enact social capital during specific instances of ritualized game play (such as endgame boss battles),

Underwood explores similar issues among a group of tabletop role-playing game (RPG) players. Although Chen's participants meet virtually and Underwood's sit face to face, the practices these groups use to police community membership, perform identity, and enact expertise during play are similar. Slater, on the other hand, is more interested in the ways members of a community are brought together through shared nostalgia for adventure games to produce, often collaboratively, their own mods or remakes. Slater also examines the way these modding activities, similar to the remaking and repurposing of material seen in fan fiction, may challenge or question our contemporary understandings of authorship. Driscoll and Diaz's article turns toward a historical perspective of gaming activities and experiences to explore the production and impact of chiptunes (music produced by fans with the microchip technology found in early video game consoles and home computers). For Driscoll and Diaz, the production of chiptunes, like the adventure game mods and fan fiction discussed by Slater, reflects a creative appropriation of game technology and materials that is typical of gaming and computer users and communities.

[2.4] While extending attention to fan production, the Symposium articles in this issue continue these themes by tackling a diverse range of gaming practices, modes, and methods, from console gaming to playing tabletop RPG card games to live-action role playing (LARPing). Bisz, in his examination of collectible card games, questions the nature of play and the notion of a game when winning is not the object of fans' interests. Bryant uses a comparison between tabletop RPGs and other genres, like video games, to argue that tabletop RPG games may share more in common with fan fiction. Bryant also echoes Bisz's and Slater's interest in the way fan productions may work to challenge or complicate corporate control of game narratives, assets, and experiences. Soderman similarly discusses the value added to games through free fan labor and mods—touching also on some of the themes addressed earlier by Carlson and O'Donnell—and the complicated relationships that may develop between producers and consumers when gamers' leisure "work" is co-opted by corporations. Odom continues Bryant's comparison between genres by discussing the ways LARPing is different from tabletop or computer RPGs, particularly through means of materiality, such as touch, personal interactions, costumes, gestures, facial expressions, and environments. Odom argues that this materiality, despite the interactive nature of digital games, continues to offer gamers a more textured, realistic narrative engagement and play experience. In contrast, Brooker explores, from a personal examination of his history with early 8- and 16-bit games, the impact that contemporary graphics (which often tend to photorealism) may have on gamers' personal connections to story worlds and creative lived imaginations of game spaces. Brooker argues that gamers are more fully able to engage their imaginations with game materials when graphics and environments remain abstract and open to interpretation. Beck and Herrling's exploration of the self-inserted Mary Sue figure is also interested in the ways fans add materials and imagination into games, thus shaping new readings and responses. In particular, they discuss the way Mary Sue, a fan-produced figure who acts to mold the narrative world to her own interests, operates or functions differently within console and tabletop RPGs. Phi continues this attention by discussing his own personal responses to caricatures of Asians in video games. However, his

focus on the politics of representation in games simultaneously addresses culturally shared stereotypes and the way these representations are communicated at large to gamers as they play.

[2.5] Each article in this issue reveals the way gaming practices, despite their diversity, are all, in various ways, shared activities: whether a gamer keeps in touch with her brother in St. Louis over Xbox Live, forms a bond with anonymous clan members while playing *Resistance 2: Fall of Man*, posts a question to Gamefaqs.com, or trades gaming cards on eBay to complete a set. In contrast to the stereotypical image of the antisocial lone gamer, these articles all position gaming as social processes that involve building communities, creating and maintaining social networks, collaborating (and perhaps exploiting) users and makers, and producing the shared and negotiated understandings, meanings, and practices that develop among communities of gamers and fans. Participatory culture isn't new; consumers and audiences have never been passive. Yet this term invokes a renewed awareness that media and commodity consumption is an active process, an understanding that helps move researchers away from theories of the past that cast viewers, users, and audiences as passive receptors. Instead, as these essays show, we are learning to acknowledge how social participation and active production—of meanings and experiences as much as of concrete fan-made work—are embedded in all acts of gaming.

3. A question of fans

[3.1] It could be argued that it is difficult, if not impossible, to talk about video games without talking about fans, particularly if researchers acknowledge that games, while they exist as objects, commodities, and things, are embedded in everyday realities. Games are imagined, produced, purchased, unwrapped, played, experienced, and reimagined. Whether this happens alone or in groups, over wires, or in person, games are much more than code on a disc that, when inserted into a reader, produces images, sound, and text; their interactive nature implicates users in the game's story world, play mechanics, and structure. Because games come into existence only through user interaction, researchers must acknowledge that games are social experiences and not simply still-life texts.

[3.2] Much of the academic literature on fandom has tended to focus primarily on concrete creative production, such as mods, walk-throughs, fan Web sites, fiction, newsletters, and narratives, as well as fantasy making that are theorized as important aspects of being a fan and participating with fan culture. Yet because video games are used in diverse ways and by diverse groups of people—from a hardcore *Gradius ReBirth* gamer to a retirement-home *Wii Sports* enthusiast—researchers must expand their notions of what constitutes a fan. Fans may be consumers as equally as they are actual producers, be they journalists, programmers, or art designers, but a firm distinction between consumer and maker increasingly evades us. Although gamers are often transformed into fan creators who produce fan fiction, mods, and artwork, sometimes the only thing that a fan creatively or actively produces with or through games is enjoyable leisure time, an activity no less worthy of exploration. Fans, broadly conceived, are insiders. They move in and out of communities

and related social activities, and they maneuver through complex game and social worlds whether they are producing machinima of jumping *Halo* avatars or arguing with a store clerk over the new *Madden* upgrades. Researchers must be able to follow fans if they are to present a thorough and useful analysis of their experiences, social activities, and meaning-making processes.

[3.3] The articles in this issue confront fandom in its many forms. Whether or not the contributors use the word *fan*, each explores games and gaming as situated social experiences and activities that happen only with and through users. *Transformative Works and Cultures'* focus on merging academic research with fan work is the optimal space to present a dialogue between researchers and fans, and to facilitate the breakdown that is always occurring between those who research and those who are researched. The various articles in the Praxis and Symposium sections, along with the Interviews, should be read as a richly juxtaposed conversation among formal academic work and more personal or editorial writing. They also comprise a productive meeting point for the variety of voices, experiences, and perspectives that make up gaming and fandom experiences.

[3.4] Video games, as well as gaming and play more broadly conceived and experienced, demand that as both researchers and fans, we explore questions that continue to challenge our preconceptions—and fears—about the ways people use, negotiate, and appropriate technology and media. This issue supports gaming as a valuable arena for exploration and research that can contribute to an understanding of the relationships we make to, and find mediated by, global flows of technologies, commodities, images, and texts. It valuably illustrates the range of local processes of negotiating meaning, practices, and patterns that we utilize in our everyday lives to make sense of the world, our selves, and others around us.

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5. Notes

1. During the Game Designer's Rant at the 2007 Game Developer's Conference (GDC), *Maxis* programmer Chris Hecker made this now-famous statement; he later issued an apology (see Boyes 2008).
2. Nintendo has forbidden Miyamoto from discussing any of his personal hobbies with the media because many recent Nintendo DS and Wii games, such as *Nintendogs* and *Wii Fit*, grew out of Shigeru Miyamoto's own interests: raising a family dog, getting his wife and parents to play games (Lewis 2008).
3. The game play of *fIOW* does utilize a style of advancement or progression through levels, typical of many other games. As the gamer's avatar consumes objects in the sea around it, its appearance evolves, and by eating the right watery element, the user can dive deeper to harder levels of play. These deeper levels are differentiated by a changing color scheme and the presence of different kinds of creatures. Eventually, a boss battle is reached that, when won, ends the cycle, and a new creature is born. The uniqueness of *fIOW* might be users' ability to return to easier levels whenever they find the game too challenging. The debate continues about whether *fIOW* is a game, even though it possesses many established video game elements.

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Praxis

The Army rolls through Indianapolis: Fieldwork at the Virtual Army Experience

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[0.1] *Abstract*—This essay takes an ethnographic look at the individuals and institutions associated with the development, production, and implementation of the Virtual Army Experience (VAE), a mobile mission simulator that travels across the United States to venues such as state fairs and air shows. As an explicit aid to Army recruitment and interaction with the public, the VAE is an interesting nexus point that often channels public anxieties surrounding the medium of the video game and its role in the militarization of society. Here, I present my own experience of doing ethnography at this site, describing how it is received by visitors and interpreted by its employees. By means of the example of the VAE, I argue that polarizing media reports and academic criticisms that pit the processes of militarization against critical reflection of those processes are counterproductive and result in silencing more nuanced and thoughtful critical reflection that is already present at sites such as the VAE.

[0.2] *Keywords*—*America's Army*; Army Experience Center; Ethnography; Marketing; Militarization; Military recruitment; Propaganda; U.S. Army; Video game

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1. Introduction

[1.1] Among brown, arid mountains, a scene repeats itself ceaselessly: reports tell us that "a well-armed genocidal faction in the city of Nradreg has surrounded a group of humanitarian aid workers and refugees who face starvation and imminent attack. This enemy faction has rejected all diplomatic efforts to negotiate safe passage of relief supplies. As part of international relief efforts, a combined U.S. Army air, sea, and ground task force has been ordered to use appropriate force to reach the remote compound." Helicopters swoop, missiles fly, and after intense fighting, a convoy of troops arrives with supplies. The unnamed enemy lies defeated. But as if caught in a time warp, minutes later, this Sisyphean scene begins anew.

[1.2] Although the above plot may sound hazily familiar, this is not a news story. It is not the summary of a movie; nor is it the plot of what most people would think of as

a video game. It is, rather, the backdrop of the cinematic action inside the Virtual Army Experience (VAE). The VAE is one of the latest developments in the Army's push to market itself in a new, positive light, and it is unabashedly an aid to Army recruitment. Launched in January 2007, this mobile mission simulator is open to the public at locations across the United States, presenting a kinetically engaging battle scenario to individuals who visit large public events (figure 1). These events are often air shows featuring well-known military teams such as the U.S. Army's Golden Knights, the Navy's Blue Angels, and the Air Force's Thunderbirds. The VAE has also visited NASCAR races, as well as fairs, theme parks, and other festivals.



Figure 1. *An exterior view of the Virtual Army Experience at the Indianapolis Air Show (photograph by the author).*

[1.3] In order to learn more about the VAE, I spent 3 weeks during the summer of 2008 living in a Motel 6 in southern Indianapolis, making daily trips to the Indiana State Fair and the Indianapolis Air Show. My journey to Indiana and the VAE goes back much further, however. It began with a lifelong obsession with video games, but my research on what is known as the Army Game Project was the substantive reason for my visit to Indiana. Although it is best known for its video game franchise, *America's Army*, the Army Game Project encompasses much more than just the *America's Army* video games themselves (note 1). It is a network of institutions that use the same animations and artistic assets visible in *America's Army* to produce simulation tools that aid in visualizing weapons systems, training enlisted soldiers, recruiting potential soldiers, and winning the hearts and minds of possible enemies of the U.S. Army. The VAE is one of these tools geared toward recruitment.

[1.4] The institutions that inform and carry out the development of these games and products, endeavoring to create fans of both the Army and Army products, have been my primary field sites. Although I consider myself a native fan of first-person-shooter games like *America's Army*, along with role-playing games and strategy games such as *Oblivion* and *Medieval II: Total War*, my interactions with the Army soldiers, game

developers, marketers, and simulation experts within this military entertainment complex (Lenoir 2000) have not been from the point of view of an insider. I often play video games obsessively, but this does not make me a video game developer or marketer; I am the son of a Navy veteran and have family and friends in the armed forces, but nevertheless, I am an outsider when it comes to things military.

[1.5] As an outsider, I chose to look at the internal workings of the Army Game Project to trace the connections and meanings of this project across the wide spectrum of actors invested in the development, marketing, and presentation of this hybrid product known as *America's Army*. As an anthropologist, it was crucial for me to approach this topic, politically laden as it is, as empathetically as possible in order to understand the actors' varying positionalities. I thought it was important since academic publications and documentary films on military-themed and -funded games seem to refuse any kind of agency besides outright dissent to those involved in the production and consumption of such media. Instead, academics largely position the military gamer as a passive subject that uncritically accepts the array of messages in military-themed games (Huntman 2000; Stahl 2007). While I do not deny the utility of critiques of state power as exercised through entertainment and propaganda, in this article, I argue that these kinds of approaches to the Army Game Project and militarized gaming in general have the potential to be counterproductive, silencing more nuanced and thoughtful critical reflection that is already present among those who actually engage with such media on a daily basis.

[1.6] An early ethnographer of the player communities of *America's Army*, Zhan Li, makes a similar argument in his master's thesis, which highlights how *America's Army* players do not behave as mere passive subjects uncritically accepting the messages the Army wishes to project through the game (2003:133–37). Instead, groups of players continually reinscribe the game with new meanings that are divergent from the official Army message. As I will show below, divergent individual and institutional interpretations regarding the meanings of Army Game Project products are apparent even among the employees of the Army Game Project itself.

2. A virtual test drive

[2.1] Before visiting Indiana, I spoke with Mark Long, CEO of Zombie Studios, one of the developers of the VAE. He described how the VAE integrates virtual reality with physical elements:

[2.2] It has kinetic hammers that, when an explosion goes off, rock the Humvee [figure 2]. And gas action weighted recoil mechanisms on the weapons. So you get this kinetic integration. You know, when you're trying

to physically control the muzzle climb on a weapon, shooting in a simulation allows you to suspend disbelief more. Suddenly that physical integration into the virtual environment takes you in and creates a greater sense of presence, which is really cool. And then there are air cannons and audio, the whole thing. So it's a lot of fun. They have two of these systems and they bring them around to air shows and NASCAR, and men that are there— young men and women—they can give their email address and then go through and try it, and a recruiter can follow up to see if there's any interest. You know, you don't really decide to join the Army because you went through VAE. But you get to try something cool with your friends for about five minutes and you give up your email address for it, so it seems like a fair deal. (Long, personal communication, September 28, 2007)



Figure 2. *Mock-up, life-size Humvees inside the VAE (photograph by the author).*

[2.3] It took a year, but finally I was on my way to get my fill of this experience firsthand, to see whether or not it really is a fair deal. As I blearily stood in the Atlanta airport waiting for my transfer flight after a grueling red-eye, I had my doubts when a soldier in the Army National Guard limped to the front of the line, everyone's sleepy eyes on the back of his head. He was dressed in full uniform and carried a pack on his shoulder; he also wore a neck brace and used a cane to walk. My self-pity instantly trivialized, I told myself this was the beginning of my fieldwork with the VAE; I wondered whether this returning injured soldier was perhaps a darker face of this multimedia Janus (figure 3).



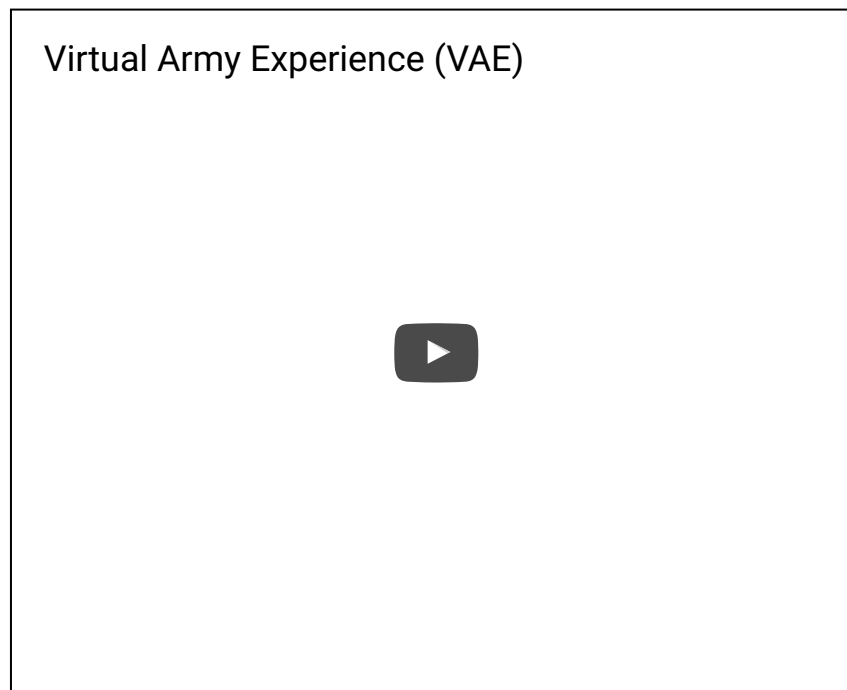
Figure 3. Drill sergeants provide entertainment for visitors waiting in line outside the VAE by challenging them with push-ups for Army gear (photograph by the author).

[2.4] The visitor, of course, would never see this side of soldiering represented at the VAE, which sits at the Indiana State Fair among the General Motors and Saturn tents, a trailer promoting biofuels, and the State Fair's 4-H building. The physical shell of the VAE is part tractor trailer, part inflatable building, and it is visible across most of the fairground. Huge fans in the back of the structure must constantly be kept blowing, lest the entire thing collapse. The VAE comes in four sizes, each named according to Army unit designations: Alpha, Bravo, Charlie, and Delta. These configurations travel across the country, predominantly to events in more populous areas of the country that have traditionally served as a base for Army recruitment, such as the South and the Midwest. Alpha is the largest configuration and Delta the smallest (accommodating only about 5 people at a time), but Bravo and Charlie (which hold between 15 and 20 people each) are the most typical versions, each collapsing to fit within three full-size tractor trailers. Alpha is essentially a combination of Bravo and Charlie, and when these two configurations come together at events such as the Indianapolis Air Show, a huge interior space is fashioned. As an Army Game Project public relations press release describes it, within this structure, the VAE

[2.5] provides participants with a virtual test drive of the United States Army. The core of the 9,750-square-foot VAE is the *America's Army* computer game, rendered with state-of-the-art Army training simulation technology to create a life-size, networked virtual world. The VAE highlights

key Soldier occupations, Army technologies, operating environments and missions, within a fast-paced, action-packed, information-rich experience that immerses visitors in the world of Soldiering. Participants employ teamwork, rules of engagement, leadership and high-tech equipment as they take part in a virtual U.S. Army mission. (Army Game Project 2008)

[2.6] Such press releases emphasize the virtual reality part of the Virtual Army Experience, but in fact most visitors spend a significant amount of the time outside the actual simulation. The wait outside can be as short as 20 minutes, but has reportedly been as long as 4 hours; the typical length of time spent inside the VAE is about 30 to 40 minutes. To occupy the time during the wait, Army recruiters and drill sergeants stand around, ready to chat with people about the Army or give out Army T-shirts, hats, and even copies of the *America's Army* Xbox video game to people who do enough push-ups (figure 3). A representative from the Army-sponsored Top Fuel dragster racing team is there as well, taking complimentary photos of anyone who wants a picture taken with the car (figure 4). This is a popular option for kids who cannot enter the VAE, as the posted minimum age is 13 years old (note 2). Near the building, videos explain the VAE's fourfold process: registering, obtaining the mission briefing, playing the simulation, and participating in the after-action review. Video teasers for the VAE, such as the one shown in video 1 below, play on large screens on top of the trailers:



Video 1. *A Virtual Army Experience teaser video.*



Figure 4. *The Army Top Fuel Dragster outside of the entrance to the VAE at the Indiana State Fair (photograph by author).*

[2.7] Finally, visitors are able to walk up the short set of stairs and enter the air-conditioned registration lobby, where they are greeted by several attractive college-aged women standing behind a counter with computers (video 2). They ask everyone a series of required questions: Are you interested in learning about the Army? Have you or your family ever served in a branch of the military? They also collect more basic information, such as an individual's address, telephone number, e-mail address, and level of education. They take each visitor's photo and present each one with a plastic Virtual Army Experience identity card with the visitor's picture, name, and zip code, which slides inside a neck wallet fitted with an RFID sensor. As people wait for everyone in their group to finish with registration—a process that takes up to 10 minutes—visitors can kill some time by playing a LAN version of *America's Army* at computer stations in the center of the room. For most, this is their first time to play the game, and most of the time visitors spend playing is devoted simply to learning the basic interface of the controllers. For people like me, who are casual but not obsessive players of *America's Army*, the lobby of the VAE is probably the only place where they have ever dominated at the game (video 2).

Virtual Army Experience



Video 2. *America's Army Real Hero SGT Tommy Rieman gives a video tour of the VAE.*

[2.8] Once everyone is registered, a man introduces himself to the group as a subject matter expert (SME). He invites everyone to stand in line as a group and quickly explains the weapon systems that are simulated inside the VAE, such as the Black Hawk helicopter and Humvees mounted with CROWS (Common Remotely Operated Weapons System). The SME tells the group that he has served in the Army—he may have deployed to Iraq or Afghanistan—and if anyone has questions about the VAE or the Army to ask him at any time. He then opens the door that leads to the interior of the VAE and a huge, dark space filled with life-size mock-ups of Humvees and a Black Hawk helicopter (video 2). Before people can take their seats inside these vehicles, however, the SME directs everyone to watch a 5-minute video in which the group—now referred to as a squad—is briefed on the upcoming mission. In this video, a colonel and several officers describe the scenario that I outlined to begin this paper, using the official-sounding technical vocabulary of the Army. Regardless of what they are saying, which might be difficult for the average nonmilitary person to completely understand at times, the seriousness of their tone and the dramatic music set the stage for the upcoming mission (video 2). At the end of the video, the SME shows the squad a map of the area that displays the critical points where everyone will have to be careful during the mission. He then instructs people how to identify civilians, tells everyone not to shoot at them, and directs the squad to take a seat in one of the vehicles.

[2.9] Unlike roller coasters or motion simulations found in theme parks, there is no overall consensus among visitors about which seat or which vehicle is the best for the

experience. Although it is not visibly apparent, shooting from the Black Hawk helicopter, as opposed to the Humvee, is quantitatively more difficult. Sometimes SMEs try to preempt complaints about the Black Hawk being too hard by framing it as a target practice challenge in their briefings beforehand. This "are you good enough?" kind of framing typically encourages younger men to sit in the Black Hawk mock-up. Guns, properly weighted and appearing as they would in real life, are mounted to the vehicles (figure 2), and the M249 SAW turret guns at the tops of the Humvees tend to be popular. After standing in line for over half an hour, though, many forego standing to shoot these, choosing instead to sit in the seemingly less glamorous passenger and rear seats of the Humvees. This is fine—I contend that part of the purpose of the VAE is to introduce the Army's technologies and weapons systems to the general public so that civilians would, for instance, be able to make a more informed decision as to which part of a Humvee is better to ride in.

[2.10] After the SME starts the simulation, squad members can fire the air rifles mounted to the vehicles. At this point, there are no targets, and a montage of scenes, accompanied by heavy metal music, appears on the three large screens in front of each vehicle. The montage shows missiles launching, Army helicopters starting their run to the battlefield, and HALO parachutists making their jump. Finally, the montage changes to an aerial view that swoops down to the squad's position, and the camera goes into the virtual Humvee, bringing everyone a first-person perspective, as if they are viewing the action from their vehicle. Although there is no actual driver, the vehicle starts moving on-screen, and a physical rumbling from the vehicle simulates movement. The screens show civilians who are running away; although the SME tells visitors not to shoot at them, some (including me) do anyway. The virtual civilians, however, do not react in any way and keep on running. Sometimes if visitors persist in shooting at civilians, the SME threatens to remove them from the simulation.

[2.11] But soon, several men with guns run out, crouch in the middle of the road, and start firing their weapons in what appears to be the direction of the vehicles. Most of the time, the squad swiftly takes them out, but an enemy jeep drives up soon after. After taking a few bullets, the jeep explodes, creating a vibration that can be felt from the seat of the Humvee. After a few minutes of this, some people begin to realize that there is nothing the enemy can do that would hurt them—that they are a spectator to the action rather than an active agent in a game. At least, this was my feeling once I realized I was not playing a game with the potential to lose, but was instead fighting a pushover enemy that was going to let me win no matter what. Still, I felt it was fun to shoot the enemies in this cinematic target practice. The 7 minutes usually go by swiftly for most, and the convoy crosses a bridge and arrives at the refugee camp, the objective of the mission. Try as one might try to shoot the refugees and aid workers (yes, I have tried, along with countless other visitors), nothing happens, and

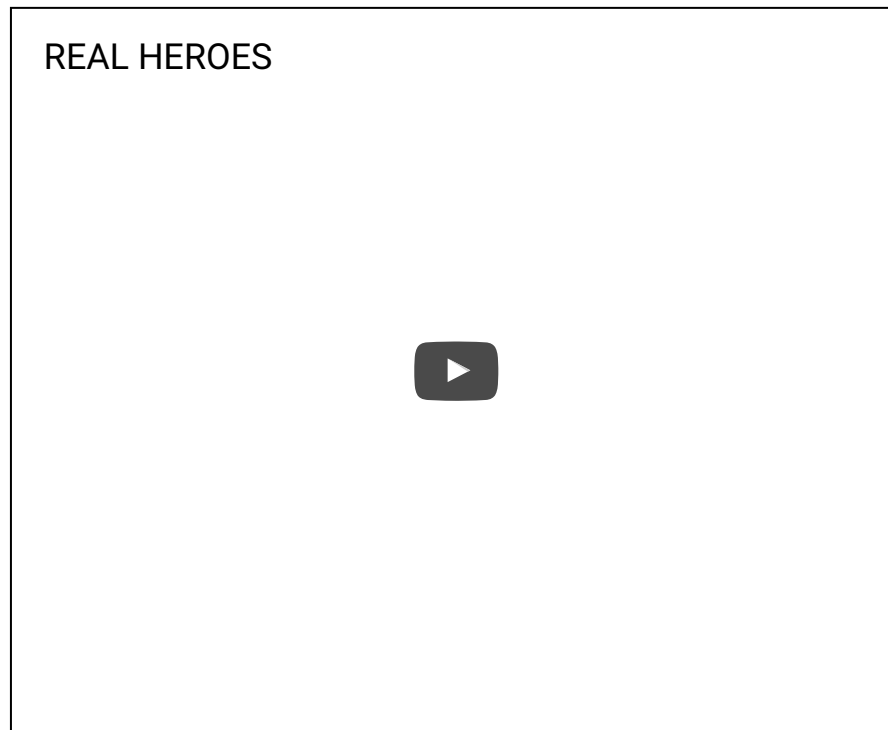
participants sadly realize that their weapons are no longer effective. One visitor, blogging on the technology news Web site CNET, describes a similar experience of the simulation:

[2.12] I had fun during the intense but short experience. It felt surprisingly real, with the gun and Humvee shaking and rocking wildly as I shot at terrorists on a huge screen. Unfortunately, it didn't really present the same level of risk most video games offer. As far as I could tell, nobody in the simulation died or got hurt. Sure, bullets flew and bombs exploded, but nobody lost a life and had to respawn, or any other of the typical game conventions you'd expect from an FPS [first-person-shooter] or a light-gun game. It was like I was playing through an Army mission in god mode. (Greenwald 2007) (note 3)

[2.13] Although some may find the idea of shooting at civilians appalling, whether or not they are virtual, I would contend that most people do not do it out of spite or as a result of any "corrupting" influence of video games. Rather, visitors do it to test the limits of believability in this virtual environment, to push back against and reappropriate the scripted narrative that is thoroughly entrenched at the VAE. The act of shooting at civilians was the most powerful and common mode of speaking back to authority I witnessed inside the VAE. The inability of civilians—or, for that matter, players—to die proved to be disappointing to many, especially regular gamers; it punched through the logic of the claim I often heard during my time at the VAE that "this is as close to realistic combat as you can get outside of going to war."

[2.14] As the simulation ends, the voice of the SME directs everyone to exit the VAE structure to a small tent, where he conducts an After Action Review (video 2). At these reviews, the SME shows the squad images that he indicates were taken during the game. These images do not vary, nor does the essence of the SME's review, which conveys to the squad that they did a good job but need to work more on communicating with other members in their vehicles. At this point, the SME has the group watch another video, this one about an actual Army soldier who was awarded a medal (video 3). The video explains the activities of this individual's heroic efforts in the face of combat, calling him a "Real Hero." Then the Real Hero enters the tent as the SME introduces him to the group. This is one of *America's Army's* eight Real Heroes, common soldiers chosen to represent an ideal of achievement, an individual whose service is a model of aspiration. The Real Hero tells the group more about his experiences in the Army, hands out a Real Heroes action figure made in his likeness to a member of the group (usually to the youngest-looking visitor or to an individual who indicated at registration that he or she would be interested in joining the Army), and makes himself available to sign autographs or chat about the Army. The SME directs

people to remove their neck wallets but to keep their VAE ID cards, and as visitors return their wallets, they are given a copy of the *America's Army* PC game attached to a Virtual Army Experience neck key chain. Visitors walk away to the rest of the state fair, perhaps going to the 4-H building or the dog show nearby.



Video 3. *A video explaining the combat actions of Real Hero SFC John Adams.*

3. Embodying the Army: Real Heroes and SMEs

[3.1] As the above description indicates, the Virtual Army Experience cannot be reduced to a singular kind of experience or a pithy description of what it does or is; rather, it communicates a variety of messages through different channels and episodes, and it does so not simply with a unidirectional form of information dissemination, as in the traditional understanding of propaganda (see also Li 2003). The experiences of each visitor, of course, vary depending on the individuals present, the venue at which the VAE is presented, the size and configuration of the VAE, and an infinite number of other factors, but the Army predictably seeks to frame the experience in a highly scripted manner that communicates a positive message to participants (especially teenagers) about the career opportunities available in the Army. It does this not only through multiple videos, but also through use of *America's Army*, the VAE simulation, and multiple recruiters, drill sergeants, Real Heroes, and SMEs. As an individual working at the VAE explained, this effort to humanize the Army is very intentional because

[3.2] traditional media marketing efforts for the Army—they have always come off as being sort of half-assed and really goofy. You see television commercials and the things that they really hype up are things like "honor" and "duty" and stuff, and it falls flat I think. It's just images and audio....[The VAE] really puts a human face on things whereas on a TV commercial nine times out of ten you are seeing actors and it's really insincere, really uninteresting, and really unengaging. Even in *America's Army* you can go into a Virtual Recruiting Center to meet the Real Heroes [simulated in the game] and learn about their stories. They're real people, but so much of Army advertising is not even virtual, but artificial. (Victor, personal communication, August 2008) (figure 5)



Figure 5. Two Real Heroes sign free copies of the *America's Army* video game that are given to visitors as they exit. (photograph by the author).

[3.3] The Real Heroes in particular are at the center of the *America's Army* campaign to place a human face on the Army (see also Allen, forthcoming). Most of the time, at least one of these individuals is present at the Virtual Army Experience. The combat stories of each Real Hero are highlighted at the *America's Army* Web site (<http://www.americasarmy.com/realheroes/index.php?id=2&view=videos>), and as the above description of the VAE indicates, they are shown to visitors at the VAE when a specific Real Hero is present. The Real Heroes, who are carefully chosen as representatives who present a realistic career goal for prospective recruits (with six noncommissioned officers and two commissioned officers), are portrayed as soldiers

whose training in the Army has enabled an ordinary person to do heroic deeds. As one Real Hero put it, "none of us were trying to be heroes, we were just there doing our job" (<http://www.americasarmy.com/realheroes/index.php?id=3&view=bio>). Another states, "I don't see myself as a hero, I just see myself as Tommy Rieman, doing my job. I think everybody has the same quality, but they just have to find it" (video 3).

[3.4] In this effort to personalize the Army through the individual figures of the Real Heroes, certain aspects of their lives are revealed at the *America's Army* Web site. Blogs, personal photos, bios, and videos all play a part in this multimedia public relations project (see <http://www.americasarmy.com/realheroes/blogs.php?id=23>). Notably, however, no Real Hero has any visual physical handicap, as this would be counterproductive to what the VAE and the Real Heroes program seek to accomplish. I have spoken with Real Heroes about personal injuries that have left them physically handicapped and psychologically traumatized, but none of this backstory is a part of the media personality of the Real Hero.

[3.5] SMEs also play an active role in personalizing the Army at the VAE and are central to interpreting the VAE to visitors in a way that maximizes the number of visitors leaving with a favorable impression of the Army. Some SMEs crack jokes and keep their explanations upbeat, while others choose to focus on describing their own experiences and the kinds of career trajectories that enlistment in the Army allows. One SME, for example, informs visitors about his deployments and return, but chooses to tell visitors mostly about his subsequent pursuit of a college degree with Army support. SMEs say their job is to "educate, promote, and entertain the public," and they conceptualize their work as both performer and educator. "I think I'm a little bit of each," one SME told me,

[3.6] because I like making people smile and have a good time because that's what this is about. It's not about trying to impress people or make them think they're in the Army. I like to entertain them, because the Army isn't that bad. A lot of people are like—oh, if I join the military I'm going to get shot at and all this kind of stuff, but no, it depends on what job you do. I try to educate people and [tell them], "No, you could be a satellite technician, and do three or four years, get out, make over a hundred grand a year with your military education and experience." So, educate. And then, I might crack a few jokes...and just try to make good laughs and have a good time. (Rick, personal communication, August 2008)

[3.7] These men are all former enlistees in the Army, and many work as contract employees at the VAE between stints of active duty in the Army. As such, the SMEs themselves blur the lines between the soldier and civilian, which acts as an effective marketing mechanism for the Army. To explain this, one employee rhetorically asked,

[3.8] What is the product that the VAE wants to punch out? On one level you have the game that we give away, but at the end of the day, it's all about recruiting. What's the product, though? The Real Heroes are sort of the cream of the crop; they are the ultimate product. But I think on a larger scale you have to look at the Subject Matter Experts. I think that those guys who were just regular folks in the Army—some did combat, some didn't—I think that those are the real products. Those guys are literally "products" of the Army. (Victor, personal communication, August 2008)

[3.9] Although the Virtual Army Experience is a marketing effort to sell a real experience of joining and being in the U.S. Army, there are a plethora of products—both literal and metaphorical—that shape the visitor's experience at the VAE. The SMEs, recruiters, and Real Heroes (all products of the Army) help create a militarized, highly masculine experience that guests can take home with them after their visit. Items given to visitors (ID cards, key chains, action figures, T-shirts, hats, and video games) are some of these take-home products, as are the intangible memories of the experience. Additionally, people who fit the right demographic and who have indicated an interest in the Army also take home with them the prospect of being contacted in the near future by a recruiter. Indeed, after indicating at registration that I was interested in learning about all aspects of the Army but was not interested in signing up (an honest statement), I received several calls and e-mails from recruiters in the Seattle area only a week after first registering my name, address, e-mail, and phone number with the VAE.

[3.10] The Real Heroes and SMEs are ultimately ways of challenging and seeking to change the "cog in a wheel" image of the Army as an organization that has little place for the individual in its day-to-day operations. Like the U.S. Army's former official—and seemingly contradictory—slogan "Army of One," the Real Heroes and SMEs seek to portray to civilians (and potential recruits) that the Army is composed of a multitude of individuals, not a mass of soldiers. "Empower yourself, defend freedom" is a phrase that appears on many Army Game Project products (video 1), and the Real Heroes and SMEs act as real-life embodiments of this discourse of individual empowerment within the total institution of the Army.

4. Virtual armies

[4.1] Although the VAE takes its name from the technology of virtual reality, when considering the population of visitors to the VAE, another sense of the word *virtual*—that is, a connotation of potential—is also germane (Deleuze 2002). The visitors to the VAE are a force that has not yet been mobilized, and the VAE serves as a conduit that could be the first step in actualizing the potential of this labor pool. Fish Software, the

contracting company responsible for gathering data on visitors and disseminating them to relevant entities like recruitment offices and the Army Game Project headquarters at the Office of Economic and Manpower Analysis at West Point, is forthright about this function of the VAE. They state that "though the VAE will garner much attention for being a realistic and compelling war simulator, the purpose of it is clear—to collect actionable information that allows the Army to recruit more effectively. Every aspect of the experience is geared toward delivering positive messages about the Army and collecting information that can be leveraged post-event" (Fish Software 2007:3).

[4.2] Although Army recruiters are present at the VAE and the information provided at registration is passed on to recruiters, an overarching conceptual basis of the Army Game Project is that the hard sell by recruiters to join the Army is not an effective means of garnering recruits (COL Casey Wardynski, personal communication, August 2008). The Army Game Project has, in most cases, relied on the kind of soft sell that makes it difficult, if not impossible, to track the efficacy of its marketing campaign. According to the director of the Army Game Project, however, visitors to the VAE are nine times more likely to enlist in the Army than nonvisitors and 30 percent more likely to play *America's Army* than nonvisitors. Players of *America's Army*, in turn, are 30 percent more likely to join the Army than nonplayers (COL Casey Wardynski, personal communication, September 24, 2008). To be sure, a good portion of these impressive numbers is a result of a self-selection process; many people who visit the VAE or play *America's Army* are already interested in the military to a certain degree. Although unconfirmed to me by statistical data, these figures nevertheless demonstrate a hugely successful marketing campaign supported by minimal investment in comparison to other marketing and public relations campaigns run by the Army.

[4.3] The development, construction, presentation, and postpresentation aspects of the VAE involve a constellation of part-time, temporary, and full-time laborers. These too are a virtual army in the sense that they are not a part of the U.S. Army proper but nevertheless fulfill many of the functions of the Army (see also http://www.youtube.com/watch?v=B51abXkmN_I&feature=related). This virtual army is composed of SMEs, technicians, tour directors, public relations representatives (all employees of the Los Angeles marketing firm Ignited), local female staff at registration and checkout (hired on a temporary basis through local modeling agencies), drivers (employees of Performance Marketing Group), and representatives from Fish Software, the Army-sponsored Top Fuel dragster racing team, and McCann Erikson (the marketing agency responsible for the "Army Strong" campaign). In addition to this virtual army of contractors, enlisted Army recruiters, the Real Heroes, and drill sergeants are all involved in the VAE media campaign. These individuals, especially men who tour with the VAE and are with it on a consistent basis, tend to speak of their

work in terms of the military. "You know," one employee told me, "anytime you're on the road it's just like the Band of Brothers in the sense that you go through the worst things on Earth. I mean, obviously we're not in Iraq, but stuff will break and somehow we always make it work. I like that camaraderie" (Charlie, personal communication, August 2008).

[4.4] This virtual army exists to support the continual flow of visitors and the occasional media or VIP visit to the VAE. Although this breakdown admittedly falls into the trap of categorizing individuals based on the type of work they do, it is nevertheless useful in beginning to think about the sheer variety of activities, motivations, interests, organizations, and logistics involved in putting on a production such as the VAE. A step back from this local level of actors reveals even more layers of organizations connected to the VAE. Zombie Studios, the *America's Army* design studios, the Software Engineering Directorate at Redstone Arsenal, and the Office of Economic and Manpower Analysis are only the most central organizations in a complex array of institutions that have had a hand in the production and implementation of the VAE.

5. Militarization and protest

[5.1] In other writings (Allen, forthcoming), I have connected the practices of the Army Game Project such as those described above with theoretical perspectives that argue that disciplinary institutions such as the military, prisons, hospitals, schools, and asylums no longer work to discipline only those subjects within these institutions. Instead, they act in more diffuse ways, spreading their disciplinary tendencies across the general population (Hardt and Negri 2000, 2004). Simply put, militarization no longer happens only at the military base, in the classroom, or on the battlefield (wherever that may be), but instead increasingly occurs in less institutionalized settings such as state fairs, air shows, and car races. A man I'll call Tom (a pseudonym), a VAE employee, directly spoke to this point when he said that

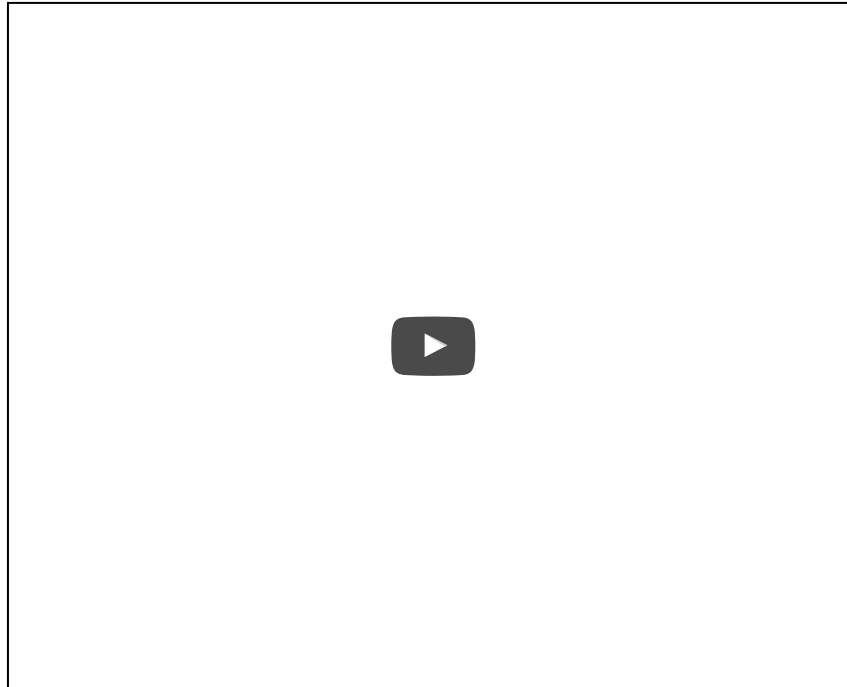
[5.2] so much of society—American society specifically—is incredibly militarized, but we don't see it. You can hang out and watch the history channel and that might not bother you, but it's all basically war. You could write a whole thesis on sports and militarization in the United States, but for some reason [we don't see it.] For example, the VAE goes to a lot of air shows, and air shows to me have always been military stuff, where you're flexing your military muscle, you're showing off these machines that are designed to murder people, basically. And that's fine if you want to boil it down to that. But what's interesting is that at the Cleveland Air Show every year we have a group of protesters that is very anti-VAE. They're really

confused, though, in the sense that they'll say that the air show is just "a celebration of American aviation," but what we're doing is so indicative of the militarization of American culture and how bad we're going down like Rome. They don't see it—it's like the forest from the trees thing. America is completely militarized in so many ways, but so is most of Western culture. It's so easy to find something like the VAE and put your thumb on it, but it's such a bigger societal issue than just the VAE...I think with protesters like that, to go after something really big like this is the easy way out—to say that this is big and evil and it's going to hurt people. (Personal communication, August 2008)

[5.3] As Tom's comments indicate, at the time of my fieldwork in Indianapolis, an impending protest at the Cleveland Air Show was a major topic of conversation among workers at the VAE, with the most vocal and negative reactions coming from the SMEs. "I've heard about the horror stories of protesters showing up," one told me, "but I really hope I don't have to deal with them. I wouldn't get angry with them, I wouldn't react. I'd let the media people deal with them, but I don't believe that people should protest this game" (Rick, personal communication, August 2008). Although some SMEs implied that protesters were unpatriotic, others were more even-handed, explaining to me that "protesters think this game is here to entice children and make it seem like killing is glamorous, but SMEs are here to make sure that it's not interpreted in that way" (Tony, personal communication, August 2008).

[5.4] A representative from Veterans for Peace, the group that has organized protests against the VAE in Cleveland 2 years in a row, said in a public statement that "massacring people on a screen I don't think is good for young people. It gives a distorted message about what the Army is doing today." Another representative added, "We don't want to come across as criticizing the Army. Many of us have seen combat and have been decorated. But this thing uses violence to seduce young people into enjoying a very false depiction of war" (O'Malley 2008; video 4). Veterans for Peace made headlines a few months later at another Army recruiting event that used the game *America's Army* when a representative stated that the use of video game technology to market to teenagers is "like giving candy to kids. It's sort of like military pedophilia in a way, preying on our young people" (Kobely 2008). I would argue that such strong reactions are bound up in an array of issues that stretch beyond the strong antiwar stance of Veterans for Peace. They stem in part from a profound fear and misunderstanding of the emergent medium of video games, a fear that has historically accompanied the emergence of other new media such as television and radio (see Jenkins 2004, 2005). However, these reactions are also grounded in a legitimate concern over the kinds of messaging the VAE imparts. The marketing term *messaging* is continually deployed in public relations language surrounding the VAE.

Although the word *propaganda* and the phrase *recruitment tool* are explicitly avoided by the marketing team for *America's Army* and the VAE, employees readily acknowledge that their products could be interpreted as being such. As one *America's Army* employee acknowledged to me, "one person's 'messaging,' of course, is another person's 'propaganda'" (October 28, 2008).



Video 4. *A report on the VAE from Channel One news.*

[5.5] Concerning this, I found an unlooked-for but serendipitous source of informant-driven theoretical reflection in the person of Tom, whose interest in the political writings of Noam Chomsky (Herman and Chomsky 2002) opened a new perspective on the Army Game Project. Tom's interest in Chomsky's writings on media, propaganda, and politics was one that, as he explained me, created for him a lot of "cognitive dissonance" in his line of work. He spoke candidly about how he

[5.6] was thinking about what Chomsky would think about something like this...I think it's almost arguable that if he were sitting here, he would say that my reaction to it now is exactly why it works so well—because it doesn't bother me anymore. And that's where propaganda actually works. That's a big thing with Chomsky, that [the VAE] is propaganda, but so is that Chevy display over there. Propaganda used to not be a bad word until it got associated with Nazism. So propaganda is propaganda and the Army is just as much a corporation as any other entity out here—that's why it is always at events like this [state fair.] You know, I had this super left-wing newspaper that I ran for a long time in college, and I never thought in a

million years that I would be working for the Army in any capacity, let alone promoting it in this way. (August 2008)

[5.7] Tom went on to explain to me that when he was in high school and heard about *America's Army*, he imagined

[5.8] guys in an office manically planning out how they are going to get guys in the Army. And after working with this and doing it for so long I don't think it's that at all. It's an honest, sincere effort to put people in the Army. It's not this sort of Orwellian, vindictive thing where they are just trying to trick people into joining the Army, which I think is something that is very easy for people to think. I mean, you come in to the VAE, and people give their information...so there are protesters that really hate this thing. But I think that they also have this impression of guys in an office, watching you to see what you are doing, just trying to trick people into joining the Army. In my experience, it's not like that. (August 2008)

[5.9] As I began to realize over the course of my research, Tom's reflexivity concerning his position within the Army Game Project is not as much of an abnormality as some might expect. His position, like that of many others, is a complex one that cannot be summarized by pithy phrases or slogans. Consequently, it is a position that often becomes lost in the polarizing media reports and academic criticisms that pit the military against protesters and the processes of militarization against critical reflection of those processes.

6. Conclusion

[6.1] I have sought in this essay to take an ethnographic look at a specific articulation of a vast network of institutions and practices that are often elided by the phrase "military industrial complex," now sometimes referred to as the "military entertainment complex" (Lenoir 2000) or simply "militainment" (Stahl 2007). I think that this level of detail in describing the praxis of fieldwork is necessary to gain any solid understanding of the sinews that connect individual actors to larger trends. Although I am informed by much of the recent work of writers originating in the Italian autonomist movement (Hardt and Negri 2000, 2004; Virno 2004), such overarching theories need to be balanced by a solid foundation of fieldwork and empirical data. As anthropologist Catherine Lutz writes, "Despite a plethora of books with empire in the title scholars have virtually no empirical idea how the broad mass of people in the United States see the nexus of their nation, power, and the rest of the world. This is an eminently ethnographic question" (2006:597).

[6.2] Along with other articles in this Games issue, I make the case that an ethnographic approach to games, gamers, and game development that takes seriously the voices and interpretations of research subjects is critical in gaining any real understanding of topics such as empire, militarization, and human interaction through technology. Research in the game-developing community—and especially the military game-developing community—is one of the largely uninvestigated areas within game studies. As both video games and the military come to affect the everyday lives of people in subtle and sometimes not so subtle ways, it is crucial to listen carefully to the individuals who grapple daily with the political and personal complexities of their position in these environments.

7. Addendum: Killing in the name of what?

[7.1] Since my original fieldwork in Indiana, coverage on the VAE has continued to be prevalent in the media (see <http://online.wsj.com/article/SB121721198768289035.html>). Two days before this article was to go to print, the VAE became a point of debate in Congress, with Rep. Dennis Kucinich writing to the House Committee on Armed Services to request that the nearly \$10 million in yearly funding for the VAE be dropped from the National Defense Authorization Act for 2010 (<http://www.commondreams.org/newswire/2009/03/12-6>). The new Army Experience Center inside the Franklin Mills Mall in Philadelphia, a related program that uses the same *America's Army* technology, has arguably generated even more contention and coverage, with reports from CNN (<http://www.cnn.com/video/#/video/tech/2009/01/14/carroll.mall.recruiting.cnn>), NBC (<http://www.icue.com/portal/site/iCue/flatview/?cuecard=39820>), and the *New York Times* (<http://www.nytimes.com/2009/01/05/us/05army.html>), as well as independent media organizations (<http://www.phillyimc.org/en/phillys-military-amusement-park>) and activist organizations (<http://www.commondreams.org/view/2009/02/19-2>). PR representatives from Ignited are generally happy with this wide exposure, claiming that "in the last two years we've maintained 97% positive to neutral coverage" (personal communication, February 2009), a statement that makes me wonder how this article itself will be classified.

[7.2] As my experiences doing fieldwork in these environments reveal, the deployment of video game technology for military recruitment purposes is not without ironic moments, such as when Army recruiters encourage teenagers to play *Guitar Hero* to Rage Against the Machine's "Killing in the Name" on the Xbox360 in front of the VAE. (The original mantra that concludes the song, which is edited out for the game, is Zack de la Rocha's powerful and emotional response to the kind of institutionalized power that the Army represents: "Fuck you, I won't do what you tell

me.") Indeed, much of the video game industry thrives and profits from the commoditization of irony. If anything, these moments indicate that the military's appropriation of video games will continue to be a nexus point for important continuing conversations about the consumption of war and the ambiguous relationship between war and game.

8. Acknowledgments

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9. Notes

1. *America's Army* is playable on a variety of platforms, including the PC, original Xbox, and Xbox 360. The PC game has been released in an iterative format since 2002, with a new 3.0 version slated for release in 2009. There are also cell phone and arcade versions of the game.
 2. In order to be more easily available to its target demographic of teenagers, *America's Army* products have intentionally been designed to achieve a "Teen" rating by the ESRB (Entertainment Software Rating Board). Among other things, this means that no dismemberment, gore, or postmortem manipulation of bodies can occur in the game. Enforcement of this age restriction at the VAE, as with all video games, is difficult.
 3. In gamer jargon, *respawn* refers to the gaming convention in which a player's avatar return to life after being defeated; *god mode* refers to a state in video games in which the player's avatar is invulnerable to damage.
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Praxis

Too Human versus the enthusiast press: Video game journalists as mediators of commodity value

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[0.1] *Abstract*—This article examines the role of mediators in the production of commodity value, arguing that there is a rise in a kind of immaterial labor, shaped by contemporary conditions of late capitalism, that functions explicitly as a mediating force. In this example, video game journalists are understood as actively engaged in producing and negotiating the value and meaning of video games for both producers and consumers. By specifically examining a moment of value contestation, a podcast debate between a journalist and a game developer, this article traces the mediating practices of the enthusiast gaming press and examines the way their history with and relationship to the video game industry continue to structure their ability to filter knowledge and shape desires.

[0.2] *Keywords*—Journalism; Video games

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1. Introduction

[1.1] Many scholars have recently argued that media—practices, products, and forms—are converging (for perhaps the loudest voice, see Jenkins 2006). Media convergence encompasses a variety of events and experiences, and, as Jenkins has argued, marks a change in the way media is both consumed and produced; for example, convergence occurs when news and entertainment content flows "across multiple media platforms" as well as when consumers take "media into their own hands" (Jenkins 2006:17). Yet under conditions of late capitalism—marked in some ways by the rise of immaterial labor, as scholars such as Lazzarato (1996) have already noted—a particular form of divergence is also at work. As Appadurai explained, for example, "In complex capitalistic societies...knowledge is segmented (even fragmented)...between producers, distributors, speculators, and consumers" (1986:54).

[1.2] In the spaces of this divergence—brought on in part by the intensified circulation of capital, information, knowledge, and goods—mediators of all types are

put to work. These mediators rarely make tangible goods; rather, they are transition points, producing affects—entertainment, taste, and experiences—and articulating needs and desires (Lazzarato 1996). They stand between consumers and producers as fulcrums, spinning and molding the knowledge that each has (access to) about the other, impacting consumption habits as they simultaneously shape production practices. Mediators then are often directly involved in negotiating—sometimes adding or subtracting—the value of a commodity or affect.

[1.3] In "Tracking Globalization" (2006), Foster suggested a particularly useful methodological framework for examining the role of mediators: an attention to—and emphasis on—the transformation and contestation of meaning and value by social actors as commodities move throughout their networks. Foster wrote, "Theoretically, the method ought to explicate how value—quantitative as well as qualitative—is variably created and unequally distributed in and through contingent relations or assemblages of persons and things" (296). Mediators are continually engaged in moments of "value contestation" (Long and Villareal 1998:726), a clear moment when actors with (often) diverging interests struggle together over the value and meaning of a commodity. While mediators work actively to fix tastes and produce desires, these moments of contestation are layered: they involve the performance of expertise and the defining and reworking of relationships (between producers, mediators, and consumers) as actors engage in battles over the value of certain commodities. Such moments of contestation are valuable spaces from which to examine the impact of mediators in circuits of commodities.

[1.4] Video game journalists act as mediators of knowledge and value for video games. As I will demonstrate, they impact both consumption and production understandings and practices. Video game journalists themselves help to blur clear lines between producers and consumers, a product of their history as video game fans and their relationships with game developers, yet they simultaneously work to secure those lines as fixed. As they mediate, they perform their expertise at the same time as they work to (in)validate the expertise of others—the producers and fans. Their practices and functions, while not necessarily unique, serve as a useful example of a kind of (commodity) mediation—linked to immaterial labor—(that is, moving into spaces of divergence) produced under conditions of late capitalism.

2. Convergence

[2.1] This project was born out of a moment in which, quite typically, many moments were converging. While this particular moment is contained on—or in—a digital file, a radio podcast, the threads materializing in this moment come from diverse media, relationships, events, and personalities, the elements of the commodity network in

which this podcast is immersed. I begin with this moment, rather than another spot or node on the network, because it is a moment of value contestation, a moment that articulates and dissolves connections at the same times as it works to define them.

[2.2] The podcast is the March 12, 2007, edition of *EGM Live*, a weekly show produced by the consumer video game magazine *Electronic Gaming Monthly* (EGM). The podcast typically features staff writers as the hosts, but this particular show also included two special guests: EGM editor Mark MacDonald (who was not a regular host) and Denis Dyack, the president and founder of the video game development company Silicon Knights (Dyack and MacDonald 2007). Dyack was invited on the show to talk about Silicon Knights' then-forthcoming game *Too Human*; more specifically, he was to go head to head with MacDonald over his "terrible" rating of the *Too Human* playable demo shown at the Electronic Entertainment Expo (E3) in May 2006. The ensuing debate continued for the length of the almost 2-hour podcast and radiated outward in the following days, appearing in Web forums, articles, and blogs, and even prompting a "fallout" response from the following week's *EGM Live* podcast (note 1).

[2.3] On the show, Dyack responded to MacDonald's "terrible" preview rating of the demo build of *Too Human*, in which MacDonald had written, "I know from our cover story a few months back that this game has great potential, but in its current state I wouldn't show *Too Human* at a high school science fair, much less the world's most important gaming trade show" (MacDonald 2006). In reaction, Dyack resolutely declared, "I think the whole premise of previewing games a year and a half before their time has to stop...we need to stop previewing games a hundred percent...I think what we need to do as an industry is finish the game, and start the marketing."

[2.4] Setting the combative tone of the podcast, Dyack at one point told MacDonald, "I gotta tell you, I don't understand the level of harshness...I look at this and go, Wow, did I step on your foot? Did I say something bad? I just don't know where that came from." MacDonald responded, "Honestly, its not like I'm gunning after you, I have absolutely no personal anything towards you, I'm completely doing that on the game, and it's something again where I'm talking to the reader like I would talk to my friend." Consequently, it might seem that the show merely documented a very personal conflict between two people. However, as the two continued to argue the usefulness of previewing unfinished games—different from a review in which a finished game is typically rated and receives a score—they continued to circle larger issues surrounding contemporary video game production and distribution practices, namely, trade shows, vertical slices, demo builds, marketing, the ethically precarious courting of journalists by large-scale publishers as well as, in general, the role of journalists in the video game industry and their impact on production and consumption practices.

[2.5] The EGM podcast is a unique moment and is valuable to begin with in part because the show's content is already directly concerned with negotiating value, debating the act of journalists assigning direct, consumer-oriented ratings to games through previews and reviews. But again, beneath that question, Dyack and MacDonald wrestle with much broader issues that spiral out to multiple, contingent layers: the practices and decision-making ideologies that currently shape how value is produced, integrated, and imagined at several points along a video game's "biography" (Kopytoff 1986); the appropriate relationships that might or should exist between producers, journalists, and fans; the suture point of these communities; and their shifting, symbolic spheres of expertise. In "EGM's Opinionated Preview Guide" to E3, MacDonald rated the demo build of *Too Human* as terrible, explicitly assigning value for his readers. Dyack challenged this on the show: "So...Mark you're saying *Too Human*'s terrible. And we want to make sure we say the names here so everyone knows who we're talking to." MacDonald clarified his position: "I'm saying *Too Human*'s showing at E3...was [terrible]." But Dyack doesn't see a difference; he argued instead that "I really don't think you have a chance of any kind of qualitative assessment at E3. You have, how many games are at E3? 5,000? Okay. And you guys have 3 days to preview 5,000 games that are incomplete, tech's not done...I think that this does not help your audience on deciding what is a good game and what is not, it just helps get them excited or not excited. In this case, getting us panned, in this particular case...what purpose does it serve?"

[2.6] In this moment, Dyack and MacDonald performed and negotiated their separate realms of expertise while simultaneously defining and challenging their appropriate roles and practices as developer and journalist. Continually aware of the forum—a podcast whose primary audience is video game fans—they also worked to define their roles in relation to—and against—fans, readers, listeners, subscribers, and consumers. An additional layer to this discussion, then, revolved around defining and contesting the appropriate or relevant relationships that exist—or should exist—between producers, journalists, and fans.

[2.7] Tracing the convergence of threads that led up to and materialized in this moment is only part of my interest here. The significance of this podcast, as I will argue, is the way it reveals the inner workings of the production of—and the struggle over—commodity value; that work happens in this moment precisely because it is a moment when value and meaning are being contested. But this work doesn't happen all at once or all on one level in any flattened out sort of way. There are layers here, and contestation happens as relations (and fractures and knots) surface and merge, moving fluidly or with friction—outwardly, inwardly—connecting the personal, the structural, the institutional, and the network. For example, it is not irrelevant that Dyack and MacDonald have particular personal pasts and histories that inform their

knowledge and opinions on the topics they face off on; simultaneously, those personal details are embedded in multiple networks, all assemblages of relations that glimmer and twist as they reveal themselves in this moment.

3. E3: Video game makers and "news" makers

[3.1] MacDonald's claim that E3 is "the world's most important gaming trade show" is not entirely an exaggeration. Until its downsizing in 2007, E3 had been a central point of the video game industry's media blitz (note 2). Held annually in May since its inception in 1995, E3's goal was to bring together video game makers and media professionals. The Entertainment Software Association (ESA), who sponsors the event, describes the 2009 E3 on their Web site: "E3 will welcome all qualified computer and video game industry audiences, including international and U.S.-based media, analysts, retailers, developers and business partners to preview the latest in interactive entertainment and technology" (<http://www.e3expo.com/>). Like any media or technology oriented trade show, E3 is an opportunity for producers to present new or as yet unreleased games, peripherals, and hardware to journalists, who can then publicize them to consumers.

[3.2] Located annually in the Los Angeles convention center until the event was moved in 2007, E3 comprised (for example) high-profile press conferences by the big names Sony, Microsoft, and Nintendo; hotel room meetings between journalists and developers; and developer booths, sometimes extravagantly and loudly displaying new games coming to the market. At press conferences, journalists heard speeches from CEOs and presidents of game companies, and watched flashy videos advertising the latest games or hardware. These press conferences were spectacles, notorious for their high profile announcements and surprising reveals, kept secret until the final moment on stage (note 3). Intense competition often raged over which company could crack the biggest news. In private meetings with developers and distributors, journalists had access to game makers for one-on-one interviews, received guided walkthroughs of game demos, and gained (sometimes playable) access to games that weren't available to all attendees. At the booths on the showroom floor, journalists could get their hands on controllers to play game demos—often after waiting for hours in line with other journalists and, often, nonprofessionals who had navigated their way into the show.

[3.3] The games presented to journalists at E3 range in their stage of completion and the form of their presentation. Games early in development—as much as 2 or 3 years from completion—might be presented only with a "teaser" trailer (note 4) at a press conference or developer booth. Games closer to completion might show a longer trailer, demonstrating actual game play footage (often with declarations that clarify

whether the footage in the trailer has been generated in game [note 5]). Games nearer their release date offer E3 audiences a *demo*, or demonstration: a playable level of the actual (though possibly unfinished) game. However, sometimes these demos—particularly if the game is not complete enough to show to gamers as is—may be in the form of what is called a *vertical slice*. A vertical slice is a demo designed to illustrate all (marketable) facets of a game—AI (artificial intelligence), graphics, game play mechanics, and level design, for example—by presenting a small portion of an (often playable) example level. Frequently, vertical slices, since they are typically not simply lifted out of a close-to-complete game and are instead levels made specifically as a demo of an incomplete game, can take a great deal of (side) development time to produce and may not wholly represent the final version. Aside from creating vertical slices for demos to be presented to consumers or journalists, developers might also produce them to be used in house to analyze how the game is progressing, to see if some detail or mechanic is working properly, or to show to distributors or partners.

[3.4] The *Too Human* presentation at E3 2007 was a vertical slice. As Dyack subtly revealed in the podcast, the Silicon Knights development team felt great pressure (possibly from their backers, marketers, or partners) to have a demo build ready to present to gamers at E3. On the podcast, while Dyack avoided answering MacDonald's question, "Do you agree that it should not have been shown at E3?" he did in fact suggest that the vertical slice was shown at E3 against his better judgment because it contained bugs that the team did not have time to fix before the show (note 6).

[3.5] MacDonald's preview of the *Too Human* build appeared in a section of the magazine related to E3 coverage, in a column entitled "EGM's Opinionated Preview Guide." Promising "honest impressions," the guide is headed with the disclaimer that "a lot can happen before these games land on store shelves, so some duds may actually turn out to be studs...and vice versa" (anonymous, introduction to MacDonald 2006). Each preview was accompanied by an 8-bit-looking, *Space Invaders*-like icon in stages of happiness or anger, depending on the preview rating (awesome, good, so-so, and terrible), for readers who "can't be bothered with so much reading" (anonymous, introduction to MacDonald 2006). MacDonald and the EGM staff writers explained on the podcast that one of the requirements for a game to be included in the E3 preview guide was that it had to have a playable demo (*but* the demo didn't have to be played by the journalists; they could simply watch someone else play, including developers presenting the demo to an audience). Given the minuscule word allowance, MacDonald's preview of *Too Human*, after a short introduction, got straight to the point:

[3.6] How was it? In a word: disappointing. Solid combo-friendly controls were lost in a storm of mediocre graphics, lame effects, technical issues (the

game often froze for seconds at a time) and a woozy camera usually zoomed so far back it felt like I was playing *Robotron*. (MacDonald 2006)

[3.7] During the podcast, MacDonald elaborated on his experience playing the *Too Human* demo: "So you can see the video of what I got...it was jittery, or the camera would come sort of in and out, and there were issues with it, and, you know, I had the resulting write-up in EGM judging what we saw at E3, and I came right out and said that."

[3.8] After reading a portion of MacDonald's preview on the podcast, Dyack challenged, "So, I'm just going to call to point, these shots you have here [three stills of *Too Human* included in the magazine next to MacDonald's preview] are actually from the E3 build...So you think those graphics are mediocre?" MacDonald responded, "I still have the video of what I actually saw, and what I saw was, it very rarely looked like this...this looked really good, but in the build..." The other hosts on the show came to MacDonald's defense, reminding the listening audience that a game looks very different in motion.

[3.9] Dyack was also critical of MacDonald's writing style and tone, arguing that it was unnecessarily harsh in order to be provocative: "Saying something like 'I wouldn't show this at a high school science fair,' I know it's good to be down with the readers and stuff, but..." MacDonald retaliated:

[3.10] Well, come on, it's making a point; it's an obvious exaggeration to make the point. I'm a writer; at the end of the day I gotta make something that people are gonna want to read. The reader gets the point that this should not have been shown at E3, and I think that was an opinion that a lot of people shared.

[3.11] Ultimately, Dyack was critical of the industry's privileging of event-moderated relationships. Dyack argued that shows like E3—inflexible to a game's own production timeline—place pressure on developers to present material from games that are still early in production, which can compromise the development of a game. As a consequence, what journalists have access to, and the quality of demos presented to them, Dyack argued, is completely random—and, as in the case of *Too Human*, can impact the gaming public's early opinion of a game. Dyack also argued that industry events like E3—and the products that developers and publishers have to produce for the show—privilege presentation over substance; what might get presented at E3 is "not really what a game is about." But Dyack was particularly critical of the preview process, "rating things that aren't done," and the kind of impact a preview like MacDonald's can have on a game that is nowhere near completion.

[3.12] **Dyack:** If you're doing a preview, the amount of, I'm going to be very blunt, the amount of, you know, potential damage you can do because you guys are press and you're respected, saying anything negative that might not be true with a preview, all you can say is the concept's cool, it may be a little disappointing, but when you go out and label something terrible, that makes a difference, that's an impact...

[3.13] **MacDonald:** Somebody chose to show that build to the press knowing they were going to evaluate it, [and] can't be surprised by the rating.

[3.14] **Dyack:** The entire industry was surprised by the vehemency of this. Our partners are going, "So what you are saying is we made a mistake."

[3.15] Clearly, E3 and the practiced grooves of developer and journalist routines structure the production practices. Producing a vertical slice for a trade show like E3 can take a great deal of prime, potentially critical, development time away from work on the actual game, to present to the public something that may not always be a good representation of the game to come. Yet E3 demonstrates an economy that producers and journalists have built on each other: developers need previews to create the desired hype and buzz around a forthcoming game, and journalists need trade shows like E3 to create content to fill magazine and Web pages. Although journalists, via their editors, might be largely the ones who shape what previews look like, they don't always have complete control over this. Dyack may in fact have been responding to the previously tacit understanding between developers and journalists that previews will always be positive, advertisement-like presentations. *Newsweek's* video game columnist N'Gai Croal has argued that the preview-review system has a "fundamentally broken nature...in which historically previews and features have almost invariably been positive—or optimistic, if we're being more charitable—before the truth, good or bad, was finally revealed in the text and scoring of the review" (Croal 2007). MacDonald, along with EGM's "Opinionated Preview Guide," clearly violates this understanding. Even with this violation, the practices of producers and journalists remain tightly enmeshed, representative of the long symbiotic relationship that has existed between game development companies and game journalists.

4. Enthusiast(ic) press

[4.1] MacDonald and his colleagues at EGM belong to a subset of journalism that is referred to by mainstream journalists as the *enthusiast press*. Typically, the enthusiast press produces consumer-oriented publications that focus on publicizing specific categories of goods, often high-end technological products (such as video games,

computers, or cars), though the category has recently been used most frequently to refer to a particular kind of video game journalist and publication. The label carries the connotation that video game journalists who belong to the enthusiast press are not "real" journalists; this is an understanding, however, that MacDonald and others often resist.

[4.2] In a blog post, N'Gai Croal (2007) explained why the enthusiast gaming press is derided by developers:

[4.3] The reality is this: publishers generally hold the enthusiast press in utter contempt, and they have for a long time. This disdain began as scorn for the enthusiast media's roots in video game fandom, rather than traditional journalism from "respectable" publications, but it has since metastasized into a veiled but nonetheless seething anger over the advent of the Internet and with it the rise of fan sites, forums and blogs over which publishers can exert little pressure, let alone control.

[4.4] With this departure from their once symbiotic relationship, Croal argues, the rise of gaming Internet news sites and forums, and the practice of providing retail outlets and publishers with statistics regarding page views and site traffic have now locked the producers and the enthusiast press in a parasitic dance. Croal's blog post on "Contempt" was in part a response to the then-recent firing of a *GameSpot* (<http://www.gamespot.com/>) editorial director, which was rumored to be the result of that Web site's poor review ratings given to the game *Kane and Lynch* (2007) complicated by the recent huge advertising deal struck between *Kane and Lynch's* publisher, Eidos Interactive, and *GameSpot*. Croal called this complication "the deal with the devil that the business side of enthusiast outlets struck long ago—taking advertising dollars from the very companies that they cover" (2007). Enthusiast gaming publications continue to find themselves mired in practices that flirt with ethics that "real journalists" might find questionable. However, the video game enthusiast press has been shaped by a very particular history that marks it as different from mainstream journalism, and that history continues to structure the kinds of relationships that the enthusiast press has with game makers. Those relationships continue to shape production practices.

[4.5] One of the first gaming magazines in the United States (note 7), *Nintendo Power* was self-published by Nintendo and originated as a replacement to their *Fun Club Newsletter*. The newsletter was originally a way for Nintendo to track its growing consumer base; after sending in a Nintendo warranty card, gamers were automatically enrolled in the Fun Club and sent a newsletter. The newsletter contained feature stories on games as well as tips and still images from top-selling games. When the Fun Club membership reached 1 million, Nintendo of America's president, Mino Arakawa,

established *Nintendo Power* (note 8). Although it was composed of "editorial" content, *Nintendo Power* was, in essence, an extended advertisement for Nintendo products and services. The magazine included "stories about game characters, lists of kids' high scores, and loads of maps and charts, as well as lots of game tips" (Sheff 1994:178). Articles covering games that were in preproduction helped Nintendo essentially to presell their product: "The best games (or the ones Nintendo wanted most to sell) were covered in spread after glossy spread of maps, galleries of characters, and player tips" (Sheff 1994:180). *Nintendo Power* and its popularity helped to establish a format for game content and news—glossy spreads and high-profile, in-depth coverage of forthcoming games, very similar to the content found in video game magazines and Web sites today. Although most contemporary video game publications, whether print or online, are not actually published by game companies (note 9), these publications continue to make their primary revenue through advertising dollars from the game publishers and developers:

[4.6] One would have to be naive or foolish not to understand that there has always been a mutually beneficial relationship between journalists who cover consumer products or entertainment and the manufacturers or publishers of the goods in question. The journalist and his or her outlet gets a story that is of interest to their readership while the company gets exposure for whatever they are trying to sell, and this remains true today. (Croal 2007)

[4.7] The enthusiast press has been positioned over time primarily as a marketing venue, with a clear hand in encouraging consumers to buy and play the games that benefit the press's relationship with game publishers. Game publishers have a variety of strategies to court magazines and encourage favorable coverage of the games of their choosing—for example, giving journalists swag (free stuff, which can range from games and posters to an airplane ticket or a high-definition TV) or promising exclusive access to game information (like screenshots, early demos, site visits, or developer interviews). Producers and publishers also act on this perceived "marketing" relationship with the enthusiast press with more strong-arm tactics: pulling advertising or withholding a magazine's access to game data (such as stills, descriptions, and code) if the magazine doesn't positively rate or discuss that producer's company or games. A lingering impact of these practices is a conflict of interest—and a dismissal of "objectivity"—that doesn't sit well with the more mainstream form of American journalism.

[4.8] In addition, as Croal mentioned in a blog post, the video game enthusiast press grew out of game fandom, where job interview practices might privilege an applicant's ability to take down the office's reigning *Virtua Fighter* champion over the clarity or

skill of the applicant's writing. Writers in the enthusiast press might sometimes be motivated to become journalists because of their intense fandom or their desire to play and report on games before the general public has access to them as well as the opportunities to meet game developers they might idolize. The enthusiast press might also have less training in journalism, reporting, or writing than would be required for someone working for *Newsweek* or *Time*, another reason for mainstream journalism to consider them inauthentic journalists. However, those kinds of skills, in fact, might not be as necessary when working for a game magazine; it might be more beneficial to be familiar with the history and vocabulary of video games and the practices wielded by both developers and a magazine or Web site's reading audience.

[4.9] Despite the pervasiveness of these tight binds—equally constraining to game producers and journalists—some video game journalist outlets are in the process of seeking legitimization. Specifically, magazines like EGM are working with varying degrees of success to negotiate these traditions. Under the helm of editor-in-chief Dan Hsu, who left the magazine in April 2008, EGM began to publicize and promote their movement away from the questionable practices criticized by the industry and mainstream journalism. In several editorials, Hsu explicitly addressed the conflict of interest that has haunted games journalism, and he began to name the publishers and game companies who were attempting to exert pressure on the magazine. In the February 2008 edition of *Electronic Gaming Monthly*, Hsu told his readers that Ubisoft, Sony's sport game division, and the *Mortal Kombat* development team at Midway had banned the magazine from further coverage of their games because they were unhappy with the reviews and ratings their games had received in the magazine. In essence, they were refusing to send EGM information or game content such as stills, or to provide EGM with early code so that the magazine could complete reviews before the games were released. Hsu argued, "It used to be game companies would pull advertising if they wanted to punish a magazine for unfavorable coverage. In more recent times, they're pulling the coverage as well" (Hsu 2008). In his June 2007 editorial, Hsu also addressed the ethical standards that the magazine follows in regards to swag:

[4.10] Game companies are always trying to send us free stuff. What are we allowed to keep? We do not accept any gifts...But we are allowed to keep cheap, promotional items...[and] the games that the companies send us. We do not accept flights or hotel rooms from the publishers, either—we pay for those out of our own budgets. And even if we do fly out to see a game, we never promise any coverage.

[4.11] Hsu ended his editorial by explaining that, while these straightforward rules might seem obvious, readers might be surprised by the actual practices of other

gaming publications. Hsu (2007) encouraged readers to ask their "favorite magazine or website what their policies are," and concluded that "the more you know, the more you know whom to trust." Hsu's suggestion that a gaming publication's guidelines and ethical policies reveal whether they are trustworthy cast a shadow on the long history of reciprocal practices among journalists and producers while managing to imply that EGM remained untainted by this history.

[4.12] Hsu took some credit for the shift in the magazine's policies and intentions:

[4.13] When I took over as editor-in-chief in 2001, I also wanted us to get more real with our previews. I was tired of the press-release rehashes our industry had become accustomed to, so I asked for more sincerity and opinions from our writers and editors. Naturally, you have to be fair—the products aren't finished yet, after all—but judging from reader feedback, our opinionated previews have been a hit. (Hsu 2008)

[4.14] This shift in emphasis with previews is what led, in part, to the "E3 Opinionated Preview Guide." In the Dyack and MacDonald podcast (2007), one of the other EGM hosts, Shane Bettenhausen, made a similar statement: "We don't pull punches, we do the opinionated guy at E3 every year, and it's been a hit, but it's not a hit with a lot of developers and publishers."

[4.15] Opinionated previews and other similar "hard-hitting" features are not becoming a part of enthusiast press practices because they are more ethical but rather because they are popular with readers and help to sell magazines. As a result, even as game journalists attempt to move away from the routine and toward more "legitimate" forms of journalism, the paths that are open to them may not be as full of integrity as they imagine. The idea that game journalists work positively for the benefit of consumers—to provide them with honest and straightforward opinions without the framework of the market interceding—is largely a myth. Their mediation continues to be filtered by the market; their ability to sell advertising space and to produce subscribers and site visits—attracting readers with full and detailed, if not "world exclusive" coverage accompanied by large, glossy game play stills and interviews with game developers—remains dependent on the positive benefits of working closely, if not entirely ethically, with producers.

5. Divergence

[5.1] Henry Jenkins, in *Convergence Culture* (2006), discusses the way he sees media content, technology, and forms converging. Jenkins argues that "several forces" have begun to erode the barriers that separate different media—newspapers, magazines, radio, print, and television. While large media conglomerates buy up and

subsume diverse media forms (Sony, for example), new media technologies enable "the same content to flow through different channels and assume many different forms at the point of reception" (Jenkins 2006:11). For example, television shows can appear not only on TV screens but also on computers and cell phones. Simultaneously, Jenkins argues that hardware is diverging, and consumers need more and more technological gadgets to access increasingly similar content. Jenkins cites a Cheskin Research report from 2002 that claims

[5.2] Your email needs and expectations are different whether you're at home, work, school, commuting, the airport, etc., and these different devices are designed to suit your needs for accessing content depending on where you are—your situated context. (quoted in Jenkins 2006:15)

[5.3] It may seem that current lifestyles alone—our "needs"—are the driving force for the necessity of multiple media devices. Jenkins, however, suggests that the proliferation of diverse and multifunctioning technological accessories is "symptomatic of a moment of convergence...because no one is sure what kinds of functions should be combined, we are forced to buy a range of specialized and incompatible appliances" (Jenkins 2006:15).

[5.4] Aside from noting the evolution of (media) technology to digital forms, which Jenkins divides from "old" analogue media (as do many other scholars; see, for example, Wardrip-Fruin and Montfort 2003; Manovich 2001), Jenkins remains vague on—and then ultimately overlooks—the "forces" that might be driving a convergence of commodity types and forms, and a fracturing of hardware into "must have" specialized pieces (note 10). Contemporary conditions of late capitalism, a frame that doesn't clearly enter into Jenkins's consideration, is likely a very significant force impacting—compelling, structuring, and in fact creating—the changes that Jenkins observes. As Hardt and Negri clearly remind us in *Empire* (2000), capitalism is aggressive in its move to subsume all areas outside of itself.

[5.5] Expanding the sphere of circulation can be accomplished by intensifying existing markets within the capitalist sphere through new needs and wants...Capitalism is an organism that cannot sustain itself without constantly looking beyond its boundaries, feeding off its external environment. (2000:224)

[5.6] The creation of "new needs and wants" in consumers—the ability to continually and flexibly commoditize newer, previously external, or inalienable forms of living (for example, women's reproductive rights becoming purchasable through surrogate agencies)—is a primary mechanism of capitalism's success. As Marx clarified in *Grundrisse*, "A precondition of production based on capital is therefore the production

of a constantly widening sphere of circulation, whether the sphere itself is directly expanded or whether more points within it are created as points of production" (Marx 1861:407). LiPuma and Lee also argue, in their discussion of financial derivatives, that the "global expansion and power of capitalism are now bound up with its capacity to organize cultures of circulation," particularly the circulation of "knowledge, money, entertainment, and technology" (2004:9). The production of new consumer needs and desires, and the creation of consumer identities and lifestyles through product customization and "niche marketing" (see Dunn 2004) as well as capitalism's pure geographic spread into literally new markets and areas—a process of internalizing the external (Hardt and Negri 2000)—are all forms of (widening) circulation. Our BlackBerrys, cellphones, and day planners may not simply be designed to fit the diverse, contextual needs of our e-mail viewing; instead, the profit-making needs of capitalism simultaneously produce goods and the lifestyles that demand those goods in ever widening, ever mutating circles. Any discussion of media convergence, then, could benefit from the consideration of contemporary conditions of late capitalism at work.

[5.7] Considering modes of convergence—or collapsing—both Castells and Terranova have argued that, with the advent of a "networked society," communication technologies like the Internet bring about "a greater possibility of disintermediation" (Castells 2001:84).

[5.8] Advertising campaigns and business manuals suggest that the Internet is...a site of disintermediation (embodying the famous death of the middleman, from bookshops to travel agencies to computer stores).
(Terranova 2000:34)

[5.9] Although this may be true in part—we book our own airplane tickets and buy direct from online "wholesalers," cutting out the intermediaries in these instances—"disintermediation" ignores the way communication technologies themselves act as and enable new forms of mediation (note 11). The spaces and needs for (human) mediators may be simultaneously expanding, veering, or mutating even while other forms of intermediation—the travel agent, the salesperson—are dissolving; there are other types of divergence, then, occurring along with the hardware diversification that Jenkins discusses.

[5.10] In his introduction to *The Social Life of Things* (1986), Appadurai wrote, "Commodities represent very complex social forms and distributions of knowledge. In the first place, and crudely, such knowledge can be of two sorts: the knowledge (technical, social, aesthetic, and so forth) that goes into the production of the commodity; and the knowledge that goes into appropriately consuming the commodity" (1986:41).

[5.11] The globalization of capital and the transnationalization of production networks, a very practical arrangement of geographically dispersed "links" on a commodity chain—parts from Singapore, labor in China, corporation in Canada—is a very obvious example of the kind of distance that can grow between points of production and then, ultimately, consumption. However, poles of production and consumption aren't split merely through geographic distance; even as the speeding up of information and data transfer allows sales clerks to upload consumer profiles instantaneously to the shop room floor (next door or time zones away)—as in Castells's example of the clothing manufacturer Zara (2001:74)—product "customization" is not the straightforward insistence of a diversified global market or a simple byproduct of "cultural change" (Castells 2001:77). As Appadurai pointed out, commodity knowledge concerns how to "appropriately" consume. (Part of what becomes appropriate under Toyotism is the understanding that consumers have the right—in fact, the need—to demand personalized commodities, the diversification of just-in-time tailored goods.) The growing role of immaterial labor (affective, free, or otherwise) as a function of contemporary conditions of late (or even millennial) capitalism is linked to the divergence of production and consumption knowledge ([note 12](#)). Inserted as nodes in (business, economic) networks, the very function of this work is often simply to mediate, to produce the "appropriateness" of our consumer hearts. Immaterial labor, as defined by Lazzarato, is "the labor that produces the informational and cultural concept of the commodity":

[5.12] Immaterial labor involves a series of activities that are not normally recognized as "work"—in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and more strategically, public opinion. (1996:133)

6. Mediating video game value

[6.1] Video game journalists, then, as immaterial laborers, work explicitly to "define and fix" the consumer norms, desires, and tastes of video game fans; they don't make games themselves, but rather they function to create a continued need among consumers for games and to situate a gaming lifestyle or gamer identity—necessarily linked to continued emotional and monetary engagement—as desirable. Positioned between production and consumption, game journalists mediate "appropriate" game knowledge as well as commodity value; as middlemen, they "simultaneously bridge and divide the segmented knowledges of producers and consumers" (Foster 2006:292). Game journalists are not just direct conduits of valued/valuable insider knowledge (What makes Cliffy B cry? What inspires Suda 51? What will Bungie do now that they have left Microsoft? What will be the PlayStation 3's "killer app"?)—they help produce and define that knowledge as valuable. They are also explicit gatekeepers,

determining what kind of knowledge is passed on to consumers and structuring the ways that gamers are, in turn, able to evaluate that knowledge. As journalists act to insert themselves in the production of commodity value, their role requires the continual negotiation and performance of valid/valuable expertise; when journalists preview, review, and rate games, they do this explicitly. They articulate appropriate consumption knowledge by creating and reinforcing categories, distinctions, criticisms: what makes a game good; what game or game play is worth consumers' attention; how much particular types of games should cost; even evaluating and determining what makes a game *a game* or conversely not a game. This in turn impacts how consumers understand the value—and meaning—of the games they consume. Simultaneously, as so clearly evidenced in Dyack and MacDonald's podcast debate, journalists also impact how producers create and imagine their games and, in turn, are able to attract and communicate with consumers.

[6.2] Fans purchase or seek to acquire through other means the journalist's expert knowledge, symbolizing an established consumer trust in that knowledge. MacDonald and the other podcast hosts continually emphasize the need for their work to remain critical and honest so that consumers can trust their judgments and opinions. As Appadurai has explained, "In complex capitalistic societies, it is not only the case that knowledge is segmented (even fragmented) as between producers, distributors, speculators, and consumers...the fact is that knowledge *about* commodities is itself increasingly commoditized" (1986:54).

[6.3] Game magazines are explicitly commoditized knowledge and are often, along with other journalistic produced materials such as blogs and podcasts, the only route to prized insider or expert knowledge regarding future productions, release dates, and industry personalities, all which expert fans might—convinced from within fan circles as much as from magazines themselves—believe must be consumed to make one a "real" fan. As Bourdieu has argued, "A work of art has meaning and interest only for someone who possesses the cultural competence, that is, the code, into which it is encoded" (1984:2). Gamers learn that code, in part through the media they consume that surrounds the game commodity; gamers learn—often communicated to them through the enthusiast press that assists in producing "new needs and wants"—how to appropriately be a video game fan.

[6.4] While journalists are mediators of value, their agency, their ability to manage segmented knowledges and add value to—or subtract from—the commodities of their interest, is knit up in webs of other actors, both human and nonhuman: production practices, insider relationships with developers, exclusivity deals, nondisclosure agreements, markets, technology, distribution channels, magazine publishers, subscription numbers, and genre conventions. As discussed previously, video game

journalism as a practice has a particular history—a particular relationship to the game industry—that continues to shape the role of game journalists and the available options they have for mediating commodity value and the related, appropriate knowledge. Historically, magazines and other games-related media functioned mostly as advertisements or consumer reports—positioning journalists as marketers—resulting in the development of a distinct symbiotic relationship between journalists and producers. Journalists were also traditionally themselves video game fans, and as MacDonald reminded Dyack during the 2007 podcast, "I like to think I have the same expectations [as the reader], I mean I'm a gamer...and I go into it with that in mind." Game journalists, then, are able to oscillate between the spheres of production (exclusivity deals, swag, trade show parties) and consumption (opinionated previews, game ratings, industry criticisms), simultaneously positioning themselves within both communities.

[6.5] The impact of this history continues to linger, even as the role of game journalist is itself transforming, though contested in a variety of ways and by a variety of different actors. Dyack is an example of one such actor, and journalists like MacDonald are another. The role of the enthusiast press is also challenged by the fact that game journalism must become inclusive of a wider set of actors. Through alternative distribution networks (downloadable content, for example) and alternative media outlets (personal blogs, Web forums), consumers take on the role of journalists (or interact with "real" journalists to directly and explicitly challenge them), while game makers, with their own company sponsored podcasts and Web forums, hope to bypass traditional press outlets and the mediating agency of journalists. One such forum, the popular message board *NeoGaf*, is a good representative of the unruly nature of contemporary gaming spaces. Described by its owner Tyler Malka as "as a nexus of fandom, media, and industry" (quoted in Ashley 2008), *NeoGaf* is a space where game developers, corporate executives, journalists, and fans all merge, each performing their expertise and battling (as did Dyack in his notorious *Too Human* posting war) over who has the right to mediate commodity value.

[6.6] The EGM Dyack/MacDonald podcast was only the beginning, a small indication or a visible moment of the mediation at work among the day-to-day habits, routines, tasks, and decision-making practices of video game journalists. It was a small example of the work that is being done by immaterial laborers who—as they slip into, and help to widen, the notches created by the forces of late capitalism—shape our lifestyles, identities, desires, knowledges, and needs. As our understandings of the easy categories we tend to cling to—producer, consumer, marketer—continue to collapse and mutate, what comes next is to trace the threads that lead away from the Dyack/MacDonald podcast and into larger social fields and moments; to follow those

threads outward and inward to other scales and networks, where other moments of value contestation continue to flourish, expand, and extinguish.

7. Acknowledgments

[7.1] This essay is based on a coauthored paper presented at the 2007 Annual Meeting of the American Anthropological Association, titled "Too Human Versus: Cultural Brokers and the Ethnographic Study of Video Games." I'd like to thank my coauthor, Jonathan Corliss, for his tremendous help with this new version and for his continued support and insight.

8. Notes

1. Dyack's vocal defense of *Too Human* and his frustration with journalists and fans (and their practice of judging a game through early production stills and demos) continued to appear on diverse sites across the Web until the release of *Too Human*. In particular, Dyack prompted a heated debate on the pages of the gaming forum *NeoGaf* (<http://www.neogaf.com/>) when he took posters to task for their negative criticism of the game in his June 25, 2008, thread "Too Human—Stand and Be Counted" (<http://www.neogaf.com/forum/showthread.php?t=318653>).
2. In October 2006, in an effort to curb the spectacle of E3, which was attracting upward of 60,000 attendees, many whom were considered nonprofessionals, E3 was officially renamed E3 Media and Business Summit and became an invitation-only event. In 2007, E3 was moved to Santa Monica, California, and was held in July.
3. For example, Xbox vice president Peter Moore lifted the sleeve of his shirt on stage at E3 2006 to expose *Grand Theft Auto IV* (Rockstar Games, 2007) tattooed on his shoulder, a dramatic way to announce the series would be released simultaneously on Microsoft's console. Previous games in the *Grand Theft Auto* series had been first released for Sony's PlayStation console and then later ported over to the Xbox.
4. Similar to film teaser trailers, game teaser trailers are typically short and are designed to be flashy and excite (or inform) an audience about a game that either has just entered development or is a year or two from release. Typically, these teaser trailers show very little final in-game or game play footage (because it might not even have been developed yet); instead, footage is often created specifically for the advertisement.
5. Game play footage—images of the game as it is being played—differs from cinematic or cut-scene footage, which typically is unplayable (the gamer sits and watches a short movie as an interruption to game play). Cut-scene footage is often

prerendered (that is, is not rendered by the gamer's hardware in real time), and its graphics may often be of a higher quality than game play from the same game. Since the notorious release of a teaser trailer for *Killzone 2* at E3 2005—the audience was lead to believe that the footage shown was being rendered in real time but later discovered it was entirely prerendered—many trailers begin with disclaimers stating whether the footage is in game or not (that is, rendered in real time).

6. MacDonald asked Dyack on the show to talk about the circumstances that led to the production of the build that was presented at E3, saying, "Because, I mean you've talked a little bit about it before, the game was running better, right? And just the nature of game development, you getting a new version of the engine, that sort of thing, there's no time." Dyack responded, "The bottom line is, in game development, things are going well, [but] the next week you hit a bug, and it just takes everything to the ground."

7. *Electronic Gaming* is reported to have been the first U.S. consumer magazine focused exclusively on video games. The magazine ran for 3 years, from 1981 until the video game crash (Cifaldi 2005). *Nintendo Power* began publication in 1988 after Nintendo entered the failing U.S. video game market with the release of the Nintendo Entertainment System in 1985.

8. For a detailed discussion of *Nintendo Power* and Nintendo's early business practices, see Sheff (1994).

9. Magazines like *Official PlayStation Magazine* and *Official Xbox Magazine* as well as *Nintendo Power* are exceptions.

10. Another important point that Jenkins makes about convergence is the way it is "both a top-down corporate-driven process and a bottom-up consumer-driven process"; he argues that "the new consumers [of new media] are active" in contrast to the passivity of old consumers (2006:18). Jenkins's emphasis on the agency of consumers who, through their consumption, production, and interaction with commodities, are "fighting for the right to participate more fully in their culture" (18) lacks attention to complex forms of agency, manipulation, and resistance that may exist on the part of both producers and consumers (and "pro-sumers"). Additionally, Jenkins's emphasis may overlook the way digital media (production) also produces new forms of exploitation for workers and consumers. For a discussion of free labor in the digital economy, see Terranova (2000). A more through discussion of these points is necessary but outside my scope here.

11. Jenkins's work might also benefit from attention to the way technology itself is an active, mediating agent, shaping and producing human relationships and habits.

Instead, he argues that "convergence does not occur through media appliances, however sophisticated they may become. Convergence [only] occurs within the brains of individual consumers through their social interactions with others" (2006:3).

12. Even as consumers become "pro-sumers" and "take media in their own hands" (Jenkins 2006:17)—a process that isn't necessarily new—their practices and knowledge, I argue, are still subject to forms of mediation, whether directly through mediators, as in my example, or through technology, mass culture, consumption patterns, or more broadly the conditions of late capitalism.

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Praxis

The everyday lives of video game developers: Experimentally understanding underlying systems/structures

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[0.1] *Abstract*—This essay examines how tensions between work and play for video game developers shape the worlds they create. The worlds of game developers, whose daily activity is linked to larger systems of experimentation and technoscientific practice, provide insights that transcend video game development work. The essay draws on ethnographic material from over 3 years of fieldwork with video game developers in the United States and India. It develops the notion of creative collaborative practice based on work in the fields of science and technology studies, game studies, and media studies. The importance of, the desire for, or the drive to understand underlying systems and structures has become fundamental to creative collaborative practice. I argue that the daily activity of game development embodies skills fundamental to creative collaborative practice and that these capabilities represent fundamental aspects of critical thought. Simultaneously, numerous interests have begun to intervene in ways that endanger these foundations of creative collaborative practice.

[0.2] *Keywords*—Anthropology; Creative collaborative practice; Experimental system; Game studies; Games; Video game development; Work/play

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1. Introduction

[1.1] When people talk about video games and the rules or games that reside within them, I frequently hear them mention game developers as almost malevolent gods: those who reign over the natural order of the system, a system that rightfully belongs to its players. But that wouldn't be the same game, would it? Aren't the artificiality of the constructed systems and the process of determining those rules what make it a game in the first place ([note 1](#))?

[1.2] This essay examines how tensions between work and play for video game developers shape the worlds they create. The worlds of game developers, whose daily activities are linked to larger systems of experimentation and technoscientific practice, provide insights that transcend video game development work ([note 2](#)). The essay

draws on ethnographic material from over 3 years of fieldwork with video game developers in the United States and India. I develop the notion of creative collaborative practice based on work in the fields of science and technology studies, game studies, and media studies. The importance of, the desire for, or the drive to understand underlying systems and structures has become fundamental to creative collaborative practice. The essay makes the argument that the daily activity of game development embodies skills fundamental to creative collaborative practice and that these capabilities represent fundamental aspects of critical thought. Simultaneously, numerous interests have begun to intervene in ways that endanger these very foundations of creative collaborative practice.

[1.3] This essay is structured to step into the everyday lives of video game developers and is organized around the consequences for creative collaborative practice. I begin by examining the category of work/play described as *instrumental work/play*, which is core to the process of understanding underlying systems and structures. The desire/drive/process to understand is ever present in the second part of the essay, which examines the tools of video game development. These are termed *experimental systems* that are able to plug into instrumental work/play in ways that enable our pursuit of underlying systems/structures, often in seductive ways. The third section of the essay examines the consequences and implications of how these systems and drives have assembled themselves and ultimately what the implications have been for creative collaborative practice.

[1.4] The subject of creative collaborative practice arose from my research in core categories. It became a means to address and talk about a system of interconnections between myself, my informants, and the structures that enable and constrain video game developers. It was a means by which to account for "how various kinds of systems (textual, social, technological, etc.) hang together," and how those systems "are continually being reconstituted through the interaction of many scales, variables, and forces" (Fortun 2006:296). Because of the complexity of this overall system, I focus here on the desire for or the drive to understand underlying systems and structures, which is one component or subsystem within the broader category of creative collaborative practice. The foundations of this system are shown in figure 1.



Figure 1. A cloud diagram depicting the numerous subsystems that plug into the larger system of creative collaborative practice. The image demonstrates how creative collaborative practice, as my particular object of concern, is connected with other areas of inquiry and investigation. [[View larger image.](#)]

[1.5] Ultimately, it is the entire system of creative collaborative practice that is important, and at times it can seem that parts of the story, such as subsystems or structural elements, are missing, in part because they are. To address the entire system, subsystems, and structures in one single essay would be a disservice to the complexity of the overarching system. Where necessary I have tried to help illuminate connections, though I do not explicitly focus on them ([note 3](#)). This allows me the opportunity to focus on particular elements of the systems that are likely the most relevant for a given community. For example, creative collaborative practice as an analytic category offers the most insight for communities interested in fan- and user-created content because of its crucial interest in understanding underlying systems and structures and the desire of would-be-developers to care about how games work and how they can be created. That desire is a particular leap necessary for creative collaborative practice and also a precursor to wanting to make games. Most game developers can recall one particular event that caused them to care about how games are made and encouraged them to attempt to understand what precisely was going on within these systems. Fans and users interested in creating video games have started this transition toward a desire to understand what lies beneath.

[1.6] At first, the conclusion appears too simple: that the very real worlds of game developers obviously shape the virtual worlds they create ([note 4](#)). They too are influenced by the play of games and the reading of other virtual worlds. Games dominate the language of both work and play for gamers and game developers alike. Most game developers have an extensive history of playing games and the line between the fan/user and the aspiring game developer is often not clear. While this is not always the case, it is predominantly so. Even game developers who, prior to working in the game industry, did not consider themselves gamers have one of the latest console systems. Many try to play, at least casually, the newest and most

popular game titles in order to keep their shop talk up to date. However, it would be folly to think that this is done simply as a mechanism to keep others at bay or explicitly exclude. This vernacular, which I have come to term *game talk*, does work for game developers. Game talk provides discursive resources for developers when trying to describe abstract concepts like game mechanics—that is, the underlying game that is then presented on a screen. Think of it as the rule that higher cards beat lower cards, and equal cards mean war in the card game war. Game talk is a way to talk about or understand those underlying systems and structures they are attempting to create.

[1.7] Game talk also serves as a bridge between the many different backgrounds of those who come to find themselves in video game companies. There are four primary disciplines that structure game studios: engineering, art, design, and management. Engineering tends to be made up of computer scientists, electrical engineers, and physicists. Artists tend to come from numerous artistic backgrounds, though all have at some point become proficient using digital art production tools like 3D Studio Max, Maya, and Photoshop. Designers tend to come from a variety of backgrounds, with the only commonality being their love of and interest in creating games. Managers tend to have risen through the ranks as engineers, artists, or designers. Occasionally they will have returned to school in order to learn management or business as a discipline, though this is quite rare. Two new subdisciplines or specializations have formed recently between engineering, design, and art, dubbed the *tools engineer* and *technical artist*. There are of course other aspects of game development, such as quality assurance (QA), information technology support, facilities management, marketing, human resources, and administration, which are all vital to the functioning of a studio. However, in an effort to focus on the work of game development practice, I tend to concentrate on the four disciplines and two subdisciplines that make up the majority of a studio's staff.

[1.8] Because there is no discipline of game design or game development, games become a kind of lingua franca ([note 5](#)). When you think and talk about games, they become aspects of the workplace. One particular experience while in the field demonstrated the importance of this vernacular for developers. The term *vertical slice* loomed large in the discourse of game development when I found myself among the developers of my primary fieldsite. Vertical slice is having one example of everything that would then go into the game; examples of every special effect, every game mechanic, and one feature-complete sample level; one of everything. In its crudest form, vertical slice can be a complete demo of a game. More often, it is more nuanced, where a slice demonstrates particular or single aspects of a game (such as a particular mechanic, visual style, or effect), which then can be iterated over with close attention to those specific details. For game developers the choice of which of these definitions

will be used is often dictated by the publisher or someone external to their company. The following is an excerpt from my fieldnotes during the lead up to a vertical slice. It demonstrates how game talk serves as a discursive tool for game developers.

[1.9] Vertical slice was looming. When deadlines loom, more meetings crop up, it seems inevitable. This meeting was about attempting to figure out the game mechanics of a possible, but not for sure, WiFi multiplayer aspect of the game. Of course everyone was already tired and the thought of having to define a new game mechanic and underlying technology to support it was low on everyone's list of priorities. Engineering was saying one thing, Design was saying another, Management was saying a third. At least from my seat, it seemed like they were all saying the same thing, but the meeting continued for nearly an hour before one designer looked at an engineer and asked, "So, do you mean it's like *Spy vs Spy*?" (figure 2)



Figure 2. A screenshot of the game *Spy vs Spy* (1986) for the Nintendo Entertainment System.

[1.10] After this suggestion, Engineering thought for a moment, and said, "Yes, like *Spy vs Spy*." Management and the other designers in the room also nodded their heads.

[1.11] *Spy vs Spy* is a game with a long history of its own, but the mechanic that interested my informants was the idea that rather than engaging in direct combat (that is, shooting or punching an opponent). the players would set traps for one another. Much as other researchers studying scientific fields have noted, game talk accomplishes numerous tasks for game developers. It "creates, defines, and maintains the boundaries of this...community; it is a device for establishing, expressing, and manipulating relationships in networks;...it articulates and affirms the shared moral code about the proper way to conduct [scientific] inquiry" (Traweek 1988:122).

[1.12] While game talk can be a productive tool for uniting disparate disciplines, it can also be used to exclude. Difficulty with game talk was encountered by many women working in the game industry, who may have been familiar with a smaller subset of games, but frequently found themselves outside the margins of knowing about particularly obscure or marginal games. Although the following quotation concerns the world of high-energy physics, many of the same things can be said of game development.

[1.13] Access to this world of oral communication is quite limited. In a community with easy access to widely disseminated written information, keeping crucial information accessible only in oral form is an impressively effective means of maintaining its boundaries...Protection of oral communication encourages the development of a closed community. In physics it is consistent with the group's image of itself as a meritocracy: only an informed, worthy member of the community will know what is to be said and what is to be written. (Traweek 1988:120)

[1.14] The focus on oral communication proved especially troublesome for many of my Indian informants. While some were avid gamers on personal computers, few had grown up with console game systems and they had not necessarily played the many games that were released on the Nintendo Entertainment System, Sega Genesis, Super Nintendo, or numerous other consoles produced during the 1980s and 1990s. This was frequently exacerbated by the idea that games were entertainment, and time was better spent by young people studying, rather than playing games. The Indian game industry is dominated by artists because most studios have only been contracted by U.S.-based studios to do art production work. There are a handful of companies that have attempted to overcome this limitation by using their contract work to fund internal game development. More recently, as large publishing companies like Electronic Arts have begun creating studios in India explicitly to house large numbers of digital artists, it has created unique difficulties for studios that are attempting to advance their companies by fostering talent internally. Rather than expecting their employees to already be versed in the language of games, Indian game studios have in many cases built rooms where employees can play games in their off hours or even as part of normal working hours. These rooms typically have consoles, computers, games, and couches, where game developers can increase their knowledge of those games that U.S. developers frequently reference in their day-to-day exchanges.

[1.15] This language set is the foundation that video game developers use to plug into broader work/play systems. Game talk becomes a means into or a means of understanding the underlying systems and structures of video games. Game talk serves as the working manual that instrumental play depends on where a formal

discipline, handbook, or set of standards does not exist. Game talk connects with the desire or drive to understand how these systems operate because it provides a resource by which to get inside them.

2. Instrumental work/play amid rigid systems

[2.1] For many game developers, if the process of creating games can be considered a game, then, at least as currently configured, it is a game for power gamers. I have come to call numerous aspects of video game development work practice *instrumental work/play*, a process essential to all aspects of game development. In many cases, it is impossible for artists, engineers, or designers to know precisely what they can manage to create without causing the underlying hardware to buckle under the pressure. Thus, instrumental work/play is the process/drive/desire to determine how to get the most out of the systems required to get the job done. The slash between "work" and "play" represents the ambiguity that often is present when people talk about these activities. Some classify it as work and others as play, and time and space affect that categorization.

[2.2] There is another piece that drives game developers and workers in the New Economy more generally—an aspect of the work that encourages workers to push further and harder than may be necessarily required. Perhaps on some level it is a realization of a Protestant work ethic based on the idea of a calling (Weber 2002), but corporations find that their workers are plugged into their work in new ways. As sociologists and ethnographers of virtual worlds and gamers more generally demonstrate, the reason for this goes beyond the simple answer "because it is fun," which the work may very well be some of the time. More than that, the extra work from workers gets at an underlying drive and dedication to "efficiency and instrumental orientation (particularly rational or goal-oriented), dynamic goal setting, a commitment to understanding the underlying game systems/structures, and technical and skill proficiency" (Taylor 2006a:72–73) on the part of game players. The instrumental or power gaming of the workplace is part of a desire to understand the structures workers move within—knowledge that will help workers do their jobs. In part, this is a product of a system that seems arbitrary or imposed, and hence the "broader ambivalence about what constitutes legitimate play[/work]" (2006a:72–73).

[2.3] It is this ambivalence that plugs into the mystique or desirability of video game development work. Game development work is not "real" or "ordinary" work and developers' presentation of game development work as hard but separate from other work provides a kind of cachet. As cultural historians and scholars of ludology (that is, the study of games) have noted in their examinations of play, all playgrounds are "marked off beforehand," providing the grounds for a new "absolute" order. "Into an

imperfect world and into the confusion of life [play] brings a temporary, a limited perfection" (Huizinga 1971:10).

[2.4] As the following quote by an engineer notes, up-front information does not always determine what can or cannot be done.

[2.5] Well...I guess the biggest thing is art, and they try to scope that at the beginning, with technology, the specs that are given about the PSP [Playstation Portable], how fast it is, how many triangles it can render, blah, blah, blah. So most of the, I guess a lot of the performance is on the art side. I mean, there is other performance issues, like physics, and stuff that are big, like our game code (Engineer, personal communication, 2007)

[2.6] But despite developers' best efforts to scope everything out at the beginning based on the specifications of a gaming system provided by manufacturers, developers frequently find themselves having to maintain a "commitment to understanding the underlying game systems." One engineer in particular, after doing specific optimizations for the Nintendo DS handheld console, noted that he had a feel for "every transistor and chip inside that thing" (Engineer, personal communication, 2007). Despite all of the documentation, specifications, and scoping, it required his investigation of and prying into the system to get it to do what they had assumed it would do in the first place. An engineering group manager, who had gone through this process many times, talked about the process of digging into a system at the software or hardware level, and its requisite attentiveness.

[2.7] **Manager:** The process of stuff not working like it's supposed to?

[2.8] **CO:** Yeah.

[2.9] **Manager:** So there are levels, right. And these are especially obvious to the new people. Where you cannot perceive of a reality where something doesn't work. Because it obviously should, right? So there is an emotional component of it where you just won't even believe it, you'll be like, "that can't be broken." You gotta get over that pretty quick. And I guess that's where the logical part comes in. You say, well, you know, it's broken. And if you take the time, the gruesome horrible time, you can always, if you have to, map out the transistors, and follow the flow of logic. It will all come out in the wash. So you have to be persistent. (Engineering group manager, personal communication, 2004)

[2.10] While some science and technology studies scholars have written about the process of debugging or feeling out systems as "being in a cave" (Turkle 1997:225), it is actually not so unsystematic. Just as much can be learned from negative knowledge,

from understanding the limits of what is known. As noted by sociologists, negative knowledge can provide focus, "things that interfere with our knowing, of what we are not interested in and do not really want to know" (Knorr-Cetina 1999:64). The ability to simultaneously think thoroughly/methodically and creatively/intuitively is a different way of thinking about how we come to understand how things work. To get at these underlying systems, as anthropologist of medicine Emily Martin notes, our tasks and relations with them begin to approximate "disorders" where our "exaggerated sense of urgency" and "exaggerated sense of boredom" contribute to our abilities to "stretch, cram, speed, warp, and loop poor old linear time and space." The capacity to "organize the chaotic mix of seemingly unrelated simplistic elements into a more integrated and comprehensive framework of understanding, approaching a clearer picture of complexity," begins to approximate the clinical definition of attention deficit disorder (1997:253–54). Although in both transcript excerpts these are engineers talking about software systems, the same ends up being true for artists and designers. They too depend on layers of software and hardware systems, each with idiosyncrasies. During one conversation, a technical artist talked about how willing artists were to assume that something that was broken was their fault. They would continue attempting to work with a model or other art asset, trying to get it into the game, despite repeated failures. In some cases they would even manage to make something fit into the game that should not have fit in the first place. Even working within the lines established by others, artists will continually modify and carefully check their work to see where changes can be made that improve the visual quality of their work without breaking the guidelines they have been given. Designers will frequently attempt to do things that they have been instructed will not work to see whether they can tweak them so they fall within guidelines.

[2.11] So it is not just technicians or engineers who, as historians and geographers of technology note, work at the "empirical interface between the material world and machine-generated representations of the world" (Downey 2001:229), but nearly every game developer. Each engages with instrumentalist tendencies in an effort to accomplish its goals. It has been said by engineering and design studies researchers that "designing is not simply a matter of trade-offs, of instrumental, rational weighing of interest against each other," that "nothing is sacred, not even performance specifications, for these too, are negotiated, changed, or even thrown out altogether" (Bucciarelli 1994:187). But the fact of the matter is, for game developers, the push-and-pull design process seeks to determine where the bottom is, where structures impose themselves on systems and subsystems. Despite the construction of rigid specifications, they are based on something that must be determined by the developers, and eventually they run into the physical limits of electrons and silicon. Specifications are made, but they are not made up. It is a negotiated process that is, time and again, the product of instrumental play.

[2.12] Studio heads and managers play with their organizations like artists play with textures and models. They must interface and play with game development studios and intellectual property holders that range from movie studios to comic book publishers, console video game system manufacturers, and video game publishing companies. Studio heads and managers also bump into the limits of their teams, their employees, their networks (both social and technological), and their access to secret, proprietary networks. Managers must do as much as possible with as little as possible. Teams will get shuffled around on the basis of the work available. If particular designers have proven themselves able to handle especially restrictive conditions, they may be moved from one project to another in the hopes of bringing new perspectives to existing teams. They must often instrumentally play within the structures of a project that they have been hired to complete. Managers must massage creative visions that differ, and changes will almost constantly be asked for by those who are not affected by the necessary reworking of systems to allow for these modifications. Other actors within corporate institutions will be instructed to use the video game that a studio is working on as a means of negotiating with other institutions. Managers must frequently engage with the management of this system, which in many cases began as play for them.

[2.13] Nearly every conversation with game developers begins with a disclaimer such as, "Not that we are representative of the industry more broadly," or "We do things a bit differently here from the other studios you have probably visited." The consequences of and symptoms of the secrecy that surrounds the daily worlds of game developers have dramatic consequences for those who choose to work in these worlds. Sociologists of New Economy and New Media workers have noted that while the "general lack of formality" may excite and entice young, driven workers, the "blurred lines between work and play pressure workers to participate in implicitly 'non-corporate' culture even if they do not enjoy it, or if they have to put in extra time" (Neff et al. 2005:321).

[2.14] It is not just a demand or coercion that everyone push harder and play/work in the same instrumental ways. Coercion happens; that is undeniable. However, the structures that we must work within are also crucial to why people feel compelled to play. It is not simply the systemization and regimentation of game/sport that causes the loss of gamelike innocence; the issue is larger than that. Simply bringing money in does not automatically ruin the game. The difficulty is that money brings those interested in playing other kinds of games into connection with what many had hoped might stay a game. It is the incorporation of a drive toward institutionalization that changes the game. As anthropologist John D. Kelly writes in the context of American baseball,

[2.15] But it wasn't commoditization that changed baseball so unmistakably. It was higher levels of capitalist organization. Above all, the leagues changed everything. What are they, and what is their relationship to commodities? Commoditization, yes, but we will need more tools than that: we will need to understand whole new layers of management. We will need a theory of the firm. Professional Sports leagues did more than commoditize the game. They incorporated it. What is that? (Kelly 2006:55–56)

[2.16] So what has changed the play of game development into the play/work of game development is the coming together of a willingness to play (or to be coerced into play) in particular ways, along with the systematic incorporation of the video game industry. That move to industry rather than to something else marks an event that begins to alter the space of play. Baseball is one example, but the connections with the video game industry are undeniably industrial. Baseball did not start as an industry, but it has moved to that. It is not simply that people good at playing a game begin to accept compensation to publicly perform their play. That might make it sport, but that, in and of itself, does not account for the work/play conflation. It is the connection with commercial profit-driven organizations that has so dramatically shaped game developers' worlds.

[2.17] At the same time, instrumental play requires feedback from those systems under investigation: surprising answers must be gleaned to provide further insight into how they function. This is the role of experimental systems within the daily activities of work/play.

3. Experimental interactive work/play systems

[3.1] Beyond the imaginary isolation and secrecy of the video game industry, beyond the rise of instrumental play and the rise of incorporated structures in the professionalized game industry, there is something else that gets more deeply at why we might call the work/play of game development "play." It has to do with all the daily activity. But that daily activity is linked to larger systems of experimentation and technoscientific practice: engineers continually bump into and play with the hardware and software of existing systems. Artists constantly play with 3-D models, attempting to balance creative desires with the demands of designers, managers, and the commentary of their peers. Designers tinker with games through custom tool kits and define the structure of play, in which others will participate. Managers experiment with personnel locations and team members active on any given project. Executives juggle product and project lineups. We begin to see why the conflation of work/play might be a useful way for us to consider what is happening during the daily experience of work.

[3.2] Our instrumental play is enabled by the desire for technological systems, data stored on hard drives across the network and checked into version control systems, and even people we can interactively respond to. Communication studies scholars examining digital games find that

[3.3] Digital games are interactive media par excellence because their entertainment value arises from the loop between the player and the game, as the human attempts by the movement of the joystick or keyboard or mouse to outperform the program against and within that, which he or she, with or without networked coplayers, competes. This interactive feedback cycle is often represented as a dramatic emancipatory improvement over traditional one-way media...But we insist these interactive potentialities are historically constrained and structured by the process of game design, technological innovation, and product marketing. (Kline et al. 2005:294–95)

[3.4] The desire for the complex system—game, workplace, peers—to respond interactively is seductive. When it responds like an interactive system, we feel connected or networked. When it does not, we become frustrated.

[3.5] But what about historical structuring aspects of game design and technological innovation? If we had known we were going down this road in the first place, might we have planned better, so they could be more interactive? I suspect not. It simply does not work that way. As historian of biology Hans-Jörg Rheinberger writes about experimental practice and experimental systems:

[3.6] An experimental system can readily be compared to a labyrinth, whose walls, in the course of being erected, in one and the same movement, blind and guide the experimenter. In the step-by-step construction of a labyrinth, the existing walls limit and orient the direction of the walls to be added. A labyrinth that deserves the name is not planned and thus cannot be conquered by following a plan. It forces us to move around by means and by virtue of checking out, of groping, of tâtonnement. He who enters a labyrinth and does not forget to carry a thread along with him, can always get back. (Rheinberger 1997:74–75)

[3.7] Not only have game developers been constructing the labyrinth of game development as they go, they have been doing so in such a hurry that they have not bothered carrying any thread along. Developers have made a headlong plunge in, with no way to get back or untangle their route. They occasionally make retrospective postmortem statements about where they think they have been and where they might have gone wrong. But why, then, do they continually take the same wrong turns? The situation becomes more dire when developers realize that they must maintain the

secret society of the office and game development generally. Suddenly they are not willing or able to talk about the labyrinth in any real detail. They talk about how pretty the vines look, or how they were able to grow them in a particular way, or how they sometimes take wrong turns and have to work late to find their way back. But meaningful collaboration? That has been rendered impossible.

[3.8] Postmortems are a genre of video game development writing frequently found in *Game Developer Magazine* or online at sites like Gamasutra (<http://www.gamasutra.com/>). These are often retrospective documents that look at what went right or wrong during the game development process. Because many companies think that they might be giving away secrets, or because the documents must be cleared by legal departments, they frequently contain few details. In most cases, the more detailed the postmortem, the more likely that it was written by an independent developer or company at the edges of the industry.

[3.9] The implications of these kinds of practices more broadly throughout New Economy business are troubling. If game development is an index into New Economy work, a space where experimental practice is crucial, then the ability to communicate and think about those experimental practices is even more important. However, demands for secrecy seem to have taken precedence over the maturation of game development practice. This pushes the complexity and uncertainty associated with game development practice to greater heights and increasing chanciness.

[3.10] There is a game in this as well. "Tension means uncertainty, chanciness; a striving to decide the issue and so end it. The player wants something to 'go,' or to 'come off'"; we want to succeed by our exertions (Huizinga 1971:10–11). I like the metaphors of the labyrinth and experimental systems because they emphasize the enjoyment of working within limits, but also acknowledge the reality of having those limits pushed. "Not anything goes. If there is construction, it is constrained"; game developers and scientists alike "meet with resistance, resilience, [and] recalcitrance" (Rheinberger 1997:225).

[3.11] What does this have to do with experimental systems and the interactivity of people? Experimental systems have become a useful way to think about game development, in particular the work of designers—those who end up interfacing with the work of engineers and artists. Their tools are created by the tools engineers, but frequently with a mind toward changes down the road. This is also why tools engineers and technical artists accompany these new systems, technologies, and practices. As sociologists of science have shown, "the more automatic and the blacker the box is, the more it has to be accompanied by people" (Latour 1987:137). This is partly because these "outcomes are often not consciously calculated, or even intended by any one of the parties involved" (Knorr-Cetina 1983:130). Because tools engineers are

embedded in a broader social context of practice, they must somehow retain those connections:

[3.12] Experimental systems are to be seen as the smallest integral working units of research. As such, they are systems of manipulation designed to give unknown answers to questions that the experimenters themselves are not yet able clearly to ask...They are not simply experimental devices that generate answers; experimental systems are vehicles for materializing questions. They inextricably cogenerate the phenomena or material entities and the concepts they come to embody. Practices and concepts thus "come packaged together." (Rheinberger 1997:28)

[3.13] Until the time of production, and frequently even after that, almost every aspect of the game development process must act like an experimental system: it must be open or capable of providing answers to currently unknown questions. Sometimes these unknown answers are frustrating, but often they become aspects of the game proper. But more than that, experimental systems must be interactive; they must respond in real time to other technical systems, data, and people. This is where the headlong rush of the game development process becomes readily apparent. As designers play with the art and code that were assembled with experimental tools, the possibility of an accurate reconstruction of the past becomes unimaginable, even for game developers. Rather, many developers—and engineers in particular—hope for the possibility of a kind of *Star Trek* "mind melding," because the reality is that it is impossible to understand fully where the game came from or even where it will finally be when it arrives at Golden Master, the point at which it is ready to be shipped to the manufacturing company for mass production.

[3.14] The daily worlds of game developer work are constantly shaped by work/play forces. Instrumental play and interactive experimentation encourage developers to understand their worlds as separate, distinct, and outside of work, that is, as play. The ability to play with systems providing interactive feedback encourages developers to get into and remain in their work. Instrumental work/play and experimental systems become a kind of double-edged sword, cutting in both constructive and destructive ways. Growth and sharing are promoted by a competitive spirit tempered by the knowledge that sharing and cooperation are not mutually exclusive from good, clean competition. Without that knowledge, secrecy and instrumental play reign supreme. This makes it advantageous to pay special attention to those things that do and do not work.

4. A postmortem on instrumental and experimental work/play

[4.1] In this section, I borrow the form of game developers' postmortems, from which I also take material. As noted above, such postmortems contain explicit examinations of what went right and what went wrong. In many respects, this format hearkens to "the dance of agency" theorized as "a dialectic of resistance and accommodation, where resistance denotes the failure to achieve an intended capture of agency in practice, and accommodation an active human strategy of response to resistance, which can include revisions to goals and intentions as well as to the material form of the machine in question and to the human frame of gestures and social relations that surround it" (Pickering 1995:22).

[4.2] The mechanisms that enable developers to interact with their systems, data, and one another are infrequently discussed or shared. Even when they are, they are simply referred to as tools. No explanation is given about what these technologies do or what they accomplish for game developers. Though they are cited as one of the most important components of the game development process, they are unknown outside of the game industry. The supervisor on the game *Final Fantasy XII* for the studio and publisher Square Enix notes the importance of tools that provide experimental or trial-and-error approaches to design without providing any specific information about these approaches: "Our various in-house authoring tools, coupled with commercial digital content creation tools,...created an environment in which we could use trial-and-error tactics with the new tools while also increasing productivity by using the ones we already knew well. It was especially helpful for us that the in-house tools enabled real-time previews using the game's rendering engine" (Murata 2007:24).

[4.3] This aspect of game development is largely unknown and unexplored by those looking to enter the video game industry. Even more disturbing, these resources are often kept from companies doing offshore outsourcing work for video game studios. Even though the global economy is widely purported to be flat (Friedman 2005), the reality is that development tools are often withheld, which makes work far more difficult. Real-time previews of a game's content inside of a game's rendering engine are frequently cited as essential by artists. Yet time and again in India, I encountered artists struggling to work within the confines of structures unknown and invisible to them because the experimental tools, which would enable them to understand where, how, and why aspects of their work were failing, were withheld by the contracting organization. It is a means of encouraging outsourcing companies to approach only the aspects of video game development that do not put pressure on the game industry more broadly. Outsourcing companies are encouraged to approach only those aspects of video game development that they are contracted to do. Rather than providing them with insight into how games are developed, they are left to rediscover how art assets move into games production pipelines.

[4.4] This is an old way of developing games. Everything is processed by hand in ways that require artists or designers to hassle someone, frequently an engineer, into seeing their work operating within the game. Most game developers use this approach early in their careers for lack of knowledge of any other method. The lead designer of *Diablo II*, which was created by Blizzard Entertainment, one of the largest and most respected game studios, noted the difficulties of not having these tools. *Diablo II* took more than 3 years to develop and required a 12-month crunch period. The producer for *Crackdown* on the Xbox 360, a project that took nearly 4 years, also noted the significant lag times created by poor experimental tools:

[4.5] We developed the original *Diablo* with almost no proprietary tools at all. We cut out all the background tiles by hand and used commercial software to process the character art...The greatest deficiency of our tools was that they did not operate within our game engine. We could not preview how monsters would look in the environments they would inhabit. We couldn't even watch them move around until a programmer took the time to implement an A.I. Even after that, an artist would have to hassle someone to get a current working build of the game to see his creation in action...Our lack of tools created long turnaround times, where artists would end up having to re-animate monsters or make missing background tiles months after the initial work was completed. (Schaefer 2003:88–89)

[4.6] The testing of a single asset could take upward of an hour, directly impacting productivity and indirectly impacting quality since it naturally discouraged regular testing. (Wilson 2007:30)

[4.7] This sort of time-consuming, inefficient process remains the industry standard. Aspiring game developers, including those in India and the United States, and newly created video game companies continue to function this way because this kind of experimental environment seems to be necessary for the creation of video games. No better way has been proposed; nor have new infrastructures been proposed, even though new mechanisms are clearly necessary for this kind of work (note 6).

[4.8] Despite the inefficiencies inherent in the overall construction of video games, flexible technologies have become crucial components in game development, offering artists and designers the ability to alter game characteristics. Although engineering teams must frequently create these tools, they are at the core of what makes game development practice work. The lead engineer on *Battle Engine Aquila*, a game developed for Playstation 2 and Xbox over the course of two and a half years, notes the importance of flexible and modifiable systems:

[4.9] Flexible core technologies. As much information as possible was read in from externally editable files, and several custom editors for different areas of the game were written to allow designers and artists to alter everything from level layouts and unit statistics to graphical effects, without needing code changes...This approach paid off both by reducing the knock-on effects of changes and potential bugs and by enabling a lot of experimentation during the game's development. (Carter 2003:51)

[4.10] At their best, flexible technologies allow members of a game development team to work independently enough that they don't have to constantly depend on the work of others to continue progressing with their own work. The ability to experiment with ideas concerning the constantly shifting set of components that make up a game is essential. In the end, it becomes good design practice to have the ability to expand or contract game components without the intervention of several people. Individuals can work simultaneously on a single component.

[4.11] These technologies also interface with the numerous disciplines that birth them in game development studios. Without engineers who interface well with designers and artists, the result is technologies that do not bridge these ways of understanding the world; they merely reinforce the old ways. One of the most critically acclaimed games of 2007, *BioShock*, which was released on the PC and Xbox 360 and took nearly 3 years and 4,000 files to create, experienced such difficulties, as noted by the project lead: "Many of the processes and tools we used to develop *BioShock* were inefficient or confusing in implementation, leading to slow iteration cycles and bugs" (Finley 2007:26).

[4.12] These tools are, however, frequently written in the engineers' spare time, when the engineers are not needed to provide basic game functionality. These tools, if poorly designed, become hazardous to the health of a project. Too much time is spent attempting to do something that does not work, and rather than approach an engineer to understand why a tool or process is not working, many designers and artists are convinced that it is their fault.

[4.13] But even when tools function properly, the ability to experiment, if taken too far, becomes hazardous. The limit of experimental systems becomes problematic for game developers. At some point, limits must be placed on projects, and experimentation must be given direction. The lead engineer on *Battle Engine Aquila* comments on the double-edged character of these tools:

[4.14] Some of the systems were so flexible that they were being used for things they were never designed to do. While in some cases such uses were perfectly reasonable and even quite clever, in others they posed a major

problem. Code was not optimized to work in the manner in which it was being employed, and hence was running very inefficiently. Sometimes further functionality had been based on this behavior, leading to even more trouble when trying to optimize it. (Carter 2003:58)

[4.15] Similarly, the project manager on the game *Resistance: Fall of Man*, one of the release titles for the Playstation 3, notes:

[4.16] The flipside of homegrown tools and technology is that our tools changed quickly and our ability to properly train people on all the changes proved impossible. Building assets while simultaneously building the tools needed to create them is akin to trying to build a house on quicksand. Artists would literally open their tools one day and discover new interface buttons and have no idea what they were or how to use them. Many assets needed to be rebuilt, re-lighted, and/or re-animated because of changes to our builder tools. (Smith 2007:35)

[4.17] Interactivity and experimentation taken as a goal disconnected from the broader aims of a project, or without a plan or trajectory, prove just as unmanageable as a process with no tools. Without careful attention and planning, the tools that provide the backbone of a game development process can destabilize entire projects. Without training, artists and designers will attempt to do things that perhaps they should not. Engineers will not explain why something should not be done in a particular way or where specific requirements were derived.

[4.18] Interactive work has limits. For example, people must have time to work on and think about their tasks. Although the ability to interactively and experimentally work on projects may work well in many cases, the same tactics can disrupt teams and prevent them from reflecting on the tasks at hand. Rather than critically approaching a problem, they attempt to interactively and experimentally solve the problem. The lead tools engineer on *Asheron's Call 2*, a massively multiplayer online role-playing game (MMORPG), comments on how the process of development, if not carried out carefully, can result in systems created without respect to their surroundings:

[4.19] Coding before design. All the old lessons drummed into my head during school still apply: design in any complex software system is crucial and cannot be skipped. In the early phases of tools development, I tended to jump right into the code pile and start hacking out a solution to the problem. This caused no small amount of headaches when a seemingly small task blossomed into a days- or week-long struggle. (Frost 2003:46)

[4.20] This is the core problem of interactive and experimental systems. On both large and small scales, they can supplant the importance of taking time to observe a situation, reflect on it, make more observations, and then act on the basis of those experiences. Instead, meetings are scheduled, instant messages pass back and forth, e-mails are sent by a build system, or design parameters are tweaked in an effort to correct a problem, which may or may not be solvable with those approaches. Especially as deadlines loom, the desire for an immediate fix, rather than one that takes time to implement, becomes particularly detrimental.

5. Boss fight

[5.1] The ability to get at underlying technical and social systems is the core mechanism of this process; it is central to the creative collaborative practice. Without this capacity, the system begins to collapse. Game developers have spent years wondering why they have yet to find a sustainable equilibrium. The answer lies in pursuing those underlying systems and structures that (dis/en)able the creative collaborative practice. With an understanding of the systems of game development, it's my hope that game developers and workers in the industry will consider more broadly when those structures work well and when they fail.

[5.2] This analytical attention to creative collaborative practice allows us to continue to talk about core categories like work/play, but with greater specificity. By examining the ways that instrumental work/play and experimental interactive work/play systems plug into daily practice, we begin to better understand why spaces of playfulness in the context of work are crucial. This is true for video game development and for other work spaces where disciplines come together, mediated by creole languages or trading zones (Galison 1997). The use of experimental systems and technologies that bridge the numerous fault lines between them is also important (Trawick 2000).

[5.3] Although my focus is on video game development, these tools are also important for the fan/user of video game systems. One example is the numerous systems that *World of Warcraft* players deploy in their attempts to gain insight into the game's underlying systems and structures (Taylor 2006b). Creative collaborative practice is crucial for fan/user interest in video games because it marks the transition from user/player to user/fan or user/creator.

[5.4] In particular, the importance of experimental systems or tools can readily be found among fans/users. Fan/user activities are enhanced or enabled by experimental systems that not only allow them to create within game systems, but also provide insight into how those stories, which prompted them to join fandom in the first place, were constructed. For those interested, these same tools can often be used to better

understand and instrumentally determine where the bottom is for a given game system. As figure 1 shows, there are many components as well as missing pieces from the system that I have termed *creative collaborative practice*. However, it is this experimental system that allows us to find answers to questions we never had in the first place; this is what makes it productive in a research space. It serves as a tool for cultural analysis.

[5.5] One of the foundational aspects of creative collaborative practice is the ability and desire to pursue underlying technical and social systems. This is a playful practice that is also a great deal of work; it requires spaces of play and spaces of playfulness to mature and grow. Its current adolescent state has more to do with the design of game developing firms than an inevitable result of its structure. Looking at work/play and understanding its tendency toward excess offers important insights into understanding creative collaborative practice; similarly, it's necessary to understand the importance and danger of interactivity. The ways that experimental systems plug into our ability to understand underlying systems and structures also structure us; these ways are simultaneously enabling and constraining. If they are too open, then it is difficult to determine how to precisely reach our goals. If they are too constrained, we might jettison the entire system out of frustration. An equilibrium must balance the desires of developers and users/players, and although this equilibrium has yet to be found, it is my hope that the systems of creative collaborative practice can help navigate a solution.

6. Acknowledgments

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7. Notes

1. I intentionally use the term *system* ambiguously. This essay examines the process by which video game developers come to understand and work within underlying systems and structures. If I were to say that a system was one single thing—the circuits of a game console, for example—it would limit the utility of concepts like *instrumental play* or *experimental systems* to perhaps one discipline or one realm of work. But the reality is that systems are ambiguous in the information workplace, and

it is my argument that these conceptual tools span these ambiguous categories in productive ways. Instrumental play of an actual video game is a task or process intimately connected with that of instrumental work in the context of 3D Studio Max by an artist.

2. I tend to differentiate this approach from that of previous work that engages with the complex interconnections between work and play (Dyer-Witheford 1999; Terranova 2000; Postigo 2003; Dyer-Witheford and Sharman 2005; Dyer-Witheford and de Peuter 2006; Yee 2006; Deuze et al. 2007). My focus is on better understanding why that work/play notion continues to stick despite what other researchers have shown. Instead, I am attempting to pull apart in a theoretical way what precisely makes work/play tick. This is not an attempt to theorize on a grand scale what work/play is, as others have done (Wark 2007). Instead, I attempt to tease out specific aspects of work/play encountered in ethnographic fieldwork and understand why they maintain their hold. I do this through connections with the work of scholars of science and technology studies as a means of encouraging greater coverage of the studies of work practice among those interested in work/play. The category of work/play serves as an experimental system that must provide us with different kinds of results to remain productive. Thus I focus on aspects of work/play rather than the monolithic category.

3. For example, in a forthcoming essay, I examine the way particular video game technologies and practices have come to encourage the consolidation and acquisition that now dominates the industry. The construction of "inter/intranetworks" through a combination of nondisclosure agreements, licensing agreements, patents, and copyright has resulted in a conservative industry. The continued emphasis on console video game development has created situations that make it difficult to have any kind of institutional memory. Further, these relationships between developer and publisher/manufacturer are heavily managed and controlled. As I argue in the forthcoming essay, while these networks of (in)access frequently delineate studios that have proven their ability to develop video games, it does not indicate that those who fall outside lack those capacities. There are other factors that influence this as well: organizational structures, systems of systems, software, technologies, and institutions, both legal and corporate. There is continually the sense that there is something else out there influencing these worlds. These too are components of the overall system that video game developers are a part of, and each necessarily shapes the micro level of practice. However, attempting to capture that entire system here is beyond the scope of one essay.

4. Because this work draws heavily on the field of science and technology studies—and the anthropology and history of technology more specifically—I began my research

with the assumption that video games are socially constructed (Bijker et al. 1989). Though I do not elaborate here about how I specifically position my work among that of other science studies scholars, noting that video games are socially constructed would be a weak argument. My research thus attempts to understand the resulting implications and connections.

5. Some might ask, "No discipline? Then what are all of these programs out there that claim to be game design programs?" The answer is complex. One only needs to pose the question on an e-mail list (such as the Gamesnetwork list, whose archives can be found at <https://listserv.uta.fi/archives/gamesnetwork.html>, available to list members) occupied by many of the faculty and professionals who run these programs to be convinced of the thorniness of the issue. The International Game Developers Association Education Special Interest Group has drafted a curriculum framework to begin thinking through what a discipline of game design/development/production might look like. However, because of the interdisciplinary character of the work, the job is difficult. Each program that offers game design programs typically favors one aspect of the process over another. In many ways, this fragmentation is productive, allowing and providing for innovations and specialization in different areas. At the same time, it can misrepresent the situation by masking the complexity of what it takes to make games. This is further complicated by the numerous offerings that deliberately mislead students (Hoffman 2007).

6. Several more publicly available sets of game development tools do exist, such as the Unreal Engine and Unreal Ed, Microsoft's XNA Express tool chain, the Torque game engine, or the multiplatform game development environment Unity. Each of these tools has varying degrees of freedom and licensing agreements that structure them. While these are significantly important tools for the video game fan/developer community, they represent different technological, design, and corporate interests. Some are programming environments, others are most often used as level editors, and others are entire development tool chains. Compatibility, interoperability, and portability are not things that are found in this space, however. Each represents different models or approaches to development. Moreover, many game developers consider this to not be "real" game development work. According to many developers, until you have worked in a space where version control, automated builds, Max/Maya exporters and optimizers, and numerous other "normal" systems are in use, you are simply an amateur. I do not make any statement about the validity of these beliefs, simply that they are commonplace.

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Praxis

Social dimensions of expertise in *World of Warcraft* players

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[0.1] *Abstract*—Expertise development in the massively multiplayer online game *World of Warcraft* (Blizzard Entertainment, 2004) depends greatly on a player's use of social skills to gain access to expert player groups and accrue social and cultural capital. Drawn from ethnographic research, this paper maps out various forms of expert practice and highlights the social aspects of game play that often eclipse the importance of game-mechanics knowledge. At the time of this research, playing *World of Warcraft* and developing expertise in the game happened roughly within a two-stage process: (1) *leveling up*, or advancing one's character or avatar while learning the mechanics of the game, and (2) drawing on social capital gained during the first stage to join a group of up to 40 players to partake in high-end or endgame content.

[0.2] *Keywords*—Digital game; Ethnography; Expertise; Games; Learning; MMOG

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1. Expertise understood through ethnography

[1.1] A recent increasing interest in the use of digital games for education has included a look at designed games or virtual environments for specific content learning (Holland et al. 2003) as well as a look at what players can learn from non-education-specific games (Prensky 2000; Gee 2003). Researchers in the latter field argue that there are certain processes (such as trial and error methods found in inquiry-based activity) to be learned through playing in a rule-based system that may outweigh subject area knowledge acquisition. Yet other researchers look at game players and their literacy practices (Hawisher and Selfe 2007). This increasing interest among educational researchers in digital games is part of a larger scholarly movement that includes humanistic debates on whether games are essentially narratives, allowing for literary analyses, or essentially systems with goals and constraints, begging for process-oriented analyses, and sociological/anthropological examinations of the culture and players around games (note 1). I take a cue from this latter movement to reframe educational inquiry into the learning that happens with digital games by considering the social settings in which learning occurs. When one thinks about learning, it cannot

be disassociated from specific contexts, and in fact, learning is only meaningful if it helps people participate in their activities of choice. One way to examine the learning trajectory is to look at expertise development.

[1.2] Expertise development is not limited to professional or classroom settings and may occur in all the domains of activity in which people participate. In other words, one can be an expert outside traditionally considered domains, and looking at expertise development in these various settings is important for understanding consequential learning across settings. This way of looking at the development of expertise considers it a sociocultural process rather than an individual experience. In other words, individuals participate within a larger social context, and acquiring expertise is, as Collins and Evans (2007:3) note, "a matter of socialization into the practices of an expert group." As Bell and Bricker (forthcoming) further note: "Learning is therefore deeply bound up in an account of expertise development because one must learn what expertise means within the confines of the groups to which he/she belongs, learn what practices and other, possibly tacit, understandings are associated with that expertise, and learn which networks of people and resources are best able to socialize one into these practices and understandings."

[1.3] Other educational researchers have looked at "possibly tacit" forms of expertise using ethnographic methods (Lave 1988; Hutchins 1995; Goodwin 1994). The social and material aspects of expert practices need to be directly observed to get an accurate picture of the interaction that goes into making expertise. This is similar to cultural or social anthropology, which considers *culture* as social relations of meaning-making and not just embodied knowledge in individuals. Boellstorff (2006:31) states:

[1.4] If culture, in Goodenough's (1964) terms, "consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members," then it is hard to explain why men and women, who both can operate acceptably, are nonetheless unequal. Rich and poor people can both speak language, but framing culture on the model of a language elides issues of inequality that can be found in most cultures worldwide. In game studies to date, the relative absence of feminist, political economic, queer, and other theories of culture is striking, particularly given the importance of profit, consumerism, and capitalism more generally in gaming.

[1.5] The idea that learning and expertise development occur within particular sociocultural settings complicates educational research, since it is therefore important to understand how people within these nontraditional settings display and develop expertise, using their own contextualized notions of what constitutes legitimate practice. On top of this, it is helpful to participate in local expert practices to better understand their meaning and value from real experience.

[1.6] In an effort to do this, I participated with and write about a group of players in the massively multiplayer online game (MMOG) *World of Warcraft* (WoW; Blizzard Entertainment, 2004). I will describe WoW more fully in the next section, but for now it is enough to know that it follows a tradition of role-playing games loosely based on *Dungeons & Dragons* (TSR, 1974; Wizards of the Coast, 2008) set in a Tolkienesque fantasy world where players control heroic characters who gain experience and become more powerful through questing and killing monsters. I was a fellow player before I had any intention of studying the game or its players, and my eventual research participants saw me as a comrade-in-arms rather than as an observer. After playing WoW for a while, I came to realize this was a site where people attach deep meanings to their activities and experiences with the game and other players. It became clear that social relationships and connections have a profound effect on an individual player's experience with the game and the social and cultural world of the game make playing it feel very different than playing a single-player game.

[1.7] For example, access to in-game content is often limited by a player's ability to align him or herself with a larger group of expert players, since at higher levels, monsters and quests are not easy enough to overcome alone. This, in turn, depends on successful networking and possessing a high enough reputation, similar to what Jakobsson and Taylor (2003) saw with successful players of *EverQuest* (Sony Online, 1999), an MMOG that preceded WoW. Access also depends on the possession of social and cultural capital (Malaby 2006). These gateways to expert groups are not clearly revealed in existing literature based on survey data such as the research of Ducheneaut et al. (2006). Through longitudinal census data, they found that players tended to form more groups once they had reached level 55 (at the time, level 60 was the highest a character could be in the game). They write: "Therefore WoW seems like a game where the endgame is social, not the game as a whole. One player summarized this situation nicely by saying that WoW's subscribers tend to be 'alone together:' they play *surrounded by* others instead of *playing with* them" (410).

[1.8] There is no doubt about the usefulness of these large-scale surveys, and in fact they complement other methods very well as a way to triangulate and validate findings. Yet, Ducheneaut et al. did not capture the ways players actually group together and the barriers to entry that prevent some players from finding stable groups when they reach the higher levels. I was able to see and experience these barriers firsthand by reaching these higher levels and facing the real difficulty of joining and forming groups. In fact, I only became privy to the endgame stage of *World of Warcraft* after playing for over a year and attempting to join a group for over half a year.

[1.9] Ducheneaut et al. also don't capture the ways in which players may communicate with others through methods such as in-game chat channels or out-of-game voice chat with third-party software or telephones. In other words, players often find themselves mired in a myriad of different communication and copresence practices even when their characters are neither physically in the same game spaces nor in the same in-game group. These are details that were made clear to me through ethnography.

[1.10] Expertise development in *World of Warcraft* is not limited to an individual player's ability to grasp the underlying mechanics of the game. The social dimension—social and cultural capital, social networking, access to expert player groups—plays a tremendous role in whether a particular player is successful and can engage in the various seemingly equally accessible game activities. Playing *World of Warcraft* occurs in roughly two stages: (1) progression through more forgiving early game content and (2) engaging in technically difficult endgame content. Both stages include social elements to success. Expert game play requires complex online and off-line interactions, which are determined by the game stage. Learning and participating in these expert practices define expertise.

2. A *World of Warcraft* primer

[2.1] As stated earlier, *World of Warcraft* is set in a fantasy world full of exotic locales, aggressive monsters, and glory to be had. Players create a character to play by choosing its class (warrior, priest, etc.), race (human, orc, etc.), and sex (figure 1). Character class and race determine his or her initial attribute values (strength, agility, etc.) and the available abilities or actions (such as "Sinister Strike") he or she can perform (figure 2). As a player journeys through the land with his or her character, completing quests and defeating monsters, the character accrues *experience points*, or XP. After a certain amount of XP, the character advances an experience level and becomes more powerful through a rise in his or her attribute values. Additionally, the corpses of defeated monsters can be searched for valuable items (known as loot) that may help characters outfit themselves and be better prepared for future encounters.



Figure 1. World of Warcraft character creation screen featuring a male orc rogue. Summer 2006. [[View larger image.](#)]



Figure 2. World of Warcraft game interface with character panel and agility tool tip. The buttons on the bottom left represent different abilities that can be activated using hot keys (1 through =). Summer 2008. [[View larger image.](#)]

[2.2] During my data collection, WoW had a level cap of 60, which means that characters started out at level 1 and could only advance to level 60, at which point no more XP could be gained ([note 2](#)). This leveling-up process could be seen as the first stage of the game, where players learned the underlying mechanics of the game while making and strengthening friendships and social relations with other players. Expertise for the players I was with, however, was defined by partaking in certain practices during this stage over and beyond just leveling up. Sometimes players formed teams to tackle the same quests or defeat the same monsters. To do this, they joined a *party*, a group of up to 5 characters, or a *raid*, a group of up to 40 characters. Once reaching level 60, players found that the only way to improve their characters was to join a raid that went to endgame dungeons to kill the monsters within for the loot they dropped. This endgame could be seen as stage two of the game, and players generally needed to draw on the knowledge and social relationships formed in stage one to

succeed. In other words, they needed to use the social networks and social capital to gain access to endgame groups. Once formed, these expert groups also needed to learn how to work collectively and coordinate with each other on team-based activities (Chen 2009).

[2.3] It should be noted that looking at expertise development in these two stages is relatively artificial because most players were involved in many activities and group memberships throughout their game-playing lifetimes. Many players, however, liken WoW to two different games, divided by the level cap, and treating these two parts of the game as two different stages with different player practices that emphasize different skills is useful for separating game rules or mechanics-based expertise from socially and culturally relevant forms of expertise. Players see rules-based or content-based knowledge as what defines expertise in WoW, especially in the first stage, but in actuality, partaking of expert practice defines expertise. Ultimately, if the gamers I played with wanted to succeed in their endgame or stage two endeavors, the importance of social networks and social capital far outweighed game-content knowledge.

3. Setting, group, and data collection

[3.1] *World of Warcraft* had about 6.5 million subscribers in the spring of 2006, the time of my research, and currently has over 11 million subscribers. The subscribers are divided up by region (North America, Asia, etc.) and time zone. Each of these zones has separate computer servers, each running a different instance of the game, so that each server has about 3,000 players. Blizzard Entertainment, the creators, decided to create different types of servers for players to log into, catering to different play styles. The server that some existing friends of mine and I joined was a North American role-play server, where players agreed to use character names that stayed within the fantasy lore of Warcraft. We chose a role-play server because players also agreed to restrict the content of their communication to in-game topics and limit their use of *l33t speak* or abbreviated shorthand commonly associated with texting or instant messaging. In reality, there did seem a tendency for more in-character talk and less *l33t speak*, but out-of-game references and abbreviated forms of communication still occurred, especially in private back channels and during moments where efficient, combat-specific talk (such as "rez pls") needed to happen. Our assumption was that less *l33t speak* made for a more mature player base that valued effective communication skills.

[3.2] In the spirit of joining a role-play server, I created a male orc rogue and thought of a back-story featuring him as a "stabby stabby," cutthroat character who had reluctantly joined the Horde in its battle against the oppressive Alliance. My

friends and I quickly formed one of the server's first *guilds*—an in-game affiliation of characters that let players more easily cooperate with others while playing. In the game, we (that is, the guild) had our own chat channel and interface panel to help us see who else was online, so we could form groups or share newly discovered information. Out of the game, we created our own Web site, with forums where we planned play times and events, discussed strategies, argued about character strengths and weaknesses, made "your mom" jokes, and posted links to *World of Warcraft* machinima and Internet memes.

[3.3] The first few months of my playing time were spent leveling up, completing quests, and learning the rules of the game. Over the course of playing, our guild gained members and reputation and formed alliances with other guilds. It is through one of these alliances that I was able to join a raid group for endgame content, about a year after I first started playing the game. I joined a newly forming 40-person raid group that met up each week to delve into the dungeon known as Molten Core for a period of about 10 months (October 2005 through July 2006). For the 8 months after I had leveled up but had not joined a raid, I participated in smaller five-person group activities in a sort of transition or training period meant to get powerful enough equipment for the larger high-end activities.

[3.4] I collected chat logs during my total *World of Warcraft* experience but have limited my research focus to the spring of 2006 when I was in the midst of Molten Core raiding. During this 3-month period, I also recorded video and audio of particular encounters in Molten Core so that I could analyze the in-game actions and our voice chat during them.

[3.5] Molten Core was a volcanic cave deep below Blackrock Spire, located in a fiery, barren landscape. The sounds of lava flows and rushing hot air provided steady background noise as we delved and fought the monsters inside. These monsters included a horde of generic monsters like rocky Molten Giants and two headed Core Hounds (figure 3) and several big "bosses," unique monsters with carefully scripted combat sequences, providing players greater technical challenge, with names like Majordomo Executus and Ragnaros. Like all *World of Warcraft* monsters, each monster in Molten Core had a set of abilities they used when fighting. For example, Molten Giants have a Stomp ability that damages everyone around them. Part of successfully raiding a dungeon meant learning effective approaches to each encounter. For 7 months, we met twice a week for about 5 hours each session, and then for 3 months we met just once a week as we became more efficient in our monster killing. Each week we would attempt to kill as many monsters as possible before the dungeon reset every Tuesday. That is to say, every week we would start anew, and only after doing this for 7 or 8 months were we able to clear the dungeon completely.



Figure 3. A view of Molten Core, a dungeon found in *World of Warcraft*, and the monsters within including Molten Giants and Core Hounds. Summer 2006. [[View larger image.](#)]

[3.6] Over the months, the membership of this raid group fluctuated. We had a core of about 20 players from several guilds who had showed up every week since the formation of the group, another pool of 30 or 40 who were regulars for 2 or 3 months, and another 20 or so who showed up either just once or sporadically. On any given night, we would start forming up about an hour before actually going into the dungeon. If we were short 40 players that night, we needed to invite others who were not regulars by having raid members ask their respective guilds if anyone was available to join us. Often a player/character was invited or allowed to join a raid group only if he or she had a character class that was underrepresented in the existing composition of the raid. Skill was not the only factor, however, as it was clear that preference was also often given to players who were friends with or had established relationships with other members in the raid group. In other words, to be invited, players had to possess enough social capital with other members of the raid group. Once invited, it was assumed that newcomers would need a short training period to adjust to the norms and practices of the group.

4. Stage one: Leveling up

[4.1] Expertise depended highly on social interaction, yet many players held onto traditional notions of expertise and saw expertise while leveling up as defined by a player's ability to kill monsters efficiently. This necessitated knowledge of the multitude of actions available to a particular character class and the underlying math behind those actions. In other words, to these players, an expert had to be able to recognize and understand the game mechanics under the narrative. This essentially is what defines expert status in any single-player game: games are inherently systems of rules that need to be understood to win. *World of Warcraft*, however, is a multiplayer game, and therefore it provides a social setting where success is dynamically defined through consensus on expert practice. This was new for many of

us, who had spent most of our gaming lives playing single-player games. In fact, the game presented different players with hugely varying experiences, much of it depending on their ability to navigate the social world and gain access to expert groups, a process initiated in this first stage of play.

[4.2] With WoW, as with most digital games, a player can go about learning the rules in different ways. The focus for new players tends to be on solving quests and leveling up their characters. To do this, it is possible to simply interact directly with the game and use whatever the game provides for solving quests and killing monsters. It is much easier, however, to reference third-party material like online quest guides to learn how the game works. Many players today, for example, reference Web sites such as Wowhead (<http://www.wowhead.com>) and Thottbot (<http://www.thottbot.com>) to read about quests and to plan an efficient process for completing them. Wowhead and Thottbot are both community driven in that the hints and tips for each quest or item listing are written as comments by users of those sites. The use of these sites is considered expert practice. *World of Warcraft's* lead designer confirmed this when he said, "The people that don't go to Thottbot are the casual players" (Edge Staff 2006). That is, supplementing the in-game resources with third-party tools is the norm for expert or hardcore players, and nonexperts, or casual players, tend just to use what is available in the game. I think this is an early example of expertise being socially dependent, as usage of these sites is propagated through word of mouth. Casual players or players who do not communicate much with others could be oblivious to these outside resources.

[4.3] When my guild first began to play, these sites did not yet exist. In fact, our experiences in those early days were very different and filled with a sense of new exploration and discovery. By the time we hit level 40 or so, Thottbot came into existence, and its use became our standard whenever we were unclear about new quests, but only after we attempted to discover for ourselves how to conquer them. In the early days, the other guild founders and I also tended to group together to work on shared quests as a party. Sometimes we would join a party together even though we were in different game regions and working on our own separate quests or killing different sets of monsters. We did this so we could use the party chat channel, making communication easy across great distances, akin to a radio channel or an Internet relay chat (IRC) channel. The ability to work on different quests simultaneously allows players to gain levels at different paces, accommodating varying schedules.

[4.4] Being able to quest alone or in a small party also simplifies monster encounters because it is usually best done by *spamming* certain abilities: while in a small party, each player focuses on whatever role their character class was meant to play. A warrior, for example, is meant to take the brunt of the monster blows (called *tanking*),

[4.6] Additional add-ons are often used by experienced players to make fights more transparent. Many of these player-created add-ons help lessen the "cognitive load" (Sweller 1988) a player needs to maintain his or her mental model of the fight by visually displaying relevant information that the player can reference quickly, thus allowing the player to concentrate on decision making. A typical fight from this leveling-up stage of *World of Warcraft* might have featured many of these tools (figure 5).



Figure 5. Example of a solo fight in *World of Warcraft*. Individual skill and understanding of the game was all that mattered here. Note the use of third-party add-ons that keep track of things like active abilities (*Slice and Dice*, *Lightning Bolt*) and the current health of both the character and the monster (a *Deadwind Ogre Mage*). Summer 2008. [[View larger image.](#)]

[4.7] Since each player needs to understand the system, even if just in a gross sense rather than exact numbers behind the different actions he or she could perform, this first stage of *World of Warcraft* can be viewed as one of individual cognition. Through the process of leveling up, players get a sense of the effectiveness of all the different abilities for the particular characters they are playing, so by the time they hit level 60, they could loosely be deemed competent players. This does not necessarily make them expert players, however, as it is actually relatively easy to level up. In other words, it is difficult to determine expertise by simply looking at the level of a player's character. Instead, using third-party add-ons and outside Web sites is a good indication of expertise as it is an indication of being able to draw on skills and resources beyond the ones provided by the game, something that was defined by the player community as being expert practice.

[4.8] Leveling up to 60 takes a rough average of 2 or 3 months for people who play about 40 hours a week and are leveling their first character. Meanwhile, players gain reputation and social capital and build on their social networks during this leveling-up process through interacting with other players whom they come across while traveling

the lands. By the time players hit level 60, they have built up a pool of friends they can call on for help or company, as well as a list of players to avoid. Players can designate other players as friends, which then puts their names on a list within the game interface that can be used to quickly see if any of them are online (figure 6). Working together in a party, also known as *grouping*, is the most effective way to determine whether another player is competent and worthy of being placed in the friends list. In this way, players can display expertise through their performance, rather than just giving evidence of the use of add-ons or reaching a high level.



Figure 6. World of Warcraft friends list, part of the social panel built into the game interface. Fall 2008. [[View larger image.](#)]

[4.9] Grouping is also useful to determine how sociable other players are. In other words, no matter how expert a player is, it is possible he or she could be ostracized by certain gaming circles for lacking social skills or, even worse, being outright antisocial. Surprisingly, many players seem to be antisocial, as it is generally agreed that PUGging, or participating in a pickup group, is often an unsatisfactory experience since there is no guarantee that the players in the party would all be sociable or competent. Often, the sociable people are also the competent ones. It is assumed that players who take the time to be conscious of their talk and actions also pay attention to and learn from how others behave.

[4.10] Expert practice in this first stage of playing is the sum of using external Web sites and add-ons as well as learning the mechanics of the game well enough to play

in a team. These are all skills propagated through effective communication and networking. It is difficult to call the gamers who play WoW a single community of practice (Lave and Wenger 1991), since different local groups of players partake in different practices. This makes it difficult to say that all players learn through a process of legitimate peripheral participation (Lave and Wenger 1991) in which players learn the community's norms and practices through observation, trial and error, and apprenticeship. Yet for the gamers I played with, the development of expertise definitely came out of participating and building social capital through normalized communication practices. Learning about the various external resources available to players and about the pros and cons of certain character abilities is facilitated through participation in player communities, both in the game and out of the game. It was therefore extremely beneficial to find and participate in the social elements of the game.

5. Stage two: Raiding

[5.1] If the first stage of *World of Warcraft* depends on individual cognition and expertise, the second stage requires players to transition to a social and collective model of expertise. The social nature of WoW is important in both stages of the game, but endgame activities make it take on a new light and more clearly show how social interactions and social definitions of meaningful play contribute to success. This next stage mostly consists of dungeon-specific settings that require up to 40 players to team up if they are to defeat the monsters inside. It is useful, then, to have an established pool of players to draw from for this new activity.

[5.2] For some of the encounters our raid faced, it was crucially important to have specific character classes in the group composition. For example, it was usually necessary to have a warrior in the party to take the brunt of the blows from the monsters because warriors have high stamina and armor, and it was equally important to have people who could heal the other party members when they took damage. Some encounters were much easier with certain group compositions. This was very important for new bosses, when everything that could be tilted in the raid's favor mattered.

[5.3] Often, however, whom we invited was fully grounded in the various social networks and friends lists of existing raid members. In fact, we sometimes prided ourselves on trying to defeat certain endgame encounters without the optimal group composition. When we were first forming, our raid leader wrote: "As for class balance, I'm not going to tell people who to bring...We're here to have fun, not be forced to do something, after all."

[5.4] Instead, we were more open than some other raiding groups to making sure our friends were being included in our activities. This social obligation we felt was evidence of the importance of social capital and reciprocal friendships, but valuing social skills was not necessarily a given for all players. Some players needed to be primed for socialization. In response to troubles my guild was having with a particular player who was not fitting in, I wrote on my guild's discussion board:

[5.5] So, realize that *World of Warcraft* is NOT a single-player game. The things that make someone a good player in a single-player game do not hold the same value here. In a single-player game, for example, you could concentrate on working the system and maximizing your efficiency in winning the game...In WoW, things work a little differently. The first thought most players have is that to be a good player and work well with a party is to know your class...I'd argue that it is only a part of what makes you a good player. This is because a MMOG is a social game. You have to deal with other people who may or may not be as adept as you. They have different personalities, goals, motivations...Sometimes they are having a really great day, sometimes a really bad day. All the players form a social network and community in which certain behaviors are considered normal and others deviant...So, my point is that just because you are good at your class, doesn't mean you are a good player...We value you as a player, not as a class.

[5.6] As stated earlier, however, the friendships we formed were, in part, due to successful displays of competence with the game. On top of this, we also had a wealth of common experiences to reference, and we had developed a shared culture over the months of play. Referencing "Barrens Chat," for example, elicited a collective groan from any person who had gone through the experience of leveling a character in the Barrens region (WoWWiki 2008).

[5.7] Our knowledge of game mechanics and the usage of add-ons from the first stage of *World of Warcraft* was a solid foundation, but raiding focused on highly technical boss encounters that were uniquely scripted with various events or phases in which bosses activated powerful abilities, and the group could only be successful if players learned to adapt and relearn the ways they played the game. The old method of spamming abilities no longer worked, because raid monsters hit back much harder than previous monsters. Only tanks could take the hits and survive, so their role was to maintain the monsters' attention or aggravation (aggro). Meanwhile healer classes needed to continually replenish the tanks' health while other classes dealt as much damage as possible to the monsters without drawing aggro to themselves (note 3).

[5.8] Similar to the "distributed cognition" that Hutchins (1995) writes about on a naval vessel among its crew and their material resources, the raid as a whole succeeded when simultaneous specialized actions were performed by players who may have only been knowledgeable about their individual roles. For Hutchins, the ship can be seen as an entity whose behavior is completed through collective action and distributed responsibilities. This distribution of specialized roles was built into *World of Warcraft* raiding through its use of specialized character classes. Thus, to succeed, raid members have to trust each other and be confident in each others' expertise and their ability to stay coordinated throughout a fight. This trust is such that the raid members identify with the group, treating the raid as a single entity.

[5.9] Successful simultaneous role-playing includes using specialized chat channels that only players of specific roles can see. For example, in my game play, general raid talk was done using the raid channel while all the rogues used a user-created channel called "madrogues" for talk about rogue-specific strategies. I am able to write about these various chat channels since, as part of my data collection, I subscribed to all the different specialized channels, not just the one for my character class.

[5.10] The talk in all of these channels included questions and answers, conjectures on different strategies, off-task joking around, and pleasantries. Most of this talk was done during planning before an encounter, followed by assessment and reflection time after the encounter. For example, when the raid group was first learning how to defeat Ragnaros, the last boss in Molten Core, preplanning took as much as an hour. This time was mostly spent listening to our raid leader and other players (who had read about or done the fight before) summarize the different phases of the encounter, where each type of character class needed to be standing at each phase, Ragnaros's various abilities and actions, and our instructions during those moments. During their summary, some players would ask clarifying questions or make suggestions for other strategies to use given our particular raid composition. In addition to this in-game preplanning time, we were expected to have read online strategy guides such as The Pacifists Guild's guide to Ragnaros, which is a good 14 pages long ([note 4](#)).

[5.11] Whether it was before, during, or after an encounter, the talk was full of task-specific lingo. Utterances such as, "Remember, ss target will change at Domo, but until then, your rezzer is to be ssed at all times" made complete sense to our group of players. Like any group of people who spend a lot of time together on a shared activity, *World of Warcraft* players develop their own communication shortcuts full of activity-specific references. This is necessary both as a way of communicating efficiently and as a way of affirming and strengthening our cultural production. To be a successful player means participating in a larger shared culture. Players are indoctrinated to WoW's culture during stage one, and their display of cultural

knowledge during stage two becomes more a part of expert practice, though this, of course, is a rough, arbitrary distinction, as cultural capital is continually built on and displayed throughout the full course of playing the game.

[5.12] All this communication may have served to make the task of dungeon delving seem less like work. Unlike in stage one fights while leveling, players assume new responsibilities to other players in stage two fights. Consequently, these encounters have to be planned carefully and are serious business. Group fights while leveling need planning too, but not to the degree found in endgame raids. Physical position matters (figure 7). Often, for example, rogues need to be standing behind a monster's back, while mages and other spell casters need to be spread out around the fight's locus. Many endgame bosses have abilities that affect all characters in front of them or all characters in a tight bunch. This is unlike most nondungeon monsters, where a fight was often between just one character and the monster, and players can't get behind the monster as it would always be facing that one character.



Figure 7. An overhead map—created outside the game—of Molten Core, a dungeon found in *World of Warcraft*, showing example positions raid members took while fighting Ragnaros, the large icon in the middle. Each smaller icon represents a player, with the type of icon indicating character class. Created summer 2008, but depicting Molten Core raiding in 2006. [[View larger image.](#)]

[5.13] Additionally, executing the same abilities used in a basic fight during a raid fight can often result in catastrophic failure. With rogues, for example, it's important to play a careful balancing game using good, steady damage rather than sharp spikes of damage, as is normally the case for preraid monsters. This is because spikes during a raid fight pose enough of a threat to a monster that it would decide to focus its attention on the character that had spiked. Each character class has to adapt to new parameters like these for raid encounters. Failure to do so results in death (figure 8),

making the rest of the raid a more difficult fight. If a critical number of characters die, the fight soon ends in a wipe, where all the characters die because they could not sustain enough damage before the monster(s) killed everyone. When this happened to my group, we would have to respawn or resurrect ourselves and try again, setting us back precious time.



Figure 8. An example of an unsuccessful raid fight with Ragnaros, the final boss in the *World of Warcraft* dungeon Molten Core. Spring 2006. [[View larger image.](#)]

[5.14] Given how varied the fights are in *World of Warcraft*, all successful players exhibit adaptive expertise (Hatano and Inagaki 1986) to some degree in that they are able to adjust to specific monster abilities and choose which personal abilities are most suitable to execute. For raiding, however, the adaptation necessary is in how players think about fights, including a change in player expectations and stance. Some players are able to adapt faster than others.

[5.15] Indeed, the step up in difficulty of boss encounters can sometimes be a shock for new players to raiding, and part of socializing new players includes aligning them to new attitudes. One player wrote on my guild's forums about frustrations over failing at some early raid encounters: "Now I hope no one's getting frustrated. This is how raids go. It's normal: You fight and fight and fight until your gear is broken, repair and do it again. Once you finally get it down you can farm them for loots ([note 5](#)). It can take a while to master these encounters but we're doing good work!"

[5.16] To help do this "good work," my raid group used a common set of third-party add-ons. One add-on, for example, kept track of the threat each character posed to whichever monster was being fought at any given time so that we could be sure not to generate more threat than the main tank. Another add-on kept track of the various abilities boss monsters had available and notified raid members when those abilities were being activated so that we could take appropriate countermeasures. The use of add-ons was part of our common expert practice and exemplifies how we used

material resources to help with our memory and decision-making processes. In other words, our responsibilities and memory were distributed among our raid members and our collective and individual material resources. Installation of these add-ons was required for any new players if they wanted to participate in the raid.

[5.17] Access to expert groups in WoW is done mostly by leveraging existing social bonds. Players' subsequent experience with tasks that depend on position and synergy of distributed specialized roles is the core of the endgame expertise development. Part of this development is an induction into a normalized way of communicating—framing work was done by experts to help align teams to new expectations on in-game encounters. Players who do not have or could not gain access to these groups are dependent on PUGs and, I surmise, are less likely to keep a sustained interest in the game. It is through these expert groups that players share knowledge about new add-ons and new strategies to use on raid encounters.

6. Expert practice

[6.1] The social nature of *World of Warcraft* is a given, but a player's experience depends more on these social elements than his or her personal game-content knowledge. Thus, mastering WoW is more than simply mastering a particular character class; it also means being able to move in various social circles and communicate effectively. It means being able to use third-party tools and other resources that have been taken up by expert players as common practice.

[6.2] Ethnographic methods helped me immensely in learning what common practice was. In addition to using certain add-ons, a new practice when I joined was the use of outside Web sites to discuss in extreme detail the strategies, abilities, and effectiveness of particular ways of playing specific character classes and how to improve one's performance and value for a raid group. The theory crafting for rogues on Elitist Jerks' Web site (Elitists Jerks 2008), for example, is aimed at helping rogues maximize a steady damage stream specifically for raiding. The high-level talk found on this Web forum, with all of its shortcuts and jargon, is more readily understandable to people with an intimate knowledge of the rogue class. The best way to gain this knowledge is by playing the game as a rogue.

[6.3] Ethnographic methods were also useful in my research since I was studying a relatively new social group. *World of Warcraft* had only been around for a year, and the player community around the game was in its infancy. The early months felt like a new frontier to me and the gamers I played with. Social norms and etiquette had not yet stabilized, and players were still figuring out the underlying mechanics of the game. In the early days, for example, meeting another character in a remote locale in

the game was sometimes awkward. We had not yet established the proper way to greet each other or even if we were supposed to greet each other. This was exacerbated by being on a role-play server where it seemed as if, in keeping with the fantasy of the game, one would definitely at least say hello to someone found in the middle of nowhere. Sometimes it seemed obvious that the other character was working on common quest objectives, but it was unclear whether we should group up to do them together. I tended to befriend those who were receptive to greetings and talk, which might have slowed down their leveling but showed that they were willing to be social.

[6.4] The practices we participated in were constantly changing, affected by new information about the game, new developments or patches to the game (tweaking the rules slightly or addressing balance and fairness issues), and new players constantly joining the player base. By being there as it was happening, I had a window into the change in people's perception of the game and its emergent culture.

[6.5] I remember, for example, when the game first launched, the fishing trade skill was quite profitable, providing players with the option to take a much-needed respite from just killing monsters without feeling like they were wasting their time. Some players discovered that fishing in more lucrative areas was not limited by character level. In other words, level 1 characters could raise their fishing skill high enough to fish for rarer and rarer fish, and more importantly, other items would be caught on the line that they could then sell for huge profits. The developers thought this could be used to break the game's economic system, which emphasized an increasing income stream based loosely on character level. Rather than using fishing to complement other in-game activities, players could bypass or trivialize the main game by fishing. This was made even worse by a rapidly developing real-money trading market for WoW. That is, some players were trading virtual items and gold for real U.S. dollars.

[6.6] Blizzard Entertainment decided to devalue fish and make catching nonfish items much rarer. They also implemented level-bound tiers to the fishing skill, forcing characters to level up if they wanted to continue raising it. What was once a fun pastime, something quickly becoming a cultural meme, turned overnight into a trivial waste of time. At one point, my friends and I had even considered a guild name based on fishing. Today, we're glad we didn't do it.

[6.7] When I finally joined raids, I was blindsided by certain patterns in the communication practices of the group. The Molten Core raid group, for example, included about 20 to 25 percent women, yet chat logs show their contribution to communication was much lower than that. Unfortunately, I do not have a good explanation for why this was happening since I am still working on analyzing the data. I hope to uncover some of the reasons behind unequal participation among all the

players by doing a more thorough re08:17:40 PM Sat, Mar 14 2009 of my logs. What is becoming clear is that the lives of players online are entwined with their off-line lives, which makes my lack of record of players in their off-line settings one of the major limitations of my existing research. I do not know the extent to which players might bring with them issues from their everyday lives into the game, so in future research I'll explore the intersection between online and off-line space, especially with regard to access and social marginalization.

[6.8] What I have done, though, is experience player practice and get an insight into the distributed nature of raiding and expert practice. By playing, I could experience unequal representation and barriers to access firsthand. As I mentioned earlier, it took me about a year of playing before I was able to join an endgame raid group. This was largely due to the game setup, requiring 40 players to band together and play at the same time, sometimes for up to 15 hours a week. Many players could not find groups that matched their schedules. This frustration with the high-end raiding requirements meant that many players decided to stop playing once they got to level 60. These players are not captured in surveys that draw on current players as their pool of participants.

[6.9] The ability to gain access to an expert group, in this case, a learning, ultimately successful raid group, required an expertise in players over and beyond an ability to understand the underlying game mechanics. Instead, players needed to be able to draw on the social and cultural expertise they had developed while participating in the leveling-up stage of the game. A sustained second stage was only available to those who had formed enough friendships and navigated the right social circles to have enough connections with other players who wanted to participate in the same endgame activities. These connections were formed and strengthened by players' ability to demonstrate expert practice of using external resources and an ability to be sociable or, at least, not antisocial. After joining a raid group, players needed to learn and participate in new activities that defined expertise, such as focusing on role-specific actions and using common third-party add-ons for threat management.

[6.10] Understanding the social nature of *World of Warcraft* through ethnographic methods is crucial for mapping out an accurate picture of expertise development within the game. Learning with digital games in this case meant learning *with people* in a game where the game itself served as a setting or backdrop for group work. Gaining access to expert player groups and learning from them, accruing social and cultural capital, and building one's social network affect a player's learning trajectory far more than simply grasping the game's mechanics. Expertise development within WoW, then, is tied inextricably to a player's ability to learn social skills.

7. Notes

1. See, for example, the archives of the Digital Games Researchers Association (DiGRA) conferences (<http://www.digra.org>), *gamestudies.org*, or *Games and Culture* (<http://gac.sagepub.com>).
2. At the time of this writing, characters can advance to level 70. Likely, by the time of publication, characters will be able to advance to level 80. More evidence of games as a moving target for research and writing...
3. I describe what a fight in Molten Core looked like in Chen (2009).
4. Many strategy guides for the various boss encounters in WoW can be found on the BossKillers collaborative Web site (<http://www.bosskillers.com>). This site did not exist when my group was in Molten Core, but though rarer and harder to find, similar write-ups were online at the time. The Pacifists Guild's guide to Ragnaros (<http://pacifistguild.org/ragnaros>), which no longer exists online but can still be found using the Wayback Machine at the Internet Archive (http://web.archive.org/web/20071213075344rn_1/pacifistguild.org/ragnaros), was the main one most raiding groups referenced for the last boss in Molten Core.
5. The term *farming* is used when certain monsters are killed over and over again for the loot they drop.

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Praxis

The friends that game together: A folkloric expansion of textual poaching to genre farming for socialization in tabletop role-playing games

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[0.1] *Abstract*—Tabletop role-playing games (RPGs) are a folkloric form for creating and reaffirming community bonds and performing identity. Gaming is used to communicate and perform cultural capital and identity through fictional narratives, functioning as a form of community building and/or personal expression. With quotations from ethnographic research over the course of 2 years, including interviews with several groups of gamers and participant observation, I examine the ways that players create and affirm social bonds. I return to Michel De Certeau's idea of textual poaching, as adapted by Henry Jenkins, to contrast with it a new concept of genre farming. As both platform for and object of genre farming, RPGs allow players to display cultural competence, create and reaffirm social ties, and seek entertainment in a collaborative fashion.

[0.2] *Keywords*—*Exalted*; Fans; Gaming; Participant observation; RPGs; Subculture

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1. Introduction: Terminology and stakes

[1.1] Tabletop role-playing games (RPGs) are a form of collaborative storytelling. Like any folkloric form, gaming allows for the creation and reaffirmation of social ties between individuals. I will show how the social and narrative process of role-playing allows gamers to perform their affinity with and knowledge of cultural properties and to create/reaffirm social bonds between players. Gaming is used to communicate and perform identity through fictional narratives, acting as a form of community building and/or personal expression in a collaborative and entertaining fashion.

[1.2] Tabletop role-playing is a meaning-making social activity that creates space for personal expression and affirms social bonds, including permutations of textual poaching à la Michel de Certeau (1984) and Henry Jenkins (1992). I focus on the White Wolf Publishing game *Exalted* (Alexander et al. 2006) as it was the game played

during much of my fieldwork, and I return to the idea of textual poaching to introduce the concept of *genre farming*. Genre farming emerges from the idea of textual poaching but covers different conceptual grounds regarding ownership and intertextuality. Whereas textual poaching pertains to illegal reworkings of copyrighted material, genre farming focuses on the recontextualization of tropes and motifs. I will be exploring genre farming primarily in terms of RPGs, where it allows for description and collaborative storytelling.

[1.3] Role-play gaming is a collaborative art form that emerges from the interplay of the players and game master/storyteller; it lends itself to people who are looking for a way to be creative in a group setting. Gaming provides explicit rules of conduct for behavior as the group creates their play rules and aesthetics consciously through their play. Friendships are made and maintained through role-playing games: gamers share their engagement with cultural materials, create group-specific argot, and create memories and narratives that demonstrate experiential ties between the group members.

2. Methodology

[2.1] My study combines participant observation methods with both game studies and fan studies. Ethnographic research has been used to examine RPGs before, but Gary Alan Fine's *Shared Fantasy: Role-Playing Games as Social Worlds* (1983) is terribly outdated, for all that it paved the way for later works. Although Daniel Mackay's *The Fantasy Role-Playing Game: A New Performing Art* (2001) provides a much more recent example of RPG studies, it is wholly grounded in and bounded by performance studies. I bring ideas from fan studies and folkloristics into contact with previous work on RPGs and role-players to discuss the intricate ways that gamers interact with the cultural properties of the games they play while they integrate ideas from other stories through textual poaching and what I call genre farming.

[2.2] My informant interviews were conducted in Eugene, Oregon, and Bloomington, Indiana, from 2006 to 2007. I worked with three groups for my research: a gaming group in Eugene, Oregon, which played *Exalted* at a game store in Eugene; another *Exalted* group in Bloomington; and other gamers who resided in Bloomington. My informants were almost exclusively white and were predominantly middle-class and college educated (ranging from undergraduates to holders of graduate degrees). All of the participants in the study were approached specifically on the basis of their participation in one or more role-playing groups; in the case of the Bloomington gamers, I had previously interacted with them through other games. All of the informants' names have been changed to preserve anonymity.

[2.3] I was granted access to the Eugene group after speaking with Kyle, the co-owner of a game store that sells role-playing games, card games, and miniatures games, rents Japanese anime, and sells accessories for related products. Kyle and his wife (the store's other owner) are young professionals devoted to creating a store atmosphere that is inviting and designed for playing games as well as selling them. Kyle had just begun running a game of White Wolf's *Exalted*, and after a discussion about my research, he allowed me to observe the game. The group played in an upstairs room of the game store that was specifically constructed to provide private space for gaming (RPGs and other types). Two long card tables were lined up end to end, with a half-dozen chairs arranged around them. The room is not spacious, and an angled ceiling comes to a point above the room's center. Both sides of the ceiling are decorated with murals done by Kyle's wife.

[2.4] I observed a half-dozen games of the Eugene campaign and interviewed the storyteller and five of his players during those weeks, discussing their opinions on gaming and the cultural/fan influences that they brought to their gaming experience. I also videotaped one session of the game and analyzed the tape to examine elements such as material culture, the position of players, and the embodied elements of play. The players had met through the game store and a previous RPG campaign where they had played *Dungeons & Dragons* (TSR, Wizards of the Coast, 1974–2009). Kyle invited the players from that game as well as a couple of those player's friends to join in his *Exalted* campaign. Thus, the participants had known each other to varying degrees before the game, but the campaign served as a way for them to strengthen those acquaintances and friendships. Games began in the early evening and did not continue past midnight. Players used the same characters from game to game as part of an ongoing narrative in which their characters were the protagonists of the narrative; Kyle offered structure and antagonism in his role as the storyteller.

[2.5] The Bloomington-based groups were drawn from the players of a live-action role-playing campaign of White Wolf's *Changeling: The Dreaming* (1995–2004) that had lasted 7 years. I interviewed players and storytellers from that game and assembled a group to run another case-study game of *Exalted* in Bloomington, which included one videotaped session. I interviewed the Bloomington-based gamers on similar topics over the course of several months but also used the long-running live-action game as a topic for unpacking or developing many lines of discussion that came up during the interviews. The Bloomington case-study game was a short-term campaign with five players. The game was played during the afternoon at the apartment of two of the players, usually on a weekly basis.

[2.6] Because I was a participant observer, it is impossible to speak of the *Exalted* games without also speaking of myself. I was physically present at the Eugene-based

games, occasionally interjecting my own comments in out-of-character discussions. I tried to make myself an unobtrusive presence so as to not to intrude on their game while still gaining the trust of the players; however, RPGs do not tend to have audience members who are not also performers/players. In the Bloomington case-study game, I was completely a part of the game as the storyteller, and my narrative and play biases were clear in that game. Because I was a participant of each of the gaming groups, my results are not only filtered through my voice, but they are influenced by my presence as well. I will speak further on the effects of my presence in the section on folk speech.

3. A short example of RPG play

[3.1] In most role-playing games, there are two types of participants. Most participants are *players*, responsible for portraying a single character in the narrative, describing that character's actions and interactions, and reacting to the events of the game. In *Exalted*, the other type of participant is known as a *storyteller*. The storyteller is a director, cowriter, and actor in one, portraying the secondary characters, describing the scenes, acting as a rules arbiter, and facilitating the players' interactions. The storyteller role is identical to that of a moderator or game master in other role-playing games.

[3.2] To provide a sense for the flow and feel of a tabletop game of *Exalted*, I provide the following hypothetical example with imaginary participants. Imagine this: it's 1 PM on a Sunday afternoon, and John answers the door at his home. Sandra, William, and Andrew are at the door, there for the weekly game of *Exalted*. They settle down at John's dinner table, spreading out game books, notebooks, bags of polyhedral dice (*Exalted* uses 10-sided dice, with the faces numbered from 1 to 10), and pencils and pens. William produces bags of pretzels, and John brings out a pan of brownies. The four discuss the week's episode of the TV series *Heroes* while they eat and socialize before they begin the game, catching up with people who are not only their collaborators in role-playing but also their friends.

[3.3] John passes out papers with character-specific notations (character sheets) to Sandra, William, and Andrew, the players in the game. Each of them looks over their character sheets and their notes, and they begin to chat about what happened at the end of the last game session, refreshing their memories as they get ready to play. Sandra talks about how her character, Verdant Jade, had just rescued Kai Nevar (William's character) and Little Bao (Andrew's character) from a tribe of wolf men ruled by an insane member of the shape-shifting Lunar Exalted. John opens his laptop and opens the word and image files for the game materials he has prepared for the game, acting as the game master for the campaign. John listens to their recap and

reminds them about the last moment of the previous game, when Silver Claw (the Lunar Exalted) burst through the door with a dozen beast men.

[3.4] The details of the narrative—not recorded anywhere but in the memories of the players—are repeated and clarified so that the game can pick up without any confusion as to where the characters were and what had happened. This recap functions in a similar way to the group's discussion of the show *Heroes*. The group repeats events of the narrative in conversation, focusing on moments that were confusing and elements of story, characterization, and/or themes so that as a group, they can refine their understanding of the story—both the television show and the story that the four of them are creating themselves.

[3.5] John, the storyteller, who is sitting at the head of the table with the three players seated next to him and down the table, calls for the players' attention and sets the scene.

[3.6] John says, "The three of you," being the characters in the narrative "are in the tent the tribesmen used to hold you. Silver Claw has a dozen wolf men with their spears pointed at you. What do you want to do?" John has addressed the players and set the scene for their characters, doing what is called *scene framing*. John provides a situation that demands action from the characters, then he solicits a response from the players.

[3.7] Sandra turns to Andrew and William and asks, "Should we take them, or get out of there?" Here, Sandra speaks as a player to Andrew and William, seeking a consensus among the players as to how to move the story—toward a fight scene or an escape/chase. John's framing did not necessitate a fight, only suggested one. The players have the room to shape the narrative through their response to the storyteller's scene framing.

[3.8] William says, "Kai is pissed. I'll get the wolf men real quick; you guys handle Silver Claw." The other players nod, and William turns to John and tells him, "We're fighting. I want to surprise the wolf men with a flying kick."

[3.9] John asks for an *initiative roll* because combat has been instigated. Each of the players rolls a set of 10-sided dice (the number of dice determined by their characters' abilities), and they count how many dice show a number higher than six (these are counted as *successes*). John also rolls initiative: one roll for Silver Claw, one roll for the group of wolf men. William's character has gotten the highest number of success, which allows him to act first.

[3.10] William declares an attack on one of the soldiers, and consults his character sheet for the appropriate number of dice to roll. William counts his successes and tells

John the count. John compares that total against the *defense value* of the soldiers (representing how difficult it is to hit them with an attack). John declares that Kai, William's character, has hit a wolf man with his flying kick and sent the beast man flying out of the tent. Meanwhile, Silver Claw has transformed into a 10-foot-tall wolf man battle form.

[3.11] Throughout the game, declaration and resolution follow in this pattern: one player (or John the storyteller) declares a character's action, using the game's rules to determine the result, then the storyteller describes the outcome (or asks the player to describe the outcome, giving him or her a chance to narrate) and calls for the next action. In scenes where action is time sensitive, moment to moment, such as in combat or chases, initiative is used. After the heroes defeat Silver Claw and escape the village, initiative is no longer needed, and the game master returns to the pattern of setting the scene and asking players for their actions, allowing the game to flow without needing as rigid a structure.

[3.12] The structure of the game adapts to the demands of the participants and the way they tell the story. The rules are a launching point for many gaming groups, and the players and storyteller can agree to diverge from the rules at any point. Although most groups establish at the beginning of a campaign what rules they will be modifying or omitting, an on-the-spot decision to bend or break rules is always an option, given that there is no outside governing authority on how games are to be played.

[3.13] Players speak for the actions of their characters and may describe the action in a number of possible ways (such as "Verdant Jade runs after the robber," "My character runs after the robber," or "I chase the robber"). The degree of closeness to their characters that players enact is not usually regulated and can shift from moment to moment. Participants are simultaneously actors embodying a character, players rolling dice and consulting character sheets, storytellers working with one another to craft a narrative, and people cracking jokes, eating food, and socializing.

[3.14] Players may decide what to have their characters do—or put another way, what to do as their characters—in a number of ways. Players can make an aesthetic choice, a decision based on what they think makes the best story ("If my character leaves her boyfriend at the inn to go fight the villain, I'll get more drama out of the relationship as I try to patch things up when I return. That sounds like a lot of fun, and it gets my character into the fight scene."). Or they can consider the internal logic of the character, a decision based on what they think the character would do ("Verdant Jade wouldn't leave her lover without an explanation. She'll walk him to the door and say that she will explain everything later, then run to the back to get her sword."). Or they may collaborate, a decision reached by group consensus ("We'll have Kai rush in

and tell her there's an emergency."). Or they may choose other ways of determining the character's action. Depending on the group consensus (including the storyteller's approval), players can rewrite actions that were declared or resolved earlier; the events that transpire are very flexible, as if everything were written in pencil, ready to be modified or edited.

4. *Exalted*: From textual poaching to genre farming

[4.1] *Exalted* explicitly draws inspiration from mythology, science fiction/fantasy, novels, Korean comics (*manwha*), Japanese cartoons (anime), and video games. These influences range from Greek mythology to Korean interpretations of Norse myth to internationally acclaimed Chinese adventure novels (*wuxia*) to seminal works in sword and sorcery fiction. *Exalted* is like *The Illiad* as if directed by John Woo, *Táin Bó Cúailnge* as if drawn by Yoshitaka Amano. With strong manga/anime influences (coinciding with an all-time high of American interest in those media), *Exalted* is mythic without being culturally specific. It is inspired equally by imperial China, classical Greece, mythic India, and other cultures, and it accommodates a wide range of play in a rich setting designed for adventure and intrigue. White Wolf Publishing's second edition of *Exalted* was released in 2006, revising the original version of the game that had been released in 2001. Thus, *Exalted* is a high-profile, recent RPG and therefore a useful subject to analyze as an alternative to the Fine (1983) and Mackay (2001) studies that are dominated by *Dungeons & Dragons*.

[4.2] Unlike in the most famous RPG, *Dungeons & Dragons*, where characters begin as amateurs with potential, a single starting character in *Exalted* can be a match for a small army. Starting characters are much closer to Conan the Cimmerian of Robert E. Howard's Conan novels than J. R. R. Tolkien's Bilbo Baggins from *The Hobbit*. The world contains many dangers more powerful than the players' characters, but the thematic paradigm of *Exalted* is "How will you change the world?" as opposed to "Can you change the world?" In the Eugene game, all players were depicting members of the Solar Exalted, who are divinely empowered by the world's sun god (called the Unconquered Sun) and charged with restoring the glory of a long-forgotten golden age. Solar Exalted are just one of the many types of powerful beings in the world of Creation, and they are pitted against darkly beautiful undead champions, amoral and incomprehensible alien faelike beings called *Raksha*, and more.

[4.3] In a game such as *Exalted*, I would refer to the recontextualizing process as one of genre farming. Players perform nonliteral recontextualizations of motifs, themes, and structures from games, films, television, and other cultural properties to enrich their game, prove their cultural knowledge, and cement social bonds through shared experience. Many gamers have grown up immersed in intertextually interlocked

narratives in the genres of science fiction, fantasy, and horror where tropes like giant robots, magical swords, and powerful prophecies are not owned by any one creator or specific to any one text. Each theme or motif is more akin to a type of seed or crop, which has been harvested year after year and continues to bear fruit for the players, drawing upon their previous experiences with these motifs/themes to serve as shared context. Whereas fan-fiction writers, the subject of much of Jenkins's discussions of textual poaching, use copyright-protected characters in new and often transformative ways, gamers as genre farmers create new characters who then interact with one another. In *Exalted*, the use of copyrighted characters established by the game books is explicitly allowed as a part of play.

[4.4] Given that the result of role-playing is discussed in terms of memories, experiences, and feelings, there is no artifact of play that can be spoken of as violating copyright. There is no crime in talking about the Star Wars character Luke Skywalker with your friends, nor would there be in telling a story where Luke duels with Robert E. Howard's Conan the Barbarian. And given that the characters in the *Exalted* games I observed were original and the purpose of play is the entertainment or intellectual nourishment of the players (to continue the farming metaphor), there is no worry of lawsuits or question of intellectual property. Recordings of role-playing games are uncommon and are even less commonly the primary purpose of play. Role-playing gaming is something done by gamers for one another and for themselves, their action and stories belong to themselves, with their own characters and their own interpretations of motifs, themes, and genre conventions.

[4.5] Genre farming allows gamers to collaboratively shape their play to one another's aesthetics, drawing upon shared motifs, themes, and conventions from established genres, utilizing the genre fields as a resource for a gamer's individual entertainment in a fashion that does not violate any copyright laws.

5. Identity and community

[5.1] In role-playing games, participants take on one or more fictional personas, performing for one another as simultaneous performers and audience, eliminating the performer/audience gap. Most gamers role-play without any formal acting training yet perform without difficulty or any reservations about their performance abilities. Among my informants, fewer than half had had any formal acting training though several had had other kinds of performance experience (such as choral, ballet, or band). The development of role-playing acting skill is a grassroots process that is done through observation and emulation.

[5.2] Role-playing is, above all, a hobby, with personal and group enjoyment at the heart of the player's objectives. When asked why he chooses to role-play, Kyle explained,

[5.3] Because it's fun...It's playing pretend. Too many people are too quick to grow up. I mean, everyone played pretend as a kid. And that's all this is. It's playing pretend without, you know, being afraid to say that you still play pretend. It's just entertaining, it engages the brain. It's fun to escape...same reason, it's entertaining. (Kyle, personal interview, May 29, 2006)

[5.4] Role-playing is, on a basic level, just a more sophisticated way to play make-believe; Victor, a video game designer from the Eugene group, says that it allows players to "re-create childhood experience of being someone who you aren't" (Victor, personal interview, May 29, 2006).

[5.5] In this performance context, players reveal aspects of themselves on several levels. Their choice of characters, play style, and sense of humor and maturity in out-of-game conversation; all of these are ways that participants perform their identities, and all are read by others. Many of the players stated that they play characters who are reflections of themselves or expressions of personal desires.

[5.6] I think everyone sort of plays aspects of themselves...I think people sort tend to play archetypes of themselves that they don't really get to express normally. Ah, for example, playing the hot-headed warrior type who figures they can make things right through the power of their ability to kick people's ass, obviously not something one gets to do in real life very often...I think that's why a lot of people are attracted to the idea of...rogue type characters, where they get to sort of engage this, like, semi-sociopath "oh I'm just going to steal stuff and do whatever I want and stab people in the back" kind of thing. It's obviously something that can't be expressed in real life if you want to be at all socially adjusted. (Victor, personal interview, May 29, 2006)

[5.7] College student Frank (also of the Eugene group) said, "It's fun to play characters who aren't like you" (Frank, personal interview, May 29, 2006). Following this logic, we can see gaming as a venue for exploring facets of personality that are taboo, for blowing off steam by sublimating, for living vicariously through fictional simulacra, as Frank once called RPG characters (Frank, personal interview, May 29, 2006), or for dealing with personal stress by portraying a powerful character capable of achieving victory in many different situations. Some players tend to draw explicitly on their own experiences and personalities for their characters, to ease their role-

playing. Wade (Eugene group), who works as both an artisan baker and video game designer, discussed this aspect.

[5.8] **Wade:** I don't know if [my characters are] specifically like me; they tend to be quiet or gruff, um, which I think is a slight failing on my part. Most of the time my characters are fairly quiet, fairly reserved. The play style of a Dwarven fighter isn't actually that dissimilar from a quiet magician. You're both just—hang back and offer their advice as needed. Which is kind of how I like to play. I like to be social, but I don't like to take things over.

[5.9] **[Author]:** Do you find that that's similar to the way you, you interact in social groups, yourself?

[5.10] **Wade:** A lot of the time...it depends a lot. Because you know, there's sub-sets within a social group. And you know, in some situations I'm more of—yeah, but I'd say I probably play pretty similar to myself, on deeper thought. (Wade, personal interview, May 29, 2006)

[5.11] Sometimes it seems the degree of closeness between a character's personality and that of its player is unknown even to the player, until he or she is pressed.

[5.12] However, characters are far from the only way that players make themselves known in role-playing. Just the act of playing, as a social activity, exposes a great deal about a person, as Kyle said:

[5.13] In a single session you can tell a lot about somebody. If you haven't been friends with somebody, and in a single session you can really tell a lot whether or not you want to be friends with them, based on just kind of how they are." (Kyle, personal interview, May 29, 2006)

[5.14] Most of the players knew each other before this game and before the *Dungeons & Dragons* game that had preceded it, but playing RPGs together led them to interact outside of the game. Gaming served as a kind of gateway or introductory mode of interaction that fostered friendships, which were frequently reaffirmed by playing. George, an anime fan, game designer, and frequent storyteller from the Eugene group, had this to say:

[5.15] The best way to stay friends with someone is to see them. At least in person, probably once every month. Less than that depending on the stability of the person. And so, with games that's continuous, you're always going to see the person. Even if you're not talking about anything, you're still seeing the person. And that's what it takes, as far as I'm concerned. (George, personal interview, May 30, 2006)

[5.16] The *Exalted* game is therefore a place where the participants continually reconstitute their friendship. For example, English literature doctoral candidate and Bloomington gamer Richard gave this account of gaming's social possibilities:

[5.17] I think that also, [gaming has a] tremendous social function. That's my sort of theory-esque kind of utopian idea about what I think gaming does. But probably on a more practical level, I think that on the ground, it mostly fulfills a social function, in terms people [have] in common, giving people something to do together. And you don't get that from movies. Yeah, you can go to a movie together. When you come out of a movie, you've seen something and you can talk about that experience, but it's different than having done something together. And that's what I think people get from role-playing. And there's really powerful social bonds I think that are created through role-playing. People who are my friends that I've gamed with, a lot of friends that I'll have through the rest of my life. (Richard, personal interview, September 6, 2006)

[5.18] Buttercup, a librarian/seamstress with a collection of cats, said, "Families are built on stories. Then role-playing lets you build surrogate families" (Buttercup, personal interview, August 3, 2006). The social aspect of role-playing was brought up by many of my players, whose friendships with their fellow players extended and often predated their time spent role-playing together. This is very different than the startling lack of out-of game sociability found by Gary Alan Fine in his research (1983). According to *The Fantasy Role-Playing Game*, Mackay's research participants (which included Mackay himself) were all friends outside of the gaming group—gaming was just the primary way they stayed in touch. In my experience, many if not most gaming groups are formed out of already existing social groupings. New players may find their way into groups without previous ties to the other players, but those individuals will often be incorporated into the friend group.

[5.19] Bloomington-based system administrator Andrew (a devout anime fan and video gamer, who briefly worked at a game store between jobs in information technology) came down strongly on the side of playing with friends.

[5.20] Being a part of a gaming experience where everyone is friends and trusts each other, and are friends first and playing a game second is extremely powerful in its ability to remove all of the normal roadblocks, and barriers and problems and hiccups that can come along in a gaming group comprised of people who aren't primarily friends, where the sole purpose is gaming. (Andrew, personal interview, September 10, 2006)

[5.21] For Andrew, the play experience is enhanced by having those already established bonds and shared memories/references between players, so the gaming is not a precursor to friendship but part of the friendship itself, one of many social activities shared by friends, one that is creative, social, and draws upon common interests.

6. Folk speech and group identity—Strike!

[6.1] One way of expressing solidarity within the Eugene *Exalted* group came via an item of folk speech. I discovered and identified the tradition of giving "strikes" to players, and players having a certain number of strikes left. I was not present for the first instance of strikes, so I will rely on the narration from Thomas, the Eugene group's designated class clown:

[6.2] That was an example of the collaborative thing, where I hadn't heard the thing before, and neither had the rest of the party, but Wade worded it in such a way that it was really funny. I told a horrible pun, which I don't remember what it was. And Wade said, "Thomas?" and he held up two fingers, and he's like "You've got two strikes left, and then you get stabbed." Or something like that, and later, I made some other horrible joke, and he was like "One strike left..." (Thomas, personal interview, May 29, 2006)

[6.3] Of course, it is clear that at no point was the actual threat of physical violence part of the equation; stabbing was the stand-in for the censure of the group. When asked about the strikes, Wade said,

[6.4] We play pretty casual, like I said. There are certain folks in the social group who are known for making lots and lots of off-color comments. And none of us really mind, but it's fun to "punish" them, quotation marks. You know, just kind of let them know they're getting a little further afield than maybe you want to go, while still letting them know, that *is* kind of funny. (Wade, personal interview, May 29, 2006)

[6.5] Thus, following Wade's description, the issuing or removal of strikes was an informal way for players to police the boundaries of out-of-game talk while allowing for recognition and appreciation of humor. As a joke tradition, it serves several functions simultaneously, as "clique talk" (in George's words), as a way of reaffirming the connections between the players by referring to in-jokes, as a way of reminding players to stay on task, and as a venue for illustrating the differences between the personality types of the players. In the fourth game I observed, the idea of strikes came back and recurred several times during the session.

[6.6] I must acknowledge the strong possibility that my inquiring about strikes during interviews in the previous week may have affected the process of taking strikes from a one-time joke to a recurring folkloric tradition of the group; however, prompted or not, strikes became clique-talk from one game to another. The subject of strikes resurfaced as one player made an off-color joke, which led the players to discuss what was necessary for each participant to earn a strike. Kyle stated that strikes were dependent on each person—players who were notorious for more outrageous comments had to say more outrageous things to earn strikes than other players. Talking about strikes was and is a way for the players to have meta-discussion about the ways that they joke and interact during their role-playing.

7. The yield of farming: Recontextualization and (sub)cultural capital

[7.1] Now that I've talked about the ways that gamers socialize through gaming, I'd like to return to the idea of genre farming. Genre farming in gaming varies among several different types, a display of personal agency and individual creativity that extends past Jenkins's application of the textual poaching to fan fiction writing. As role-players reach intertextually across genres, they rework narratives and create new worlds out of old ideas.

[7.2] The *Exalted* game I observed was not just an amalgam of several pieces of fantasy literature as if it were fan fiction—it delved deeper than the specific texts to the broader cultural context that creates and encompasses them. In interviews, for example, I learned that Victor had specifically designed his *Exalted* character to draw upon the Young Hero archetype, wanting to create and experience his own version of that arc, where a naive but talented youth has to grow up, make tough decisions, and attempt to keep his ideals while coming into his own as a warrior. Rather than just excorporating the characters and plots of a work, gamers excorporate and rework entire genres and archetypes (such as the Mad Scientist à la Dr. Frankenstein or the Young Hero à la Luke Skywalker), and they put their personal spin on these genre conventions and artifacts, negotiating and reworking the elements in a collaborative creative expression.

[7.3] The Star Wars RPGs allow players to tell new stories in the world of George Lucas's Star Wars series, but if a group of gamers has played in the world of Star Wars for almost 20 years, are they less "owners" of the stories they tell just because it started as someone else's intellectual property? Does original authorship or being a paid professional dictate the only form of legitimacy in the world of entertainment? Michel de Certeau sees textual poachers as nomads with no claim to the fields where they take prey—instead they roam the worlds of the texts and take what they want.

Some games do follow this model, where the players have no legal claim to the world of the narrative.

[7.4] In most RPGs, however, gamers don't poach texts directly. Instead, they lay claim to genres and stake their claim on those lands, developing their own crops/ideas for personal nourishment/entertainment. Instead of being nomads, they are permanent residents of these genres who cultivate the land themselves. They may be considered sharecroppers by the media moguls, but the land of these genres can be—in terms of identity—more naturally and authentically home to those who live aesthetically off the land than those who mass-produce from it.

[7.5] Many gamers surround themselves in these genre fields, subsisting in their fantasy life off a collection of fantasy narratives that ranges from superhero comics to science fiction movies and console video games. From old media and new, gamers take tropes, characters, settings, and ideas, put their own spin on them, and collaborate with one another to recapture the wonder they've felt before as consumers of stories. They become artistic subsistence farmers, making the aesthetic objects that they consume themselves, and their direct hand is in the process at every level, sharing the labor and the results with their fellow players. They take pleasure both from the process and from the eventual product. Like a family who cooks as a group, singing as they chop vegetables and telling jokes while a cake is baking, every part of the process is aestheticized, draws upon cultural traditions, and provides the meaning-making context for the purported reason for being together. It's the same with gaming: gathering for playing role-playing games provides the space and time for all of these social discourses that flow in and out of the creative performative event itself.

[7.6] Gamers do not necessarily expropriate as a form of active resistance to the author-ownership model of intellectual property; they do so as a way to claim agency over their own entertainment, to take the reins of cultural producer and author of the narrative, and to have immediate feedback from their collaborators/audience. Several of the players in the *Exalted* game, when acting as storytellers, created or utilized settings they had created themselves, drawing upon other media sources to farm their own worlds. These players are taking materials from their background in different genres, coming from commodified television shows, books, movies, and more. But in assembling a role-playing game world of their own, which is never intended to be used as a commercial venture but instead as a personal and small-group setting for collaborative storytelling, they have stepped outside of the mass culture consumer system without leaving behind the experiences that they gained from that system's products.

[7.7] Both George and Wade professed a preference for using their own settings in some role-playing contexts, showing the high level of engagement with the

textual/media corpus of the genres that role-playing games draw from. George created and runs games in a fantasy world called Midoria (inspired by his love of anime), and Wade's near-future worlds draw inspiration from anime such as *Ghost in the Shell* and *Robotech*. More than just writing fanfic in an already established universe or even creating original characters and stories within an already established setting like *Exalted*, gamers will go so far as to craft entire worlds—in the tradition of J. R. R. Tolkien—where loyalty to ideas of canon is irrelevant and the participants have total control over the subject matter.

[7.8] Just as Tolkien turned to mythology and cultural recontextualizations of those myths (Wagner's *Ring* cycle, for example), writers and gamers today take in cultural ideas and narratives, personalize and rework them, and share them with their friends. This process of recontextualizing is an important part of being a gamer. In creating worlds out of genre materials, participants draw points of commonality based on shared subcultural capital—a concept that Sarah Thorton adapts from Pierre Bordieu's cultural capital (Thorton 1997:202). Making a world that displays knowledge of the genre and its texts gives status to the creator. And for players of gamer-created worlds, identifying those textual influences and making their own references and recontextualizations provides subcultural capital within the gaming group, based on displays of knowledge/understanding of interests shared by members of the group. In role-playing games, the clever use of a reference to another RPG, film, comic, or video game is rewarded with smiles of recognition and laughter. Players remind one another of the things they have in common as well as using shared context as shorthand when explaining their actions or describing a character. Players' regard for one another is partially based on awards and recognition of (sub)cultural capital.

[7.9] For example, in the Eugene game, Victor is an artist, and provides character sketches for the player characters and various nonplayer characters. His contribution to the group in providing visual aids was recognized by the group, who have an extra focus for their creative imaginings of the characters through internalizing the character sketches. (Sub)cultural capital involves references to shared interests but also contributions to the group such as providing food, using outside skills (like drawing) to provide game aids, and any number of other things. The game and the friendships it supports are carried out through small social transactions such as this, as the group continues to build their social connections. In my fieldwork, I also saw in-game rewards given for these kinds of extra efforts, with additional points (to be spent on improving the character) awarded for such contributions as providing food, writing fiction about their characters, or creating game art. In these cases, the (sub)cultural capital is implicit in the appreciation from players but also explicit in the points granted for the player's characters.

[7.10] Role-playing lets players create characters within a generic framework such as superheroes, science fiction, or fantasy and perform their affiliation with those genres by embodying and identifying with a character. Playing RPGs can grant new perspectives and help players become better at socializing. As Thomas said, "If you know about somebody's circumstances, and you can put yourself in their headspace, or at least try and get an understanding, it helps you just interact and understand people a lot better in the real world" (Thomas, personal interview, May 29, 2006).

[7.11] Victor and Edith Turner describe rituals as occurring in spaces outside of normal life, places in between that are *liminal*, where people come together to create social bonds independent of other hierarchical relationships, which allow them all to share in *communitas*, the energy created in the ritual moment and shared equally by the participants (Turner and Turner 1982:202–3, 205). By collaboratively imagining another space, one in between all of the players but shared by all of them—a *liminal* ephemeral space that can be summoned up again and again but is always as fleeting as speech—gamers not only can connect with one another by creating and experiencing *communitas*, but they also can take the perspectives they gain through story-making play and come back to their "normal" lives refreshed, entertained, and educated. Players get out of their own headspaces through the liminal space of the fiction created by their play, where they can empathize and think within the mental framework of other characters—and therefore with other people.

[7.12] Etienne Decroux, actor and pioneer of the corporeal mime style of performance, wrote, "Art is first of all a complaint. One who is happy with things as they are has no business being on the stage" (Decroux in Sklar 2002:131). Victor and other gamers posit that, because the world we live in is sometimes mundane or oppressive, we (gamers and others alike) turn to our imaginations to dream up a better world, be it more exciting, more egalitarian, or something else. One of the results of the collaborative community created by gaming is the ability to imagine these better worlds, to create intellectual sandboxes to explore ideas and possibilities. By creating a fantasy world for our entertainment, we are implicitly stating that the world as it is is not enough, that our real lives are missing something, that we yearn for something more. The liminal space of gaming allows gamers create art in the medium of role-playing games; and rather than waiting for that something more to be delivered—to be advertised to them so that they can consume it and feel fulfilled—gamers take elements of their favorite genres and make their own fulfillment.

8. Conclusion

[8.1] Gaming occupies a marginal but important part of culture in America and other places. It is an example of a form of creative recontextualization I call genre farming,

which extends far beyond de Certeau and even Jenkins's versions of textual poaching. It is also an inherently social activity that allows participants to play together, crack jokes, and reaffirm the friendships and commonalities in their groups by displaying competence in acting and showing familiarity with science fiction archetypes and motifs. Personal aesthetics become group aesthetics, and fellow players become friends who may continue their relationships long after the ending of an individual game.

[8.2] Gamers reveal themselves through their play, making statements about their personalities, beliefs, and tastes by stepping outside of their normal lives and exposing themselves to one another through the safe space of private performance. Gaming allows players to create community in a *liminal* time-space where they are both themselves and not-themselves; they explore types of difference and recontextualize motifs, themes, characters, and structures from shared cultural references for entertainment and socialization.

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Praxis

"Once more a kingly quest": Fan games and the classic adventure genre

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[0.1] *Abstract*—The classic adventure games—part of the earliest traditions of interactive narrative—have not disappeared, although they no longer occupy space on the shelves at the local computer store. Even as changing hardware and operating systems render these games of the 1980s and 1990s literally unplayable without emulating the computer systems of the past, fans are keeping these stories alive. Authorship of these games has changed hands: it is now under the control of the fans, the former and current players. Through the online sharing of fan-created game design tool sets and of the fan-created games themselves, these new coauthors create a haven to revisit these decades-old games using fresh eyes and fresh systems. The products of these folk art–reminiscent efforts also offer a venue to reconsider video game fandom in light of genres. They also allow us to understand these "personal games," productions of one or more people that are not intended for commercial sale, as carrying the heritage of the classic era forward into the next generation of gaming.

[0.2] *Keywords*—Adventure game; Authorship; Computer game; Fan fiction; Personal game; Lucas Arts; Sierra

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1. Introduction

[1.1] In 1997, Espen Aarseth argued for the expanded study of adventure games—a computer game genre devoted to narrative experience—not as a bastardization of a literary form but as a literary form in itself: "The adventure game is an artistic genre of its own, a unique aesthetic field of possibilities, which must be judged on its own terms" (Aarseth 1997:107). He noted the roots of the genre as perhaps more in folk art than in commercial art: the story of the first adventure game "is a paradigm of collaborative authorship on the Net: one person gets an idea, writes a program, releases it (with the source code); somewhere else another person picks it up, improves it, adds new ideas, and rereleases it" (1997:99). This allows for the classification of this first adventure game, at least, as folk art created by authors building a narrative tradition through repurposing and expanding the text (1997:100). But even as Aarseth was writing, the origin of collaborative authorship had been superseded by commercial work—the dominant mind-set was no longer open source. As the adventure game form diminished commercially, many decried it as dead, but *King's Quest* designer Roberta Williams responded to the charge: "If you go back and look at where adventure games were and where they went, you can see that the adventure game is still there, it's just a different/better (depending on your particular point of view) experience playing them. The adventure game 'as we know it' just keeps evolving. It's still evolving"

(White 2006). Today the commercial form of the adventure game little resembles the classic games of the era when Lucas Arts and Sierra were dominant, but the folk art tradition of the earlier form is also evolving separately in the hands of the fans.

[1.2] Just as the adventure game is being continually redefined and repurposed in the commercial arena, there are still authors continuing in this tradition of the game as folk art. These authors work in a manner that is collaborative and yet personal, in the tradition of adventure itself: they build games and tools, share those processes and their code, and expand upon the games and tools made within the community and outside in commercial projects. These authors are not merely continuing the tradition of the original games but are also adding their own ideas. The works of this tradition are what I call *personal games*—games created not by so-called independent or corporate collectives, but by individuals working within a collective to evolve this style of interactive narrative in their own images. Both the direct sequels and the reimaginations of classic-era commercial adventure games as well as the original storytelling of the personal game author can be better understood through the light of fan studies, as these games celebrate a very particular heritage of form and narrative best understood as an evolving digital folk art. The tools and products of this movement both replicate and expand upon the forms of the classic games of the 1980s and 1990s, when the genre was one of the dominant forms. The digital tradition of collaborative authorship is being extended by the community of personal game makers, who are building upon a tradition of the adventure game as folk art and narrative expression—some make deliberate references to other games and themes, and most adhere to or respond to the fundamental practices set down by the classic era.

2. Growing up in the classic era

[2.1] My generation was the first to grow up with video games as part of the stories that offered us a window into the transition to adulthood. The new form was immediately viewed with suspicion by those experienced enough to know better: we didn't know we were engaged in the formation of ourselves, we just thought we were shooting at demons. The shift to a world where it is possible to have the immersive experience of play in a fully realized interactive environment seemed to happen overnight, and the immediacy of the transition meant that those outside the virtual playground were not so ready to accept it into the cultural text as those born with the new toys. The battleground over gaming became a battle for identity. As an opportunity for the broadening of self, games did not begin in a promising fashion. They lacked both the imagery and immediacy of television and film and the depth of narrative of a book. Most of the games available in the early graphical form still didn't offer much of the details or imagery we've come to expect from modern games. Yet Marie-Laure Ryan describes how the games compensated for these elements by advertising an immersive experience: "Even in the 1980s, when computing power allowed only rudimentary graphics, developers promoted their products by promising a narrative experience that rivaled in its sensory richness the offerings of action movies" (Ryan 2006:182). The games born out of this focus on a narrative experience were called *adventure games*, games dedicated to telling a particular story around an embodied character. The addition of narrative to games built up

quickly through the years, particularly once Nintendo begin to redefine the initial collections of pixels not as simple targets but as characters participating in battles of good and evil. The games offered the basic shapes and the virtual playground; we players provided the imagination to fill in the gaps. Actions taken by the players are necessary for the story to be fulfilled. Without a player, there is no story; the self is invested as part of the experience.

[2.2] Playing an adventure game is an experience of a narrative driven by someone else's rules. A player must accept and interact with the game environment to advance the designer's narrative, and the designer's intentions govern the possible story arcs. This creates an almost circular process of dependent meaning, where to understand any individual idea one must already understand the context in which that idea fits: a player in an adventure game is adapting to the imaginative structure of play. The more unfamiliar the ideas, the harder it is to gain understanding. Someone who encounters a game for the first time may have the same experience as someone encountering a fantasy story for the first time. Some of the dictionary definitions might already be familiar—for instance, the reader might have heard of dragons or wizards before—but that alone will not enable the reader to make sense of the nuances that experienced *Dungeons & Dragons* players see. An experienced reader of the genre gains satisfaction in seeing the rules and expectations of the genre both met and broken. Such a reader can process the idea of a particular depiction of unity among "good" and "evil" wizards for the sake of magic alone as a breaking of traditional expectations of good versus evil and can understand the writers' point about the importance of putting the preservation of knowledge above such conflict. An unfamiliar reader might look at the same words but see a very different picture, as they create backgrounds and learn from the narrative. The experiences the player brings to the game shape the story as it unfolds before them: no player, familiar or unfamiliar, is a passive vehicle for the author's narrative. The game author creates the boundaries for the story, but the player fleshes them out and brings them to life; code is stagnant without play.

[2.3] The earliest adventure games relied upon a system of bait and reward: the author set out the tasks, the player fulfilled them, and the author rewarded or punished the actions. The author's system of rewards did not necessarily make sense, nor have much correlation with reality. Success in the system required an understanding of what the author saw as necessary steps and solutions when designing the game. For instance, at the beginning of *King's Quest I*, the player is given three tasks to complete by an aging king. After receiving the quest to find three items, the player is set loose in a world where the simple decision to walk into the moat can lead to a quick death by a hungry moat monster. The player must master obscure rules and author decisions and overcome the author's barriers to help the knight he or she controls become king of the realm. Upon completion of the quests, the player is rewarded because the character is rewarded: the player learns that by problem solving, he or she can advance to victory. The player's investment in the game means the game does not need the same depth of narrative as we expect from a work of fiction, canonical or not: "A game does not need to tell stories that would provide suitable literary material to immerse the player in the fate of its fictional world, because the thrill of being in a world, of acting in it and of controlling its history, makes up for the intellectual challenge, the subtlety of plot, and the complexity of characterization that the best of literature has to offer" (Ryan 2006:195). Taking Ryan's

concept further, the character and story do not need to be presented to the player because the player is holding several pieces of the puzzle. Adventure games are written to remove power from the author's hand. If a kingdom is to have multiple fates, the interactive narrative needs the player to control those outcomes, and those outcomes don't need to be developed to a level of narrative complexity—the player's actions provide that element.

[2.4] The thrill is the interactivity: the feeling that I as a player can shape the fate of the world. It doesn't matter that the story of *King's Quest* is incredibly contrived. A knight rescuing a kingdom, and later in the series becoming a king, then rescuing a princess...these are the archetypes of stories that don't require the player to engage in deep literary analysis. The connection I have with Sir Graham, *King's Quest*'s knight errant, isn't because of his great depth of character: it's because of the melding of our characters and quests, trying out a different perspective and seeing the world through another's eyes. The games I played as a child have a particular hold on my mind because that was when I was just learning to stretch my mind in those directions: I remember the characters that were part of that initial experience of the other, someone beyond my initial realm of experiences. Playing a fully narrative game, ideally the player is not aware that the control is an illusion. The adventure games of my youth represented the most purely narrative form of game, a style that is occasionally decried as a dead genre despite the continual fascination with narrative games. I came to know the characters of these adventure games in a different sense than I know the characters of Shakespeare. I read about the escapades of the lovers caught in a magical forest, I imagined myself in their places; I became aware of new possibilities and ideas for love and fantasy. But Guybrush Threepwood, Indiana Jones, Sir Graham—those are characters whose lives I've played. The narratives of these characters may not offer the same depth as Shakespeare, but the experience of play allows for actually testing the possibilities and limitations the characters represent.

[2.5] While the adventure game as a commercial entity has moved away from its original roots, a thriving movement of independent game design keeps the traditional model of games about quirky heroes and strange stories alive. The 2004 personal game release *Cirque de Zale*, entirely designed by adventure game enthusiast Rebecca Clements, charmingly reverses the expectations of the genre: the main character, Zale, is pulled through a mystical portal to a fantasy land and offered the chance to rescue a princess and win the kingdom. Instead, he sensibly decides to settle down and start his own circus instead, and no amount of effort on the player's part can even save the princess—she's locked up and someone's thrown away the key. Players of the old *King's Quest* games who remember playing the hero and rescuing kingdom and princess have flocked to Zale's quest, and the designer describes her intention to evoke the tradition of Lucas Arts adventures: "I wanted people to get a real sense of nostalgia as they played it, which is exactly the kind of game I'd love to play" (Manos 2004). The Adventure Game Studio community, of which Rebecca Clements is a member, notes that as of March 2004, "The actual average age on the forums at present is 22 years old. There is, of course, a reason for the majority age group being young adults—people that are aged about 20 now would have played games like *Monkey Island* and *King's Quest* when they were children, and are now old enough to want to recreate the games" (Adventure Game Studio, n.d.) This self-description acknowledges the impact the classic games have had and continue

to have on Adventure Game Studio productions, which are themselves created with an interface designed to allow others to expand upon the tradition. The type of production Rebecca engages in is still fan production, drawing upon the adventure game tradition and making specific reference to classics. It is furthermore designed to have a large appeal to fans of the original productions. Although it is not as obviously a work of fan production as the direct sequels I will examine more closely, it is characteristic of the folk art tradition of the personal game movement. None of these games can be considered separately from the classic heritage that guides the authors, the tools, and the community.

3. Revisiting the classic era

[3.1] Many of those adventure games listed by creators within the community as influences lie abandoned by their original creators and publishers. A fan cannot walk into a gaming store and find even a trace of most classic games beyond the occasional halfhearted release of a legacy collection. Both of the most oft-cited titans of the classic adventure game industry make the occasional nods to the fans of these games: Sierra recently released a collection of *King's Quest* games, while Lucas Arts last released a "classics collection" years ago. These collections are nothing more than a careless repackaging of the original: the *King's Quest* collection even includes the free software that allows the old game to work on a new system, but some configuration and fuss is still necessary and actual compliance of graphics and sound is far from guaranteed. Sierra did not make the effort to restructure the games for modern systems: instead they relied upon a program that emulates the operating system, a program that was standard when the classic era of adventure games was at its height. The program, Dos Box, as shown below, can allow games that relied on the old Soundblaster cards and limited memory to adapt to newer systems that would otherwise render such games unplayable (figure 1).

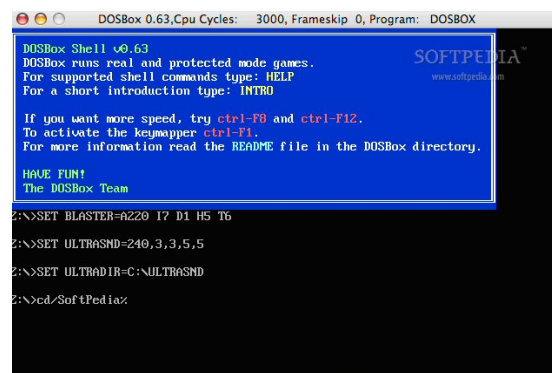


Figure 1. The DosBox command prompt interface.

[3.2] Playing old games on today's computers becomes a quest in itself: not only have advances in hardware led to incompatibility, but the games themselves are hard to acquire. Some gamers preserved the original floppy disks in collections, but floppy drives are no longer a standard component. Disintegration of old game materials has led to their virtual preservation: manuals are scanned, graphic novel introductions converted to digital forms, and so forth. Games themselves persist through similar illegal online distribution. As games persist under the bindings of copyright while the companies who created them have moved on

to different systems, fans are taking ownership of these titles. These games retain an appeal and audience even in an era of gaming that has left two-dimensional environments behind in favor of increased graphical realism and elaborate gaming engines. Fans cite the failure of modern games to capture the old spirit of humor and story-driven play, and thus it is a common lament that adventure gaming in the classic sense is dead. Even the archives keeping the classic games available are often shut down for legal concerns: copyright law keeps the games under protection even though the commercial sale has disappeared. Unlike books, games rarely go back into print for a new run except in the occasional archive collection, in part because the genre of computer games is very forward-looking—there is always new technology on the horizon.

4. Assuming authorship

[4.1] Copyright law has proved to be no barrier preventing the fans from taking ownership of these games for recreation and expansion. Their efforts are distinguished from the more accepted practices of *modders*, or players who build new levels and content for games, by their intentions and product. Modders build on the original game, melding their efforts with those of the original developers and extending the content in a way that is of benefit to the original copyright holder: "multiplayer FPS [first-person-shooter] games are 'co-creative media'; neither developers nor player-creators can be solely responsible for production of the final assemblage regarded as 'the game,' it requires the input of both" (Morris 2003:8). The player-creators that Morris describes are active creators of new content in the same way as the authors of the adventure game community, but the first-person-shooter games in question have embraced the practice. The developers rely upon this created content to continue to expand playability options within their game and are secure in the knowledge that these mods are unplayable without ownership of the original copyrighted games. Fan creators of the classic adventure game movement can also be identified as cocreators, as they are in dialogue with the work of the original developers. The crucial distinction between fan authors in the adventure game community and modders in the first-person-shooter community is that the fan authors are not endorsed by those developers. Fan authorship co-opts material from the existing games without requiring the game itself. A game authored by a fan stands on its own and is playable as a complete structure. It is informed by the original, and may even be an exacting remake of the original, but it is developed separately. While the work of modders is tied to the original game by a web of interdependence, the games created by fan authors can even go so far as to replace the original game and render ownership of it irrelevant. The work of personal game creators, a subset of the fan authors, is less problematic in that such works tend to owe considerations of form or concept to the classics but not actual copyrightable characters, settings, or narratives.

[4.2] These fan authors use tools developed and distributed through online communities and made freely available for the purposes of creating and expanding the mechanics of the classic-era adventure games. These mechanics are based upon the subset of games most often revisited by fan authors: the Sierra and Lucas Arts games of the 1980s and 1990s. When these classic adventure games were created, game engines needed to be planned from

scratch. Much was learned and derived from the text-based interactive fiction games that preceded graphical adventure games, but the ability to model an interactive graphical environment was then new. The focus on environment interaction required designers to take the traditional verbs of text interactions—push, pull, open, take, talk to, and so forth—and revise them to create avatar-based play. In 1987, Lucasfilm Games—which would soon be renamed Lucas Arts—released an animated adventure game titled *Maniac Mansion*, the first to use a gaming engine Lucas Arts would refine for most of their adventure game releases. This gaming engine was titled SCUMM, or "Script Creation Utility for Maniac Mansion." Designed by Aric Wilmunder and Ron Gilbert, the SCUMM gaming engine allows for the easy transfer of an adventure game to multiple platforms, meaning that the game could be played on the many different models of personal computers available at the time without as much difficulty in rewriting the code. The SCUMM interface has a unique characteristic: it places the traditional text-based verb commands for a game environment on a menu bar that takes up a third of the screen. This allows players to choose a verb such as "pick up" and enact that verb on an object from the game world, such as "pick up key." Thus, determining what actions are possible at any point in the game requires no guesswork. This engine was at the heart of many classic Lucas Arts games; the Sierra engine which developed in parallel offers similar properties.

[4.3] Decades later, creating a game that uses one of the classic systems relies upon what are essentially recreations of those classic engines. Some of the first players who wanted to create games along the lines of classic models developed tools for modeling with the traditional engines. Now many of these tools, which offer a graphical interface for adventure game development, are offered for free to other noncommercial game creators. The availability of these free tools creates a low barrier to entry for would-be creators: no real programming skill is required to make use of these systems. They are, like the games themselves, essentially point and click; even animating sprites is an easy task. Tools of this kind allow for fan production along the same lines as the revolution in fan filmmaking Jenkins previously chronicled: "Digital technologies have also enabled new forms of fan cultural production...fan filmmakers have used home computers to duplicate effects Lucasfilm had spent a fortune to achieve several decades earlier; many fan films create their own light saber or space battles" (2006:143–44). The online distribution of these tools is crucial to their influence. Would-be creators similarly moved by this particular style of game can easily locate both the tools and the specific tool sets inspired by interfaces of the era: even the most specific of interfaces are often available for easy reproduction, with fans posting tools for creating everything from the Lucas Arts SCUMM engine to the Gabriel Knight "talking heads" chat.

[4.4] Several different tools constructed by fans have been made available. Of these, the most popular is Adventure Game Studio, a tool for creating games in the classic Sierra style. The interface for Adventure Game Studio is shown below, here with the graphical interface overlay for managing dialogue options with nonplayer characters. The interface allows creators to manage all the standard elements of an adventure game without more than simple code (figure 2).

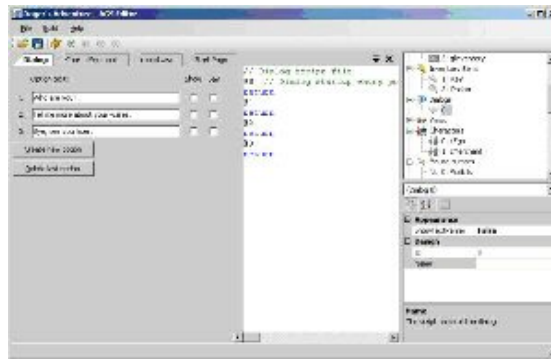


Figure 2. *The menu system of Adventure Game Studio.*

[4.5] Beyond providing a graphical interface for game production, Adventure Game Studio provides a community: would-be creators put their efforts online for their fellow enthusiasts to download and comment upon. The central hub of Adventure Game Studio is an active forum where authors find collaborators with different skill sets, seek out beta testers and advice on construction, and talk about games in general. Games with commercial intention are frowned upon in this setting. Creators are supposed to be motivated by pure love of the game, and perhaps by the desire to create a portfolio that will entice companies their way: the standards of this fan community dictate the importance of passion. Furthermore it is important to note that the creators of these games are often the players of other fans' titles: playing and creating these games is its own reward. In this, the fan authors have much in common with the modders of first-person shooters, whose work similarly rarely provides them with financial rewards even though they create content: "The precarious status of modding as a form of unpaid labour is veiled by the perception of modding as a leisure activity, or simply as an extension of play. This draws attention to the fact that in the entertainment industries, the relationship between work and play is changing, leading, as it were, to a hybrid form of 'playbour'" (Kücklich 2005). There is a purity ascribed to noncommercial intent that is itself illusory but appealing: the mystique of the fan author driven only by passion allows a purity of purpose to stand against the accusations of copyright infringement and intellectual property theft. In reality, there is also the promise of recognition from a community, as games created in this way can aspire to win awards given out by the community itself or to be reviewed by one of the Web sites devoted to the adventure game genre.

5. Fan remakes

[5.1] Devoted fans have made use of the available tools to reconstruct entire games, often with basic improvements to allow them to stand the test of time. These new versions are more playable than the old, as the games will run on more modern systems and can be made available through a simple downloadable executable. A number of classic games have undergone these fan treatments and been brought back to the attention of players new and old. Some are merely repackaged with enhanced graphics and interface; others are fully reworked, with fans trying to patch up holes in the original plot or provide music and voice acting where there was originally only static and text. Who is the true author of a fan remake? Certainly the original designer retains the credit for creating a world worth remastering. As for the fans, they are often hesitant to take any credit at all: the team responsible for many

Sierra remakes as Tierra simply calls themselves the Anonymous Game Developers, although they have made their names public and their projects are far from forgotten. Yet anonymity is not a protection, nor does the removal of a name remove the fan from the murky territory of shared authorship. The fan author is engaging in a one-way dialogue with the works of the previous creators: the fan is remaking the classic game, and the original creator is now silent beyond their original production. This is perhaps best understood as a practice that extends Aarseth's consideration of the adventure game genre as folk art, as referenced earlier: works are put into the communal tradition, and new works emerge that continue and expand upon that tradition (1997:100). Who is the ultimate author of the work? All the creators involved in the practice. There need be no notion of one auteur, of one author working alone to create a masterpiece.

[5.2] One of the first great adventure games, *Maniac Mansion*, languishes in the Lucas Arts vault. It was last released as a playable application on a computer within its own sequel, *Day of the Tentacle*. Even that version was riddled with bugs: launching the game often crashed the system if it was too far advanced in hardware. A German enthusiast, known online as LucasFan, put in hours converting the game to *Maniac Mansion Deluxe*. LucasFan's *Deluxe* is a freely available and improved version of the original *Maniac Mansion*. LucasFan created the game using Adventure Game Studio, the aforementioned fan tool for modeling games in the style of the classics. He inputted the old environments and modeled anew the avatars and characters. Unlike the old version, which was constructed for the DOS operating system, this new version is playable on a range of computers and has in effect archived the *Maniac Mansion* experience for gamers present and future. While the Sierra fan coauthors faced legal consequences, LucasFan even earned an endorsement from the game's creator—if not from its copyright holders: "I think it's incredible," said *Maniac Mansion* cocreator David Fox. "When we first released these games, we figured people would be interested for two or three years, max. The fact people still care enough to put this kind of work into the games, it's amazing" (Ogles 2004). David Fox can be credited with recognizing his own work as part of a tradition of folk art. He accepts and invites the extension of his creation: to him, the story of *Maniac Mansion* did not end when his creative team shut the final door and put it in a box to ship.



Figures 3 and 4. The fan-remade and original exterior of *Maniac Mansion*.

The two images here side by side (figures 3 and 4) show the improvements LucasFan made in his efforts. The image on the left is a screenshot from the new version, where LucasFan

incorporated the interface from *Maniac Mansion*'s sequel, *Day of the Tentacle*, and enhanced the graphics. He also included an easy interface for transitioning among the playable characters and enhanced the verb recognition. The image on the right is the original version: the spirit of the game is preserved while the quality is enhanced. The game now reaches the standard of design set by the Lucas Arts sequel, a quality that was not yet possible when *Maniac Mansion* was originally produced and the SCUMM engine that powers Lucas Arts classic games was only first developed.

[5.3] While fellow fans heaped their praises upon LucasFan's efforts, the copyright holders did not view it so kindly. In 2005, LucasFan made a dramatic disappearance from the Internet following rumors of a heated exchange between LucasFan and the attorneys responsible for Lucas Arts's cease-and-desist orders. At the time, LucasFan was rumored to be working on an *Indiana Jones* game in the spirit of the original *Indiana Jones and the Fate of Atlantis* adventure game, a project that might have brought him negative attention, given the status of the *Indiana Jones* license as still profitable for Lucas Arts. Details are difficult to confirm because the involved parties were mostly silent on the matter. The LucasFan Web site notes only, "Recent events have forced us to shut down our web appearance. We would like to thank all our fans and supporters who believed in us and our dreams" (LucasFan n.d.). The accompanying image recalls their *Maniac Mansion* remake with a tombstone set outside the famed mansion itself. The game, however, lives on, and the remake can still be downloaded through new sources that preserve the work. LucasFan as the author is unnecessary for the game's survival now that it is in the hands of a larger community (figure 5).

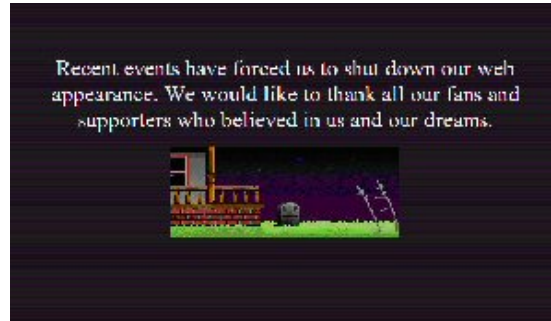


Figure 5. The final message from LucasFan.

[5.4] Sierra Games is at the center of even more active fan remastering. One team, Tierra (also known as Anonymous Game Developers), remade the first several games of *King's Quest*. The first remake, *King's Quest I*, was intended mainly to be a case of improved playability. The graphics were improved, the sound and dialogue increased, and the environments enhanced but generally unchanged from the spirit of the original game. This first remake was a testament to the possibilities of the efforts of the Tierra game and it paved the way for more dramatic undertakings. Released from 1984 to 1998, the games of the *King's Quest* series spanned over a decade and marked the most massive and successful series of adventure games. The later games were markedly different in technological sophistication and narrative advancement when compared to these early predecessors: even after Tierra's enhancements, the first game is dated by comparison. The most impressive aspect of the *King's Quest I* remake was the involvement of the original voice actor

responsible for Sir Graham's voice acting in IV and V. As the actor explained in an interview, he was pleased to reprise the role: "For one, doing voices is just plain fun, and I especially enjoy doing them for games. For another, I think that the VGA remake is a great tribute to the original *KQ* series. And, lastly, because I was extremely flattered that they asked me to participate" (Wells n.d.). The remake is thus even more in sync with the original games with this audio connection through a voice that players of the sequels were already attached to. This gives legitimacy to the project it would otherwise lack: having the original voice of Sir Graham is a far cry from taking the best volunteer from the fan community itself.

[5.5] Tierra's next project was to take a dated prequel and utterly reshape its character. The team thus followed their initial effort with a remake of *King's Quest II* that was far more ambitious, intending to fill in gaps in the original plotline, increase character backgrounds, and generally overhaul the entire experience. The result was a game very different from the original project, even featuring a full voice-over when the original version had no spoken dialogue, only text boxes. Below is an image showing the graphic quality of this remake contrasted with a screenshot from the original version of the game (figures 6 and 7):



Figures 6 and 7. The fan-remade and original shores of *King's Quest II*.

The enhancement in this case is stunning: the game cannot easily be dismissed as a repackaging and is a full remake. In Tierra's hands, *King's Quest II* becomes a different game from a later decade. Tierra made use of much of what Sierra provided in sequels for imagery and interface but updated the game in their own style.

[5.6] A game that acts as a sequel or re-visioning of a classic adventure game is more likely to be played than an amateur effort without that grounding, although both works are acts of fandom relative to the genre itself. As one commentator noted after observing the fan-constructed tales around *Star Trek*:

[5.7] These types of stories, despite their disparate sociological nature, all share the mystical, cosmological and pedagogical dimensions of the original series, providing us with a well-formed response to Campbell's wish for consistently modern myths: by transforming themselves from a passive audience into active contributors to the mythos, these poachers have been able to adapt their myth of choice, retaining its mystical, cosmological and pedagogical functions even given the rapidly changing sociological climate. (Guaraldi 1997)

[5.8] The idea of writing inspired by other stories that have already gained a place in popular mythology is by no means limited to the kind of fan fiction found in such pursuits on the Web; examples of the same concept abound and often achieve great success. One example of this trend is Gregory Maguire's *Wicked*, which takes the rather one-dimensional villainess from *The Wonderful Wizard of Oz* and grants her a full biography, from birth to death. The devices Maguire employs are those of fan authorship, taking a classic work and adding a personal vision—creating new romantic attachments, giving a favorite character new motivation and spark, incorporating influences from more recent political and social concerns. Would the work be as successful if it had not been a work of fan fiction but had instead featured an unknown witch of no particular narrative heritage? It is impossible to be certain, but one thing is clear: as a work of fan fiction, it has recently been morphed into a well-received Broadway musical, a distinction few novels, and certainly few works of fan authors, are awarded.

[5.9] Many fan sequels follow similar lines of the fan remakes but with a new story. The Lucas Arts game *Zak McKracken and the Alien Mindbenders* has been repeatedly extended—LucasFan's first project was an extension of that game titled *The New Adventures of Zak McKracken*, pictured below (figure 8):



Figure 8. LucasFan's continued adventures of Zak McKracken.

[5.10] The game picked up where the first left off but showed its roots as an amateur effort: the puzzles and narrative were not yet fully developed. A range of other independent projects exist, some complete and some not, that have similar ambitions of extending the story. The *King's Quest* series also has a wealth of small projects surrounding it. Among them is *King's Quest 2.5*, a game intended to fill the gap in time between the second and third game in the series. That project followed the same style as the original games. A more divergent project was announced and summarily canceled by the Tierra team responsible for the *King's Quest* remakes. Titled *Royal Quest*, this project was intended as a parody of the series. The team released a few screenshots revealing their intentions and a preview described the vulgar and South Park-style humor of the parody (Wells n.d.) (figure 9).



Figure 9. *The abandoned Royal Quest parody.*

[5.11] The project was abandoned with the explanation that the team intended to restore the standing of classic games and did not want to undermine their own efforts through releasing such a mean-spirited-seeming parody. The game has essentially disappeared from even Internet gossip—except, in the spirit of the fan remake, by the occasional person who claims that he or she will eventually produce their own version of the abandoned project. The rumor is kept alive by the same Internet communities that distribute the more faithful remakes, and perhaps it is from their midst that a new fan or a fan coauthor can emerge.

6. *King's Quest IX: The Silver Lining*

[6.1] Tierra's impressive efforts were not the end of fan efforts to reshape the *King's Quest* series. Another group of fans networking across the world decided to take on the ambitious project of creating a full sequel to the *King's Quest* games, this time using modern three-dimensional graphics and technology. Figure 10 below is one screenshot from that effort, which is now available only as a demo, as the full game has not yet been completed:



Figure 10. *An early screenshot from the Silver Lining project.*

[6.2] The project to create a sequel, now called *The Silver Lining*, was almost shut down by legal entanglements and the problem of copyright. Like fan fiction and fan movie projects, a fan-created game sequel is a violation of the original copyright holders' claim, but like those projects, such games often go unchallenged unless they reach a certain scale of attention. As the team now explains on their Web site, originally the copyright holders asked them to shut down: "On September 30, 2005, the team was asked to cease production by Vivendi Universal Inc., the owners of the *King's Quest* franchise. After weeks of negotiations and with the support of our fans, on November 29, 2005, Vivendi granted the team permission to legally continue production on the game" (Phoenix Online Studies n.d.a). The passion of the fans for the project—both those directly involved and those eagerly awaiting their chance to play the game—was the turning point in allowing the game production to continue. The only concession the fan author group had to make was removing the label of *King's Quest* from the project, so the game would not be confused with a legitimate creation of the original copyright holders.

[6.3] *The Silver Lining* stands out from the personal games movement in part because of the intense production values at work. Often personal games are associated with inferior production, limited graphics, and outdated technology. This is largely because they tend to be

the works of an independent creator or small team operating with only their own money, no hope of compensation, and only their free time to devote to the project. Other *King's Quest* fan sequels adhere primarily to this more familiar personal game model, such as games like *King's Quest 2.5*, intended to fill small gaps within the series. The dated feel of most such independent projects harkens back to the days before gaming was taken over by a corporate mentality, but this leads to assumptions about a lack of innovation within this world: to an outsider, it can look entirely stagnant, with graphics and interfaces literally frozen decades back in the realm of the two-dimensional side-scrolling game. These games innovate in other areas, such as story or presentation, but are by their very nature not at the forefront of technical innovation. They offer a chance for a fan voice to tell a story in this medium, but that voice is rarely heard outside the underground game community.

[6.4] No accusation can be made against *The Silver Lining* of falling under this stereotype: the graphics and technology in use are at the forefront of innovation. However, much of the origin of *The Silver Lining* matches the same humble beginnings as other independent efforts. There is no corporate powerhouse behind the *The Silver Lining* project, and no one on the creative team is being paid. When the final game is released, no one will make a profit: the game will be available for free, whereas a comparable effort by a corporation would be priced at \$30 to \$40 a copy. The development team, which calls itself Phoenix Online Studios, explains the driving motivations behind the team in terms of resurrecting the experience of the games they are so devoted to:

[6.5] The first is to bring the genre of adventure gaming back to its roots while giving it an overhaul of new elements such as the contemporary graphic format and more attention given to plot rather than random "pixel hunting"...[and] to create a community for our fellow adventure gamers where they can be given what they miss from the golden days and provide a space where they do not feel so isolated from the current trends of the gaming industry. (Phoenix Online Studios n.d.b)

[6.6] Phoenix Online Studios here acknowledges one of its primary motivations as fan authors: the pleasure of other fans moved by the values that these cocreators claim this particular style of game embodies.

7. Conclusion

[7.1] Like modders, fan fiction writers, or the creators of fan vids, the new cocreators of these neoclassic adventure games are participants in a fusion of play and labor. They produce content without reimbursement for their time or efforts. That content is in turn made freely available, easily downloadable by fellow enthusiasts through communal hubs like that of the Adventure Game Studio Web site. Sometimes these releases are even in clear competition with the commercial endeavors of the primary creators, as with the *King's Quest* remakes and Sierra's rerelease of the series. The audience is small, and while authorship may have passed to the fans, ownership remains in the hands of the creators. Yet the fan cocreators persist and through their authorship continually recreate the worlds of their devotions through a practice of a still-evolving tradition of folk art gone digital. The tools of the trade, with their baseline

interfaces and engines providing for the same style of interactions as the early games of the classic era, encourage both adherence to the standards of the genre as well as deviation and further expression through personal consideration of the potential points of departure of the adventure game experiences. Whether that authorship results in new personal games following original storylines or in so-called fan games emerging directly out of works of the classic era, these authors are participating in a postcommercial venue of production that encourages the proactive remix of cultural artifacts as part of the building of digital folk art.

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Praxis

Endless loop: A brief history of chiptunes

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[0.1] *Abstract*—Chiptune refers to a collection of related music production and performance practices sharing a history with video game soundtracks. The evolution of early chiptune music tells an alternate narrative about the hardware, software, and social practices of personal computing in the 1980s and 1990s. By digging into the interviews, text files, and dispersed ephemera that have made their way to the Web, we identify some of the common folk-historical threads among the commercial, noncommercial, and ambiguously commercial producers of chiptunes with an eye toward the present-day confusion surrounding the term *chiptune*. Using the language of affordances and constraints, we hope to avoid a technocratic view of the inventive and creative but nevertheless highly technical process of creating music on computer game hardware.

[0.2] *Keywords*—Adaptation; BBS; Cracking; Demo scene; DJ; Game Boy; Gaming; Hacking; Music; Participatory culture; Personal computing; Piracy; Programming; Rave; Remix; Sampling; Sound synthesis; Subculture; Teenagers; Tracking; Video game; VJ; Youth

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1. Introduction

[1.1] Raw, noisy, forbidding, industrial, illegal, outdated, subversive, underground. These adjectives color Malcolm McLaren's account of working with chiptunes artists in a 2003 feature for *Wired* magazine. In his portrait of young musicians who prefer 1980s home computers to the latest digital audio workstations, McLaren declared that "chip music" is both "the next step in the evolution of rock and roll" and the antidote to "moribund electronica." Such a gushing piece sufficiently raised the suspicion of its subjects to elicit an open letter from chiptunes community leader Gareth Morris (2004) questioning McLaren's "motives" for crafting such an "inaccurate" portrayal. Unfortunately, despite his claims of an "already well developed" style with "25 years of chip music history," Morris's letter does little to clarify McLaren's image of a "video arcade gone mad."

[1.2] In its strictest use, the term *chiptunes* refers to music composed for the microchip-based audio hardware of early home computers and gaming consoles. The best of these chips exposed a sophisticated polyphonic synthesizer to composers who were willing to learn to program them. By experimenting with the chips' oscillating voices and noise generator, chiptunes artists in the 1980s—many of them creating music for video games—developed a rich palette of sounds with which to emulate popular styles like heavy metal, techno, ragtime, and (for lack of a better term) Western classical. Born out of technical limitation, their soaring flutelike melodies, buzzing square wave bass, rapid arpeggios, and noisy gated percussion eventually came to define a style of its own, which is being called forth by today's pop composers as a matter of preference rather than necessity.

[1.3] The study of games suggests comparison with a variety of cultural traditions: games as moving images (King and Krzywinska 2002), as stages for theatrical performance (Laurel 1991), and as literature (Murray 1998), but the role of music, sound, and noise in computer games remains relatively underexamined. By observing the interrelated constraints, aesthetics, and compositional strategies of chiptunes, we illustrate a creative transforming and repurposing of technology that resonates widely in contemporary gaming and computing cultures. To produce music in the ways we document reflects a preference derived from, but no longer limited to, games.

[1.4] As the exchange between McLaren and Morris reveals, the term *chiptunes* does not refer simply to video game soundtracks or compositions for early home computers. Rather, it is currently applied to a broad, and occasionally confusing, array of communities, practices, and technologies. We chronologically trace the migration of chiptunes, in name and aesthetic, across four historical moments that came to bear on the contemporary use of the term. In doing so, we document cultural phenomena that have not yet received significant scholarly attention and further clarify the term *chiptunes*.

[1.5] The development of chiptunes draws on the interrelated histories of home computing, video gaming, bulletin board systems (BBS) and Internet communications, and electronic music. We focus largely on events that take place in Europe and the United States to the exclusion of contemporaneous developments in other parts of the globe. Many paths remain to be followed from the mass production of programmable sound chips. In particular, we look forward to future scholarship on the role that computer music and video game audio play in Japanese popular culture.

2. Home computers

[2.1] Before the appearance of microcomputers at the end of the 1970s, digital arcade games provided the primary computing experience for people outside of financial data centers, university labs, and military research facilities. Installed in loud public spaces like bars and roller-skating rinks, the experience of playing these games was likely accompanied by the sound of a nearby radio, DJ, or jukebox playing the latest disco and progressive rock. In the early 1980s, computer gaming followed computers into the privacy of the home. The sound produced by arcade cabinets might have competed with other environmental noises, but many of the earliest home computer games included only a brief theme, a few sound effects, or no sound at all. The general-purpose home platforms were not as well suited to audio reproduction as the custom-built arcade cabinets. Nevertheless, during the first few years of the 1980s, the number of platforms diversified, and each new design provided a different set of affordances for the growing number of computer music composers to explore.

[2.2] The Apple II home computer, released in 1977, included a single speaker inside of its case that could be programmed to play simple musical phrases or sound effects (Weyhrich 2008). In-game music was very rare as memory storage for audio data was limited and audio playback was costly in terms of the central processing unit (CPU) cycles ([note 1](#)). The Atari VCS game console, released the same year as the Apple II, was designed to be attached to a television. Its television interface adapter (TIA) controlled both the audio and video output signal. Although the TIA could produce two voices simultaneously, it was notoriously difficult to tune (Slocum 2003). Rather than include multivoice harmonic passages for a machine with unpredictable playback capacity, games such as Atari's *Missile Command* implemented rhythmic themes using controlled bursts of noise for percussion instruments (Fulop 1981). Programmers charged with interpreting recognizable musical themes from arcade games, films, or pop groups were less free to experiment. Data Age's *Journey Escape* (1982), billed as "the first rock video game," struggled against the tonal limitations of the TIA in its squeaky interpretation of Journey's hit song "Don't Stop Believing," while Atari's *E.T.: The Extra-Terrestrial* (1982) presented a harmonically accurate re-creation of the original theme.

Missile Command - Atari 2600



Video 1. *Game play from Atari's Missile Command (1981).*

Theme from Journey's Escape, Atari VCS, 1982



Video 2. *Theme from Journey Escape (Data Age, 1982).*

Theme from E.T., Atari VCS, 1982



Video 3. *Theme from Atari's E.T.: The Extra-Terrestrial (1982).*

[2.3] Despite (or perhaps because of) the challenges presented, some developers embraced the limitations of these early home computing platforms. In preparation for the development of Activision's *Pressure Cooker* in 1983, Garry Kitchen determined a set of pitches that the Atari TIA could reliably reproduce. He then hired a professional jingle writer to compose theme music using only those available pitches ([note 2](#)). The resulting song is heard playing in two-part harmony on both TIA audio channels during the title screen. *Pressure Cooker* further challenged the audio conventions of the Atari VCS by including a nonstop soundtrack during game play. One of the TIA's voices repeats a simple, two-bar bass line, while the other is free to produce sound effects in response to in-game events.

Atari - Pressure Cooker



Video 4. *Title screen and game play from Activision's Pressure Cooker (1983).*

[2.4] *Pressure Cooker* was an ambitious exception among its contemporaries. In 1980, most home computer music remained limited to single-voice melodies and lacked dynamic range. Robert "Bob" Yannes, a self-described "electronic music hobbyist," saw the sound hardware in first-generation microcomputers as "primitive" and suggested that they had been "designed by people who knew nothing about music" (Yannes 1996). In 1981, he began to design a new audio chip for MOS Technology called the SID (Sound Interface Device). In contrast to the kludgy Atari TIA, Yannes intended the SID to be as useful in professional synthesizers as it would be in microcomputers. Later that year, Commodore decided to include MOS Technology's new SID alongside a dedicated graphics chip in its next microcomputer, the Commodore 64. Unlike the Atari architecture, in which a single piece of hardware controlled both audio and video output, the Commodore machine afforded programmers greater flexibility in their implementation of graphics and sound (figure 1).



Figure 1. Sound Interface Device (SID), MOS Technology, 1981. (Photo courtesy Chris Hand, 2008; <http://flickr.com/photos/pixelfrenzy/2229900479>.)

[2.5] Technically, the SID enables a broad sonic palette at a low cost to the attendant CPU by implementing common synthesizer features in hardware. The chip consists of three oscillators, each capable of producing four different waveforms—square, triangle, sawtooth, and noise (note 3). The output of each oscillator is then passed through an envelope generator to vary the timbre of the sound from short plucks to long, droning notes. A variety of modulation effects may be applied to the sounds by the use of a set of programmable filters to create, for example, the ringing sounds of bells or chimes.

[2.6] Several peripherals and cartridges were developed to take advantage of the music-making possibilities of the Commodore 64's SID chip, but even the best of these products (note 4) could not match the flexibility and freedom of working with the chip's features directly by writing programs in 6502 assembly language (Pickens and Clark 2001). Of course, although the SID's implementation of sound synthesis would be familiar to electronic musicians of the time, programming in assembly was a very different experience from turning the knobs and sliding the faders of a comparable commercial synthesizer like the Roland Juno-6 (figure 2; Friedman 2008b). Early Commodore 64 composers had to write not only the music, but also the software to play it back.



Figure 2. Roland Juno-6 synthesizer.

[2.7] In a 1993 article for *C=Hacking* magazine, Anthony McSweeney offered a window into the practices of early chiptune composers through an analysis of Rob Hubbard's SID routines. McSweeney suggested that not only was the same routine implemented across the majority of the Hubbard oeuvre, but that other composers reverse-engineered the routine for use in their own projects (McSweeney 1993). As Hubbard composed the music for more than 75 Commodore 64 games between 1985 and 1989, the code quoted in McSweeney's article is likely representative of the code seen by many SID composers (MobyGames 2008). To understand the high barrier of entry to early SID programming, one need only look at an example pattern from Hubbard's *Monty on the Run* (Gremlin Graphics, 1985):

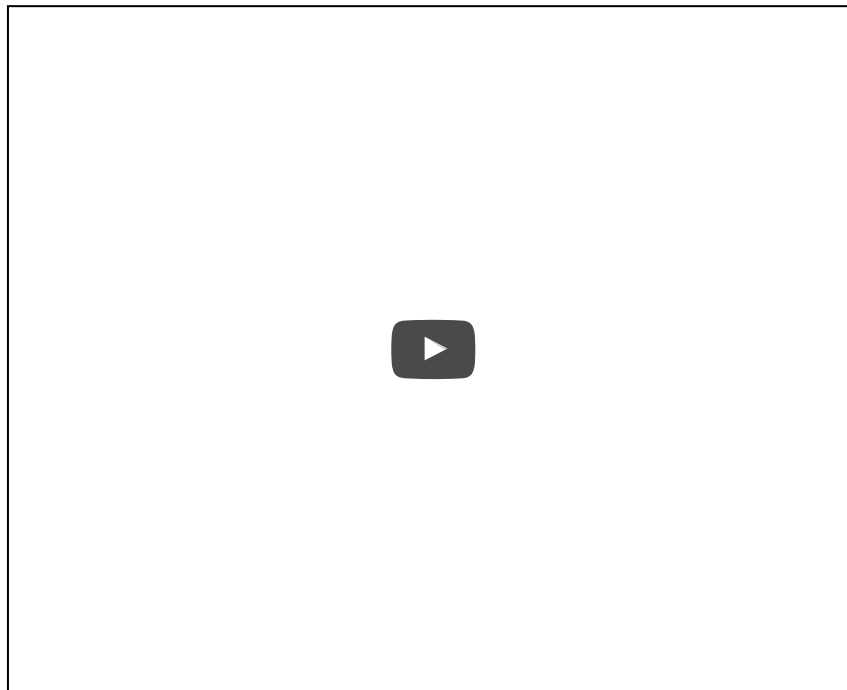
[2.8] ptn34=*

byt \$03,\$4a,\$03,\$4a,\$a3,\$f8,\$48,\$03

byt \$4a,\$03,\$4a,\$03,\$4a,\$a3,\$f8,\$48

byt \$03,\$4a,\$ff

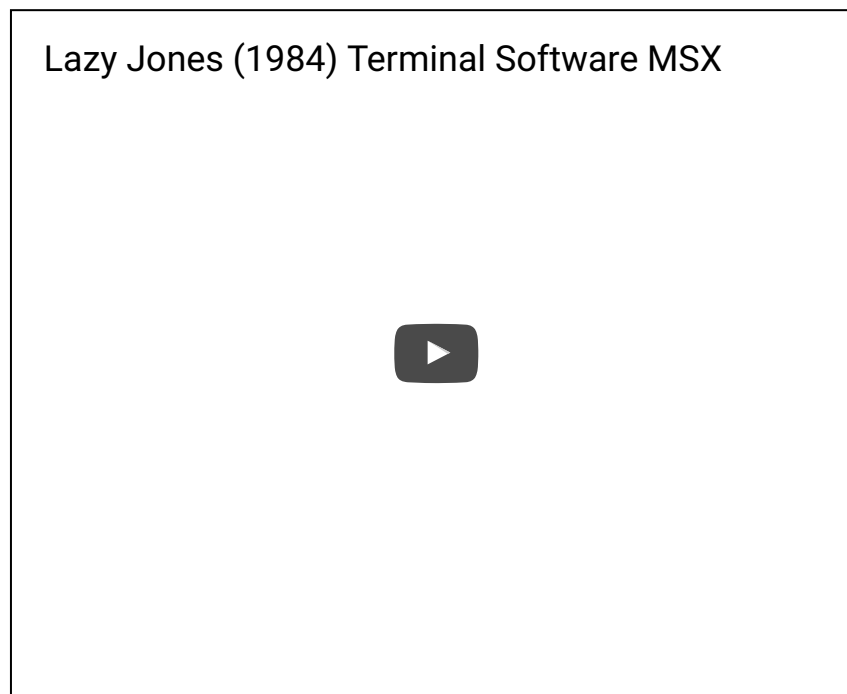
[2.9] This sequence of bytes follows a set of rules in which each hexadecimal number corresponds to series of binary bits indicating various characteristics of the note to be played (duration, instrument, pitch, effect). Instrument definitions use a similar system in which hexadecimal numbers represent the values of pulse width, waveform, envelope, filter, vibrato, and effect that would be set with knobs or switches on the face of a traditional synthesizer.



Video 5. *Game play from Gremlin Graphics's Monty on the Run (1985); music composed by Rob Hubbard.*

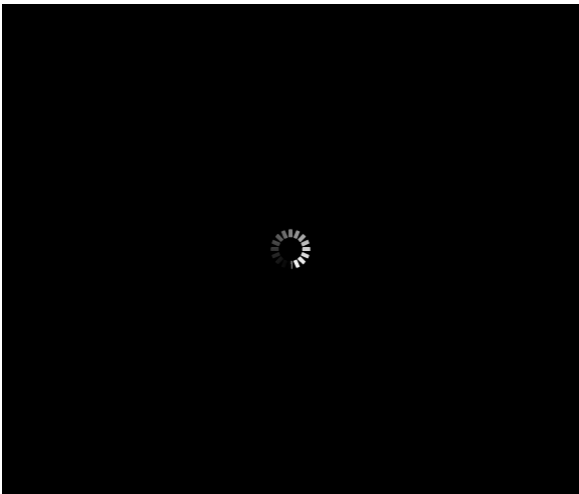
[2.10] Working in code affected the composition strategies of early chiptunes artists. Hubbard describes setting up his computer to repeatedly loop four bars of a song. While the passage played repeatedly, he would "sit on a hex editor...changing numbers" and listening for the results (Hubbard 2002). This repetitious methodology is reflected in the unique needs of game scoring. Unlike a film score, background music for computer games in this era was designed to loop endlessly along with highly repetitious game play. To govern the interaction and repetition of multiple loops within a single piece of game music, a master loop dictates the order in which sequences of phrase-length "microloops" are recalled (Collins 2006).

[2.11] The most accomplished loop composers layer, randomize, and stretch their loops to create a variety of sequences and combinations. For Terminal Software's *Lazy Jones* (1984), David Whittaker created 21 related but distinct patterns, each approximately 7 seconds in length. As players move their character through the on-screen rooms of the game, the background music subtly shifts according to their location (Collins 2006). The sequence and number of repetitions in which these tiny loops are played is determined dynamically according to player behavior. There can be no definitive score or recording of the background music for *Lazy Jones*. Like the music performed by marching bands in a parade, Whittaker's composition includes a collection of musical passages and a set of instructions to guide their selection and repetition.



Video 6. *Game play from Terminal Software's Lazy Jones (1984); music composed by David Whittaker.*

[2.12] In the mid-1980s, chiptunes and computer game music appeared largely indistinguishable. The game music was not distinct from the rest of pop music, however: the songs reflected the musical interests of their composers. Most of the composers discussed here were young men living in Europe and the United States, and the influence of heavy metal, electro, New Wave pop, and progressive rock were prevalent throughout the 1980s. By assigning a distinct timbre to each of the voices, the SID could emulate the conventional instrumentation of a four-piece rock band: drums, guitar, bass, and voice (Collins 2006). For example, Martin Galway's 11-minute title track for Origin System's *Times of Lore* (1988) reflects the influence of classical guitar in heavy metal (note 5). Like the opening section of Metallica's "Fade to Black"



Commodore 64 was a home computer that happened to be well suited to gaming, whereas the NES was strictly a gaming console. The Commodore 64 shipped with programming tools, a QWERTY keyboard, and rewriteable diskette storage that enabled experimentation. The NES, by contrast, operated more like a VCR and loaded games from read-only cartridges.

[2.14] The NES was introduced in Europe in 1986 but never achieved the success it found in the United States (Nintendo 2008). As the decade came to a close, European gamers appear to have favored programmable home computers like the Atari ST, Amiga, and IBM PC-compatible machines to the closed game consoles like the NES, Game Boy, and Sega Genesis. This divide in platform preferences explains why, in comments made in 2002, composer Rob Hubbard recalled "[missing] out on a lot of [chiptune] developments" by moving to the United States in 1987 (Hubbard 2002).

3. The tracking, cracking, and demo scenes

[3.1] In 1987, Karsten Obarski built a tool called *The Ultimate Soundtracker* for his Amiga A500 to help him in his job composing music for Rainbow Arts, a German game development company (Wright 1998). Because he was tired of coding computer music by hand, Obarski designed a tool that graphically represents the four channels of sound on the Amiga's sound chip like a vertical piano roll. The piano roll metaphor elegantly matched the looping structure common to nearly all music playback subroutines of the SID period. Most importantly, *Soundtracker* provided an environment in which nonprogrammers could access the sophisticated music tools in their home computers without needing to learn a programming language (figure 3).

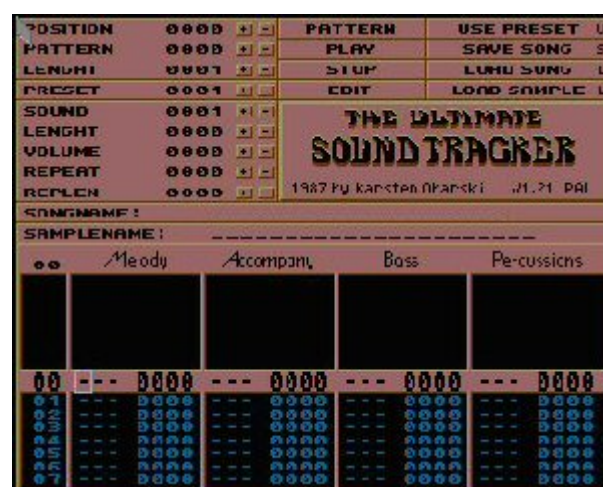


Figure 3. Screenshot from Karsten Obarski's software *The Ultimate Soundtracker* (1987).

[3.2] Tracking tools for the Commodore Amiga, Atari ST, and MS-DOS personal computers share a few common features. They all inherited the conceptual structure of

looping patterns from Hubbard's generation of SID programmers but represented them in the form of on-screen piano rolls rather than as lines of assembly code. Because they play back digitally sampled sounds rather than relying on hardware synthesis, tracker tunes no longer meet the strictest definition of chiptune. Yet despite the freedom to sample from any source, many tracker composers chose to continue using the triangle waves, noisy percussion, and synthesized bass tones that characterized the SID chiptunes. Tracker software developers likewise implemented the same hexadecimal notation used by SID programmers to indicate effects like portamento, vibrato, and arpeggiator.

[3.3] Just as the barriers to making computer music lowered with the availability of tracking tools, so did chiptunes composers create a new space for sharing their work. In the 1980s, commercial computer games typically included additional software to limit their unauthorized reproduction. With each release, adept reverse engineers set about circumventing the new constraints. By the end of the decade, the practice of *cracking* the copy protection code and redistributing commercial software had developed into a competitive global culture complete with group rivalries, codes of conduct, and complex communication networks. Cracker groups used BBS to trade software, communicate with friendly users, and taunt others (*BBS* 2004). Eager to inflate their reputations, cracking groups began to insert identifying information into the software they distributed. Initially, these edits were little more than tags on a title screen, but as cracking grew more competitive in the late 1980s, the little tags grew into complex multimedia demonstrations complete with sophisticated animations, lengthy scrolling texts, and custom music. These *intros* to cracked software gave amateur chiptunes artists a new stage for their work. As competition among cracking groups grew more fierce, intros became increasingly ornate and migrated away from the cracked software into stand-alone *demos* (Tasajärvi 2004).

Commodore 64 Crack Intro Collection



Video 9. *Montage of intros by Commodore 64 software cracking groups.*

[3.4] Members of the emerging *demo scenes* of Scandinavia and Western Europe adopted tracker software like *Soundtracker* to compose the background music for their productions (Tasajärvi 2004). Trackers were distributed free of cost and often were used as playback software among fans. In contrast to the more popular MIDI format, which contains only the musical notation, the file formats for distributing tracker music contain both the patterns and samples used in a song. Furthermore, unlike compressed digital audio files like MP3s, when tracker files are opened in a compatible tracker, the patterns and instruments are rendered as openly readable, editable data. This architecture enabled a type of situated learning for novices and blurred the barriers between artists and fans in much the same way that the View Source feature of the NCSA Mosaic Web browser encouraged the rapid growth of the early World Wide Web by exposing the underlying markup language of Web pages to future publishers.

[3.5] In the 1990s, spurred on by big rave-like parties in Europe, online competition, and the explosive growth of international communication via Fidonet and the Internet, tracker music and chiptunes became increasingly independent of their origins as the backgrounds of games and demos. Musicians and groups released collections of tracker music called *musicdisks* or *musicpacks*, complete with artwork, liner notes, and customized players. In 1997, a tracker contest sponsored by the Hornet Archive fielded over 300 entries, and the next year, they estimated that over 500 users participated (Snowman 1998). Shortly afterward, the momentum of the tracking community mysteriously ended, despite the continued growth of the demo scene. Necros, one of the best-known trackers, speculated publicly that tracking was disappearing as a result of "slowly merging into the 'internet music scene,'" though he

struggled to define what that might mean, other than he felt the sense of community being "reduced to the sum of our technology" (Necros 1998).

[3.6] From 1988 to 1998, chiptunes experienced two important migrations. First, the introduction of sample-based tracker software unhinged the chip from the tune. Although SID programmers were able to create a vast array of sounds from their chips, they always had been limited by the constraints of their hardware platform. However, tracker-based chiptune composers were selecting SID-like samples because of aesthetic preference rather than technical constraint. The second migration was away from the backgrounds and title screens of computer games and into the illicit intros appended by crackers. As the demo scene established its independence, chiptunes were carried out of the gaming sphere altogether to finally establish their own stand-alone format: the downloadable musicdisk.

4. Micromusic.net and the Game Boy musician

[4.1] In 1998, the same year that the Europe-based tracking scene hit its peak then all but disappeared, chiptunes *netlabels* emerged that appeared to build on the concept of the musicdisk. Micromusic.net, one of the largest netlabels, describes itself as "an underground sound community, a digital lifestyle platform" (Micromusic.net 2008). Users are encouraged to upload their own works, to advertise local functions, and to comment and interact as a global but intimate group of creators. The structure of the site makes explicit the many different forms of production in the chiptunes scene: music, clothing, and hardware are available in the "microshop," software tools are found in the "microwarez" section, "microradio" continuously streams user-contributed material, and "microhype" hosts video content.

[4.2] Unlike Micromusic.net's community model, newer netlabels like 8bitpeoples and Jahtari serve a more traditional role as tastemakers and distribution nodes for chiptunes music. The mission of 8bitpeoples is to provide digital copies of "quality" chiptunes music along with sales of chiptunes in the traditional pop formats of vinyl and compact disc. Jahtari, a free netlabel specializing in what it calls "digital laptop reggae," explains its aesthetic mission in terms of innovation on an older form, "not... emulating old classics with new technology but about doing something to dub that hasn't or couldn't [have] been done before" (Disrupt 2005).

[4.3] Unlike the SID programmers and demo scene trackers, however, the tools used by artists on these netlabels are no longer cutting edge. Calls for innovation on older themes or for quality music do not suffice to explain why so many of these producers choose to use home computers and game consoles from the 1980s. The Australian hardcore techno label Bloody Fist Productions explains that the use of trackers and

Amiga computers among its artists is because the machines offer "incredibly cheap methods of making noise" (Newlands 1997).

[4.4] Although Los Angeles-based producer Baseck also notes cost as an influence on his choice to use a Nintendo Game Boy in production and performance, cost alone clearly isn't the deciding factor (Ohanesian 2008). Commonly pirated music production software like Ableton Live (Ableton) and FL Studio (Image-Line Software) far undercut the Game Boy in terms of cost, flexibility, learning curve, and ease of use. The reactions of audiences to chiptune artists suggest another powerful motive for using game consoles. Contemporary chiptune artists wield their repurposed gaming hardware in a ritual attempt to activate the personal attachments that many young people have formed with these objects. Artists whose compositions might fall into other genres distinguish themselves from performers who use a laptop or a sampler by deploying familiar but seemingly childish pieces of technology in a highly visible and surprising way. Even Sonic Death Rabbit, Baseck's collaboration with metal musician Cristina Fuentes, uses Nintendo Game Boys alongside children's toy guitars and turntables. Their live show revolves not just around the use of technology but also the performance of it in a way that relies on the audience's understanding of the cultural weight of those objects and attitudes (Sonic Death Rabbit 2006).

sonic death rabbit - live @ darkmatter soundsyst...



Video 10. *Sonic Death Rabbit, live performance.*

[4.5] The Game Boy enjoys peculiar prominence among contemporary chiptunes artists (Blip Festival 2008). The handheld gaming console is perhaps the most common gaming platform in the world, with global sales of over 200 million compatible Game Boy systems (Nintendo 2008), but popularity is not enough to explain its dominance.

Tracking software had enabled a wider diversity of musicians to compose chiptunes independent of game development, programming, and cracking. The cost of this independence was an intimacy with the audio hardware experienced by composers of SID music. Although home computers and game consoles had stopped shipping with synthesizers by the mid-1990s, the Game Boy continued to include its polyphonic sound synthesis architecture across its many hardware revisions and rereleases. Thus, the Game Boy is not only the most widely available gaming platform in the world, but it also may be the most widely available synthesizer.

[4.6] Game Boy, like the NES, is designed to be a read-only system. By the 1990s, however, enthusiasts using special rewritable cartridges began to reverse engineer the Game Boy platform and document their findings on the Web (Morgan 2008). One of the first widely distributed applications for this newly opened platform was Nanoloop, a synthesizer and sequencer application released in 1998 (Wittchow 2008). Nanoloop was followed shortly after by a second music application called Little Sound DJ (LSDJ), which continues to be widely used by chiptunes artists today (figure 4).



Figure 4. Cartridge for the Nintendo Game Boy with space for custom erasable programmable read-only memory (EPROM) chip (Handheld Museum, 2008).

[4.7] Little Sound DJ embodies the history of chiptunes in software. It gives composers direct access to the four-voice polyphony of the Game Boy sound architecture like Hubbard's SID routines, yet it also implements the digital sample playback and a piano roll sequencer introduced in Obarski's *Soundtracker*. Since the late 1990s, the LSDJ software has implemented MIDI compatibility for those users who solder their own hardware interface (Morris 2002). This feature highlights the biggest

distinction between the Game Boy/netlabel community of chiptunes artists and those from the tracker/musicdisk era. Although tracker software enabled nonprogrammers to create music with their computers, it remained largely isolated from conventional recording studio technology. By adding a MIDI interface to a game console, a tool like LSDJ connects chiptunes to the traditional electronic music world. Not only can nonprogramming musicians make music with their game console, they can now integrate the console with their existing studio practice (note 6).

5. 8-bit cover bands

[5.1] One reason that the term *chiptunes* is more confusing today than it might have been in 1987 is due in no small part to the many different forms in which video gaming appears in popular music. There are songs that reference games, either lyrically or through the use of recorded samples; groups who interpret music from games in different arrangements; and artists who deploy the same production technologies as game music. The barriers between these practices are porous and are complicated by either a lack of clear information or by the choices of a given artist.

[5.2] In 1982, the American pop musicians Jerry Buckner and Gary Garcia had a hit with "Pac-Man Fever" (1981) (<http://www.youtube.com/watch?v=0-MONIVP6kI>). No indication was made that the duo regarded the sonics of Namco's *Pac-Man* as music in its own right. Samples from the Namco game are deployed only as nonmusical dressing for a conventional guitar-based rock song that portrays video gaming as an addictive novelty. In contrast to Buckner and Garcia's disdainful treatment of gaming as a ridiculous fad, the *Pac-Man* theme reappeared 10 years after its U.S. release in a track by Richard D. James under the alias Power-Pill. Simply called "Pac-Man" (1992), James's piece used sound effects and sampled elements of the game's soundtrack as essential musical materials in the song's composition.

Power-Pill - Pacman (Power-Pill Mix)



Video 11. *Power-Pill, "Pac-Man" (1992).*

[5.3] At the end of the 1990s, bands like the Minibosses, Press Play On Tape, and The Advantage began to record progressive rock interpretations of themes from NES and Commodore 64 computer games. While James's "Pac-Man" drew materially from the *Pac-Man* arcade game by sampling its sound effects, these bands appropriate only the compositions from the games they reference. The technical apparatus and resulting sound of the chiptune is divorced from its composition. In contrast to the contemporary Game Boy artist whose performance incorporates the physical artifacts of game culture, the cover bands present themselves on stage like traditional rock bands, with electric guitars and acoustic drums (Advantage 2006). By using conventional instrumentation, these cover bands offer fans of rock music an opportunity to experience computer game music within a familiar aesthetic framework. Unfortunately, this accessibility sacrifices the chiptunes' dynamic looping structures and rich aural palette. Though these bands exist to celebrate the work of early chiptune musicians working in games, their validation excludes the music's material innovations.

Minibosses - Super Mario Bros. 2



Video 12. *The Minibosses performing music from Super Mario Bros 2 at the 2006 Penny Arcade Gaming Expo.*

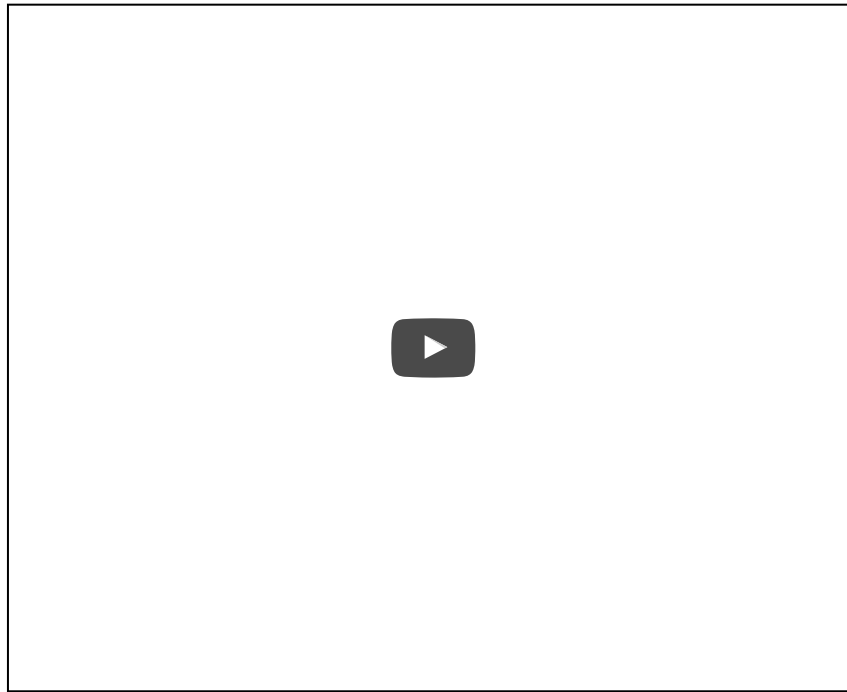
[5.4] The group 8 Bit Weapon is a three-person band that plays a type of synth pop they describe as "8-bit rock." Like Sonic Death Rabbit, their live performance relies on the visual significance of 1980s hardware—home computers, electronic learning toys, calculators, and game consoles—in combination with the more conventional pop instrumentation of keyboards and acoustic drums (8 Bit Weapon 2001). In a curious moment of cultural recursion, Nokia recently hired the band to score a handheld game called *Reset Generation*. The game's marketing copy states, "Welcome back to the playground of your youth" and features numerous references to popular computer games of the mid-1980s (Nokia 2008). Like *Reset Generation*, 8 Bit Weapon invites listeners back to a 1980s "playground" that may or may not have ever existed. Whereas both the Game Boy hackers and 8 Bit Weapon modify 1980s platforms, 8 Bit Weapon's rock band format embraces a sense of retro kitsch while the chiptunes artists appear to see themselves working with a living medium.

First footage of Reset Generation on N-Gage



Video 13. *Advertisement for Nokia's Reset Generation (2008); music by 8 Bit Weapon.*

[5.5] Songs that interpret or appropriate chiptunes do not appeal only to audiences with gaming experience. In 1999, Zombie Nation's "Kernkraft 400" became a club hit in Europe and eventually the United States (Zombie Nation 2000). The song uses the melody line from "Stardust," one of David Whittaker's 21 *Lazy Jones* loops (Whittaker 1984). Rather than creating a sample from the game, it is likely that Zombie Nation used a MIDI module containing a SID chip to replay the short melodic phrase (Zombie Nation 2008). The widespread popularity of "Kernkraft 400" suggests that the appeal wasn't dependent on recognizing obscure game references or compositional effects but on the strength of Whittaker's original chiptune.



Video 14. *Zombie Nation, "Kernkraft 400 (Original Mix)" (2000).*

6. The endless loop

[6.1] The strictest definition of chiptune refers to a song composed exclusively for performance by a microchip capable of synthesizing sound. The chiptune culture that emerged from the wildly prolific SID era of the 1980s has taken the term and aesthetics far beyond that simple definition. By migrating first away from hardware synthesis and then away from gaming, the tracker scene demonstrated the ability of chiptunes to stand on their own. The Game Boy generation then brought the chiptune back to bear on a microchip without losing the affordances of the tracker interface or the freedom of digital sampling. Finally, examples of today's retro 8-bit aesthetic demonstrate the durability and accessibility of the chiptune by alternately denying and mobilizing it within existing the paradigms of rock and dance music.

[6.2] The artists of the Game Boy generation may be the last for whom chiptunes can hold a nostalgic appeal. Will their fans simply age with them, or will the chirping arpeggios, square waves, and creative spirit of chiptune music similarly captivate a younger audience reared on Playstation and the Xbox?

7. Notes

1. In this early period, digital sample playback was not entirely unheard of. For a stunning example, consider the introduction to Tom Snyder and Omar Khudari's *The Halley Project* (Mindscape, 1985) for the Apple. The audio represents a two-way radio

transmission, so its crackly, low-fidelity playback is consistent with the game's "star pilot" fiction.

2. As related during an interview with Nick Montfort, in Cambridge, Massachusetts, November 13, 2008.
 3. The illusion of greater polyphony was achieved in some particularly elegant programs by rapidly switching the instruments being sounded on a single channel.
 4. For examples of the Commodore SFX series of music products, see Zimmerman (n.d.).
 5. Unfortunately, few players likely heard the entire Galway composition for *Times of Lore*, as it only played during the game's title screen (Bagnall 2007).
 6. The development of the MIDI-compatible SidStation in 1999 allowed Bob Yannes's chip the same integration (Friedman 2008a).
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Symposium

Maps of many worlds: Remembering computer game fandom in the 1980s

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[0.1] *Abstract*—The technology used to create early video games allowed only for simple graphic displays. However, gamers vividly experienced an immersion in a fictional world through an interpretation based on detailed cover art, familiar elements of storytelling, and the gamer's own memories of similar landscapes, much as one interprets a poem.

[0.2] *Keywords*—Eighties; Nostalgia

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[1] Like many boys my age, I spent most of the 1980s immersed in alternate worlds, each with its own arcana and mythology. Even now, their names sound like an evocation, a chant in exotic language that brings back the depth and detail of other universes. The words conjure memories for me of places visited in dreams, as *Cair Paravel* would sound to the Pevensie children returned from Narnia, of adventures in a different dimension—or dimensions, because I spent time in various fictional universes, each with its own geography. Dantooine, Hoth, and Alderaan from George Lucas; Termight, Nu Earth, and Mega-City One from *2000AD*; Gethen, Whileaway, and Herland from feminist science fiction; Edoras, Isengard, and Lorien from Tolkien.

[2] There was another universe, its language and landmarks more obscure, more specialist. If your ears pricked at these names now, we would know each other as fellow travelers and would immediately recognize each other as part of that community. We could reminisce. See if they ring bells.

[3] *Eidolon. Exolon. Earthlight. Fairlight. Fractalus.*

[4] Those are the names of worlds—or adventures, missions, stories in those worlds—from 1980s computer games. Some were released on a range of home machines, but I played them primarily on the ZX Spectrum. The Spectrum was first sold in 1982 by Sinclair Research Limited. It had a one-channel speaker, and was launched with 16

kb of memory—15 kb more than its predecessor, the ZX81. Unlike the ZX81, it also displayed color, and hence the name. It displayed eight colors. Anyone who owned a ZX Spectrum could name those colors now, in another mantra from memory; and there is evocative magic in those names too; few 12-year-old boys would have encountered the word *cyan* before they found it on the Spectrum's key 5.

[5] It displayed eight colors, and this was the point: *only* eight colors, deployable as an "ink" foreground or "paper" background, on an eight-by-eight grid of pixels. As an evolution from the ZX81, this was a quantum leap, but the Spectrum's graphics were, by the standard of today's near-photorealism in games, severely limited. And this was the point. The titles above sound like a chant, almost like verse, and the worlds created on the Spectrum were poems, not photographs. They asked for your investment. They needed your imagination, your faith, your belief, to make them come to life. They invited you to help create worlds.



Figure 1. *TLL, or Tornado Low-Level (Vortex, 1984).*

[6] Figure 1 is a screenshot from *TLL, or Tornado Low-Level*, released by Vortex software in 1984. When I look at it, I'm surprised by how basic the graphics seem—not because gaming has moved on so dramatically, now that PS3 and Xbox titles are virtually indistinguishable from cinema, but because my memory of *TLL* is of the richer experience I read into the game, the world that the game implies and that I helped to imagine. I don't remember *TLL* in terms of moving a tiny black graphic of a plane up and down in forced perspective over blocks of crude color. My memories of the game involve swooping under bridges, skimming beaches, and buzzing the red roofs of neat white houses.



Figure 2. *Zzoom* (Imagine Software, 1983).

[7] Here's a similar example: *Zzoom*, released by Imagine Software in 1983 (figure 2). I don't remember *Zzoom* as a garish clutter of magenta airplanes and bright red tanks, like a kid's poster painting of a war zone. I remember the way palm trees rushed toward your windscreen in the desert zone, and the way, between attack waves, the camera drifted up into the clouds in a brief, calm interlude. In both cases, I remember landscapes, skies, seas, and natural environments rather than military hardware.

[8] The games were not photographs but poems; you had to do some of the interpretive work yourself. Or, to put it another way, they were not pictures of the fictional universe: they were maps. They were schematics. They offered a top-down diagram of a location—with symbols or simple shapes representing people, vehicles, and buildings—rather than a satellite image. They were a radar screen, with ciphers showing the location of obstacles and enemy, rather than the view from a cockpit. Playing the game was like flying on instruments only; what you saw on the screen was not intended to represent a fictional world as we experience our own. That world reached you through an interpreter, and it had to be decoded.

[9] The game offered a relationship with the player, an understanding, a deal. The deal was this: there is a real, rich world out there, which this game represents through a simplified interface. If you accepted the deal and immersed yourself in the game, you didn't see it as moving little graphics around a screen. You bought into the notion that the game was a go-between within your world and the other universe, that it was translating for you, back and forward.

[10] This deal went unspoken. It was, to use the phrase William Gibson coined in 1984, a consensual hallucination. It was subtly encouraged and supported by the media that surrounded these games. A surrounding visual and narrative discourse constantly and tacitly confirmed the idea of a rich fictional universe behind each game, which the technically limited graphics could only schematically imply. Each game was a

basic translation, a diagrammatic representation of a world revealed more fully through paintings and stories, and indirectly through cinema.

[11] I say "through cinema" not only because a number of games adapted blockbuster films of the time, in a small-scale, cross-platform franchise—so that the little graphics were assumed to represent *Rambo* (Ocean Software, 1985) or *Robocop* (Ocean Software, 1988)—but also because two movies, released during the early years of the ZX Spectrum's rise, had popularized the idea that a game was simply the visible interface of a larger universe.

[12] *Tron* (Steven Lisberger, 1982) and *The Last Starfighter* (Nick Castle, 1984) offered gamers the flattering reassurance that they were not merely teenage hobbyists but trainee warriors, learning skills that could be transferred to a galactic war, or godlike, all-controlling "users," revered by the champions of an electronic world. Both films had the premise that arcade games were merely simulations of real combat in a parallel universe, that the on-screen schematics were just a guideline, a two-dimensional representation of three-dimensional CGI.

[13] This conceit was picked up and continued in the visual discourse of ZX Spectrum cover art. Some of the earliest ZX81 games featured box design as primitive as the screen display—one release from Artic Software was simply packaged as *Adventure C* in text as bare and plain as the game itself—but software companies soon adopted the convention of advertising a game with painted or airbrushed artwork in the style of science fiction and fantasy paperbacks. Everyone knew the game looked nothing like that, but the art enhanced and enriched the actual graphics by providing a vision of the world on the other side of the interface.

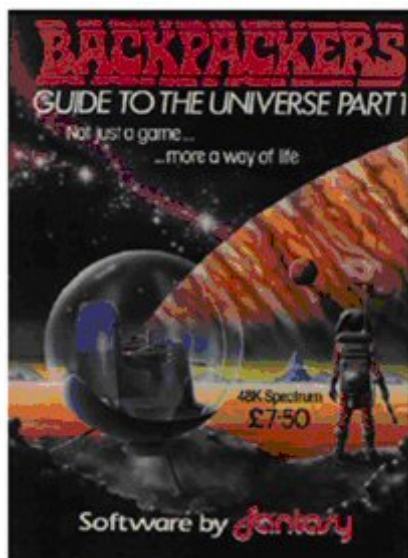
[14] The convention had been established by the earliest arcade machines of the 1970s, which surrounded the basic graphics of their screens with elaborate cabinet art. It was perpetuated by Atari's console ports of the same games, with even more primitive graphics and more lavishly painted console boxes. However, the ZX Spectrum, which published magazines that turned home gaming into a youth culture and lifestyle choice, played up the sense that every shoot-'em-up was a simulation of another world. One man in particular deserves the credit for this illusion: Oliver Frey, the house artist of *Crash* magazine.



Figure 3. *Backpackers' Guide to the Universe* (Fantasy Software, 1984).

[15] Figure 3 is *Backpackers' Guide to the Universe*, published by Fantasy Software in 1984. The little white figure is Ziggy, who had appeared in two previous games (*The Pyramid* and *Doomsday Castle*) from the same company.

[16] Following convention, *Backpackers' Guide* was promoted through advertising and cover art that suggested a rich science fiction story-world behind the garish screen display. Its loading screen, which displayed while the game booted up from cassette, rendered the same artwork within the Spectrum's limited palette (figures 4 and 5).



Figures 4 and 5. *Backpackers' Guide to the Universe* (Fantasy Software, 1984), as promoted through advertising and cover art, suggested a science fiction story world.

[17] Figure 6 shows the cover of *Crash* magazine from October 1984, previewing *Backpackers' Guide*. The painting, by Oliver Frey, goes further than the game's cover art. It makes Ziggy into a pop star. It imagines the details of his scarlet boots and monogrammed shoulder pads, his thigh-mounted control panel and inbuilt floodlight, his padded vinyl suit and floppy hair, like a science fiction front man from A-ha or

Duran Duran (no surprise, in hindsight, that Frey was drawing gay sex comics during the same period).



Figure 6. Cover of *Crash* magazine, October 1984, by Oliver Frey, previewing *Backpackers' Guide*. [[View larger image.](#)]

[18] Or rather, the painting imagines those details, but it implies that this is the real world of Ziggy and *Backpackers' Guide*, which eight-color graphics can only crudely represent. By moving the little white sprite on the screen, you guide this blond hunk's fantasy adventures. (In 1985, Ocean Software's game *Frankie Goes to Hollywood* literalized the idea of controlling pop stars through on-screen ciphers.)

[19] Finally, the worlds behind the game screens were elaborated through story. Just as the cover artwork of Spectrum software and magazines lifted its style from fantasy and science fiction paperbacks, so the inlay text—the fold-out information inside the cassette—borrowed from familiar science fictions and space operas. Each little plastic box would include a history in tiny font, a dense, evocative explanation of how you were called to be defending the Earth this time, the enemy you would be facing (the Seiddab, the Sept, the Bydo) and the equipment gifted to you (the Manta ship, the R-9a Arrowhead, the Cobra Mark III). The oversized package for *Elite* (Acornsoft, 1984) even included a novella, *The Dark Wheel*.

[20] Building on existing, familiar discourses—*The Hitchhiker's Guide to the Galaxy* had been broadcast on the BBC during 1981, and the original Star Wars trilogy was almost complete when the Spectrum was first released—and assisted by *Tron*'s conceit of a game as the crude interface with an elaborate science fiction mission,

programmers, designers, artists, and writers successfully created the illusion of an immersive game world based around a limited, primitive primary text and encouraged players to read something far fuller and richer into those basic graphics.

[21] It may not be surprising that blocky planetscapes and tiny spacemen could generate excitement. Even a nongamer can understand that *Space Invaders*, *Defender*, *Scramble*, and *Centipede* drew experts like Flynn from *Tron* into a zone of instant twitch reactions, a merging with the machine in a simulation of cosmic war. But recall my overriding memories of *TLL* and *Zzoom*, of drifting clouds and golden beaches rather than low-level aircraft and Exocet missiles. My sense of the worlds created on the ZX Spectrum is not of combat zones, but of exploring spaces and wandering through unfamiliar environments.

[22] One of the key features of *Crash*, generated at least in part by reader demand and fan submissions, was a central section where amateur gamers sent in their hand-drawn maps of sprawling caverns, forests, and cities: *Sabre Wulf*, *Kokotoni Wilf*, *Marsport*, *Avalon*. Computer games allowed teenage boys, whose everyday lives were regulated by the rules of school, the family home, and part-time jobs, whose lived geography was limited to walking distance and bus routes, to become not just warriors, but explorers; masters not just of galactic combat, but of landscape and metropolis (note 1).

[23] It's the landscape of games I remember more than anything, perhaps because, like the other kids at my school, I was a city boy, my environment made up of high streets and tower blocks. Sometimes my memories are of the strangest places, like locations in the backgrounds of action games, peripheral details that seemed to sketch an outside world. I mapped them onto places I'd seen in real life, beyond the city, and somehow they stood for what to me was an exotic countryside, the slightly scary thrill of wide spaces and open air, the excitement of vacation.



Figure 7. *Green Beret* (Konami, 1985).

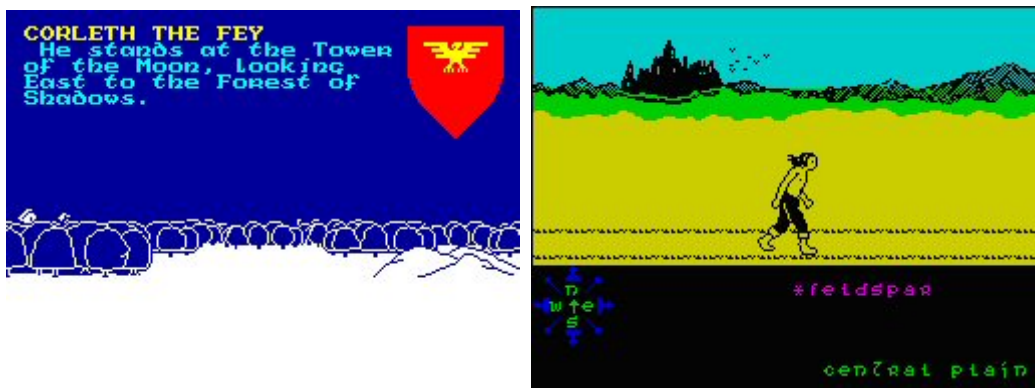
[24] I vividly remember—it almost seems absurd now, looking at those minimal graphics—the trees from Konami's *Green Beret* (1985) (figure 7). I linked them in my mind with the forest surrounding the rock-climbing wall I'd visited once with friends of my dad. Those bare graphics were icons that stood for something more. They were invested with the image of twilight falling behind treetops, with the scent of pines.



Figure 8. *Highway Encounter* (Vortex, 1985).

[25] And I remember this specific screen from *Highway Encounter* (Vortex, 1985) (figure 8). What I remember has nothing to do with the droids or the creatures. I remember instead the lines of roadside trees and crops. They are indelibly linked in my mind with another memory, of driving through France on a family holiday. The game recalled that strangeness, the slightly alien countryside, but importantly, it let me drive. It let me explore the road, and it gave me mastery and agency rather than a backseat view.

[26] ZX Spectrum games thrilled me, and they also scared me. Even now, 25 years later, I'd be reluctant to play *Corridors of Genon* (New Generation, 1983) and hear the monster's footsteps advancing behind me through a circular maze. But most of all, strangest of all, they felt *melancholy*. It was grown-up and liberating to move through worlds alone, but there was an overriding, and not entirely unpleasant, sense of loneliness about the exploration.



Figures 9 and 10. *Lords of Midnight (Beyond, 1984) (left) and the paths of Tir Na Nog (Gargoyle, 1984) (right).*

[27] Wandering the snowdrifts and blue-lit forests of *Lords of Midnight* (Beyond, 1984) (figure 9), or striding, solitary, down the paths of *Tir Na Nog* (Gargoyle, 1984) (figure 10), you were alone except for your enemies. You were independent, answerable to nobody, but you were also abandoned in a vast, hostile landscape, where a stranger on the same path almost always presented a threat rather than company.

[28] My experience of these games, then, while I engaged with them through the same interface as other players, is not quite the same as anyone else's. I invested my own memories and images into their templates and read the graphics through my understanding of "forest," or "mountains," or "beach," or "roadside," just as we all imagine characters and spaces in novels through our experience of places and people we know.

[29] Is this personalized, vivid investment in game space still possible now, with the photorealism of *Grand Theft Auto IV*? Nostalgia would say no, but as recently as *Grand Theft Auto: San Andreas* (Rockstar, 2004), I found that I could map my experiences of the simulated spaces—Los Santos, San Fierro, and Las Venturas—onto my memories of the real geography of Los Angeles, San Francisco, and Las Vegas. I could take special pleasure from admiring the sphinx of the Camel's Toe hotel, having visited the real-life Luxor, and looking up at the Big Pointy Building, remembering my own view of the Transamerica Pyramid. Increased realism may be no barrier to forming a personal connection with and immersion in video games. The medieval European village of *Devil May Cry 2* (Capcom, 2003) reminds me of family holidays in Germany, just as the medieval European village of *Nightshade* (Ultimate, 1985) did almost 20 years before—but it does require less work, less imagination, and less investment.

[30] *Grand Theft Auto* provided a picture postcard of places I'd seen. The ZX Spectrum encouraged me and other boys to read, and help create, a kind of poetry.

Note

1. There were, of course, girls who played computer games in the early 1980s. They accepted, or ignored, or otherwise negotiated the fact that most women in the games themselves were princesses to be rescued, pinups to be lusted over, or both roles in the same body. Games that resisted these stereotypes were the exception (such as Sandy White's *Ant Attack*, released by Quicksilver in 1983), as were the few women, such as Imagine's Ally Noble and Dawn Jones, who succeeded in the boys' club of the games industry (Hannah Smith, a writer for *Crash* magazine, was depicted on one

cover mud-wrestling in a swimsuit). But the experience of 12-year-old girls is quite different from that of 12-year-old boys, and though the imaginary universes we participated in surely overlapped, I cannot presume to guess what a young woman read into and took from these games. I am making enough assumptions in suggesting that other boys may have shared my experiences—and what I am describing here is, I think, about the specific experience of being a teenage boy (a city boy, a 1980s boy) for whom fantasies of mastery and independence in alternate worlds provided an escape from the restrictions and limits of real life, and the opportunity to play at being a *man*. The games offered, for the most part, myths of heterosexual masculinity—exploring, conquering, rescuing—and encouraged boys to inhabit and explore masculine roles in these stylized settings. There should be an article about what it was like to be a girl playing these games during the same period. I would love to read it, but it is not for me to write.

Symposium

Game over: Asian Americans and video game representation

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[0.1] *Abstract*—Even video games by Asian creators tend to depict primarily white characters or reference Asian stereotypes such as kung fu fighters or yakuza thugs. Games depicting the Vietnam war are particularly troubling for Asian players expected to identify with white characters. As the game industry continues to expand, its representation of Asians and Asian Americans must change.

[0.2] *Keywords*—Pop culture representation; Race

Phi, Thien-bao Thuc. 2009. Game over: Asian Americans and video game representation. *Transformative Works and Cultures*, no. 2.
<http://dx.doi.org/10.3983/twc.2009.0084>.

1. Introduction

[1.1] In 2004 I was playing *The Suffering* when I stopped in shock: a character in the video game, the ghost of a white bigot prison guard, blathered on about how it was justifiable to intern Japanese Americans during World War II.

[1.2] It was, and still is, the only reference to an Asian American racial experience that I've encountered in the many years that I've played video games. Of course, I don't play video games for a history lesson or to become enlightened about systematic oppression. But it was refreshing to see a game attempt to tackle an often overlooked and controversial period of American history, and it was refreshing to me as an Asian American to finally see an important issue from our community acknowledged in a video game.

[1.3] But even as other social issues are being explored in the increasingly sophisticated world of video games, such attention to or even acknowledgment of Asian American concerns is, unfortunately, rare. Video games have become a multimillion-dollar industry, outgrossing Hollywood films, and as they strive to become more and more sophisticated and reach broader audiences, thorny issues of representation will invariably come up, as race remains among the most dreaded issues, if not the most dreaded of all. And yet as I made my way through video games I'd played and loved, as well as ones I might not have ever picked up except to get a

broader understanding of the role of Asians and Asian Americans within video games, I became more and more disheartened to see my sense of limited representation, negative stereotyping, or simple exclusion repeated again and again.

2. Race issues gone global

[2.1] The international character of video game creation and production means that project leads, game and character designers, and programmers can be of any race, ethnicity, nationality, and gender. Clearly, then, the fact that throughout the gaming world nearly all characters, settings, and concerns remain white cannot be explained with the ready cop-out that "no, that character isn't a racial stereotype, it was designed by a [insert token person of color] guy and it was based on someone he actually knew."

[2.2] After all, race issues aren't just about stereotypes, but the institution of and reinforcement of beliefs regarding people of color. So if you have a company—say, a video game developer—that is made up mostly of whites in a field that caters to an audience that they perceive as overwhelmingly white and male (like the video game market), it doesn't really matter if you have a couple of token people of color doing some of your design and programming; the world that they operate in is already Eurocentric.

[2.3] For example, you would think, given that some of the world's greatest and most inventive video game developers and designers are Japanese, that there would be a wider proliferation of Asian characters. Yet the most popular and critically acclaimed Japanese franchises and characters (*Mario*, *Zelda*, *Final Fantasy*, *Resident Evil*, *Metal Gear Solid*, *Dragon Quest*, *Castlevania*, etc.) all feature primarily European/white characters or characters with white features. One could argue that these franchises—though created and designed by the Japanese—feature white characters because their stories are based in America or European-themed fantasy settings. But this reasoning is flawed, because it assumes that American equals white, and it ignores the question of why Asians may be so interested in creating imaginary fantasy settings where everybody looks white. Even games like *Project: Snowblind*, *Far Cry*, and *Killer 7*, which take place in Asia or Asian-themed worlds, do not feature any Asians as playable characters.

[2.4] What this suggests is that video games, no matter where they are produced and by whom, are created with a Eurocentric bias. No matter what game genre you play, from sports games to kung fu games to fantasy role-playing games to futuristic sci-fi first-person shooters, chances are the main playable character that you control (and can relate to and identify with racially) is a white man. For those of us who are

people of color and indigenous, it's rare that we are presented with a main character that we can identify with racially.

3. Everybody was kung fu fighting

[3.1] Though video games have come a long way in terms of graphics, control, accessibility, and sophistication, racial representation remains predictable. The Black, Pacific Islander, and Latino characters are usually in sports games or urban-themed games, the indigenous characters are usually only in the Western-themed games, and the Asian characters are usually only found in the kung fu games. Meanwhile, white characters can of course be found in abundance in every genre, both as primary and supporting characters. Asian men in particular are difficult to find in roles outside of martial arts games or historical period games such as the *Dynasty Warriors* series, *Tenchu*, or *Genji*. This seems to suggest that Asian men only exist in the mainstream imagination if we're in the feudal days of China or Japan, thus erasing our/my existence from present-day America. In fact, the one place where Asian American men regularly make appearances are as yakuza or triad thugs in some urban-themed games with contemporary settings, restricting these characters to background at best and stereotypical villainous at worst.

[3.2] It is especially perplexing and disappointing that Asian male characters are lacking at worst and foreigners at best in the "authentic" import racing game genre, even though Asian Americans had a large part in starting the import street racing culture here in America in the first place. Games like the *Midnight Club* series and the *Need for Speed: Underground* series boast about the authenticity of their product. Yet these games, developed in Canada and the United States, tend to feature white, Chicano, and black men and some Asian female models. When these games feature Asian men, they are actually Asians in Asia, specifically Japanese, not the pan-Asian American community of racers here in the United States. This is hardly surprising, given the racial stereotype that Asians are forever foreigners—a stereotype that has deep roots in the exploitation of Asian male labor while denying Asians the right to become legalized citizens.

[3.3] The representation of modern Asian women is a bit more prolific and diverse in video games than that of Asian men, yet just like their male counterparts, Asian women remain restrained to several stereotypical roles. They are usually supplementary to white men (for example, *Syphon Filter*, *Metal Gear Solid*) or romantic interests to white men (for example, *Indiana Jones and the Emperor's Tomb*, *Extermination*, *Resident Evil 2* and *4*). Asian women in video games usually fall in line with typical Western notions: mysterious, exotic, sensual—and partnered with any race of man except Asian. Even Kimora Lee Simmons, appearing as a digital version of

herself in the urban fighting game *Def Jam: Fight for New York*, is mostly relegated to the role of a prize to be won and, later in the game, a damsel in distress in need of a rescue. And you would think that a modern-day New Yorker like Kimora would wear modern clothes just like anyone else, but in the game, she's decked out in the Western man's wet dream embodiment of an Asian woman's outfit: a kimono.

[3.4] Many Asian women in video games symbolize the Western idea of the East as inherently feminine. When there needs to be a token character to represent Asia, it is usually a woman—for example, in the Japanese game *Killer 7*, the primary character is a morphing assassin named Harman Smith who can transform into seven different people of different races and abilities, all of them men—except for his Asian persona, wherein he morphs into a woman named Kaede. Likewise, in *Urban Reign*, the gamer plays white guy Brad Hawk, hired and brought to town by the female leader of a Chinatown street gang named Shun Ying Lee—a somewhat surprising scenario, given that she is Chinatown's brawling boss. But Asian characters ultimately must remain subservient to the desires of what is perceived as the typical game audience, namely white men, so that women are only allowed specific roles that will not threaten the basic righteousness or masculinity of such a player.

4. War: What is it good for?

[4.1] I love first-person shooters such as *BioShock*, *Halo 3*, and the *Half-Life* series. But shooting aliens, cyborgs, or demons is one thing. Shooting at people who look like you, and who curse at you in your mother tongue, in a game that is supposed to reenact an actual war that happened in your lifetime that tore apart your country and your people and your family, is quite another. I actually found that out the hard way when I started renting Vietnam War-themed video games for the purpose of writing this essay. Honestly, as a Vietnamese refugee child of a 10-year Southern Vietnamese soldier, it was not a video game genre that I really wanted to explore. But at the time I started on this project, there were no fewer than a dozen Vietnam-themed games on the shelves or in production, and as grotesque and perverse as the idea was to me, I started to play them.

[4.2] The first game I rented and completed was *Shell Shock: 'Nam 67*. Of the three characters I was allowed to pick as my avatar (none of them Asian), I chose an African American soldier. He and his platoon are stationed in a dusty camp ringed by barbed wire and sandbags, and as a player you can bring your money to the nearby prostitutes who solicit you with cheesy "me love you long time" accents, and you are treated to an in-game cut scene (gamer speak for a noninteractive movie within the video game) where your chosen prostitute leads you into a hut and closes the door—then the window shutters start to shake from your assumed boom-booming. In a level

where my unit was moving toward a village through a foggy rice paddy, we were ambushed by Vietcong wearing the black-pajama-and-rice-picker-hat ensemble that has come to symbolize Vietcong. One woman shouted at me in Vietnamese and opened fire on me with her AK-47. I turned and pulled the trigger on my controller, and the rifle roughly but realistically bucked and climbed as I fired a burst of bullets her way and her head exploded in a bright red gush. Later we got to a village, where I executed a bunch of Vietnamese and shot one escaping Vietcong soldier in the back. Later in the game, after some of my crazy platoon mates executed some Vietnamese civilians for fun, our Southern Vietnamese guide tortured a Vietnamese woman who is revealed to be a spy for the Vietcong, and as if to suggest that Asian men are even more brutal than any other race of man, he tortured her breasts with his knife before cutting her throat.

[4.3] You can see that although I might be a desensitized American, the Vietnamese in me was horrified and feeling sick at this point. Yes, horrible acts were done during the war, but there is something disturbing about portraying such graphic and realistic horrors in an interactive medium like a video game. And though this game and the glut of others like it were informed by Hollywood's interpretation of the war in films such as *Platoon*, *Full Metal Jacket*, *Apocalypse Now*, and *Hamburger Hill*, there is a visceral and psychological difference between sitting through a 2- or 3-hour movie, and playing through a 9- to 20-hour video game where you yourself are pulling the trigger and getting shot at. And if you're Vietnamese, it really complicates these issues, as you are basically forced to choose to identify against your real identity, to fight and kill those who are, effectively, you.

[4.4] What's surprising to me is that there is little discussion regarding the portrayal of wanton and malicious violence toward Asians in these games. Moreover, the portrayal of the Asian man as ultimately cruel, woman hating, and almost inhumanly evil is never discussed. I'm not trying to suggest that these games make it more likely that a person regardless of their race will act violently toward an Asian person. What makes me curious is that video game companies were able to take a racially loaded and traumatic event in our recent collective history into interactive entertainment with very little discussion or debate about it. Would video game companies have been able to make realistic, disturbing video games about a traumatic historical event so soon after those events took place if all the people involved in it were white? You may argue that there were even more games made about white people killing each other in the World War II game genre than there are games about Vietnam, but then again, those wars are farther away in our collective memory and in our history. More importantly, those games don't involve soliciting hookers and torturing civilians. Finally, these games are effectively the only games that feature Vietnamese people, yet again

reinforcing the same old roles that the West has for Vietnamese people in popular entertainment: hooker, or gook who gets shot.

[4.5] The lack of press surrounding Asian representation is not solely delegated to games about the Vietnam War. Garnett Lee (<http://www.1up.com/do/reviewPage?cId=3144682&p=2>) writes that the "over-played Hispanic culture references" could be seen as "offensive" in his *1UP* review of *Total Overdose*, yet I couldn't find a single review that mentioned the offensive, tired Orientalist clichés found in *Indiana Jones and the Emperor's Tomb*. Likewise, members of the Haitian community argued against the violence toward Haitian characters in *Grand Theft Auto: Vice City*. However, there was no discussion about the racial politics of a Chinese Triad boss hiring a black man to kill off Vietnamese gangsters in *Grand Theft Auto: San Andreas*. Most of the preview pictures for LucasArt's *Mercenaries* featured hapa character Jennifer Mui pointing her rifle at the head of various subdued Korean men, and the subtitle for the game is "Playground of Destruction." I sincerely doubt that many Koreans or Korean Americans would favorably see any of the conflict or tension in Korea, real or imagined, as being a playground. Would the video game industry make a game called *Columbine: Playground of Death*? This is not to suggest that African Americans and Latinos have it better than Asians, or that we should make a mockery out of Columbine. But I think it is relevant to ask, if other issues are being raised regarding what is offensive to whom, why isn't there a discussion when it involves Asians?

5. On the bright side

[5.1] I'm not calling for an end to video games, nor am I saying that the outlook is completely bleak. Games like *The Sims* series, the *NBA 2K* and *NBA Street* series, and *Fallout 3*, already offer vast character customization options, including a wide range of genders, appearances, and skin colors. In the popular game *Mass Effect*, not only can you fully customize your character's race, appearance, and gender, but the game's story line also boasts an opportunity for a queer relationship—though the game's insistence that the queer relationship is between two female entities, and the othering of an entire alien species as feminine and exotic certainly remains problematic. *Halo*, the critically acclaimed and commercial blockbuster series, features a lead protagonist, John, who is never seen without his helmet: he could be of any race—at least until the future Hollywood *Halo* film casts a white actor and ruins the racial ambiguity.

[5.2] In fact, maybe we are at the beginning of better and more varied representations of Asians and Asian Americans in video games. Enter *The Matrix*, despite being a painfully mediocre game, sold a lot of copies and may be the first big-budget game in which the two sole playable main characters are a black woman and an Asian man: Niobe (Jada Pinkett Smith) and her right-hand man, Ghost (Anthony

Wong). I was surprised when I was playing *Indigo Prophecy* that an elderly Japanese character who was speaking in stereotypical broken English started speaking in a husky Brooklyn accent, saying that he only put on the accent for show and that he had never been farther than Long Island. The critically acclaimed *Prince of Persia* series features a compelling Persian protagonist and a female Indian warrior. Jeremy Zoss, associate editor of the popular magazine *Game Informer*, reports that the sequel to *The Suffering*, titled *The Ties That Bind*, is "the only game [he's] ever seen that features an Islamic character that isn't a terrorist or villain"

(http://www.gameinformer.com/NR/exeres/A953FB4A-997D-4933-8163-E99099ADBAE8.htm?CS_pid=210826). And though *Jade Empire's* neo-Orientalist fusion of Asian cultures is often annoying and predictable, and they don't feature enough Asian American voice actors, the game does offer a wide choice of Asian male and female characters to choose from, and it provides opportunities for a romantic story between Asian characters, which is seldom seen in any form of Western popular entertainment.

[5.3] As the game industry continues to grow and expand, its representation of Asians and Asian Americans must grow more sophisticated and varied if it wants to keep up with its audience. We're not all straight white guys shelling out \$60 a game. We're not all content with white heroes, Asian men as cannon fodder, and Asian women as dragon ladies or damsels in distress. The game audience has become older, we're of every race and gender and sexual orientation, and we live (and play) all over the world. The game industry can't afford to neglect us forever. As Asian and Asian American consumers and gamers, we could stand to be more critical of racial stereotypes and demand a variety of characters who are more like us.

Symposium

Intrinsic motivation: *fIOW*, video games, and participatory culture

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[0.1] *Abstract*—Through a comparison of the free online Flash game updated for PlayStation 3 to *World of Warcraft*, I investigate participatory culture in the game community. The question of why people pursue activities that offer no monetary or similar reward is answered in part by analyzing fan-produced game modifications or mods.

[0.2] *Keywords*—Csikszentmihalyi; Fan game; Mod

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1. Introduction

[1.1] Recently, the majority of my gaming has centered on two games: *fIOW* by thatgamecompany (2007; <http://thatgamecompany.com/>) and *World of Warcraft* (WoW) by Blizzard Entertainment (2004; <http://www.blizzard.com/us/>). The time I spend on these two games can hardly be said to be equal, with WoW dominating most of my time while I turn to *fIOW* for short, periodic interludes of "casual" play between the endless work of increasing the skills and experience of my character (that is, *leveling*) in WoW and the endless work of thinking about games while trying to capture some of these thoughts within the bright white space of the electronic page. I suppose you might say that at this point in my life I find my time split between leveling a 40-something priest in WoW and leveling—at a much slower pace—a career as an (early 30s) academic scribbling away at a dissertation on games. Somewhere in between these two modes of work is *fIOW*.

[1.2] Originally released as a free online Flash game (<http://intihuatani.usc.edu/cloud/flowing/>), *fIOW* is now updated and available for the PlayStation 3 as a low-priced download over Sony's gaming network. In *fIOW*, you play an elegant, abstract creature swimming around in a sea of other organisms, consuming them at your own leisure and thus transforming yourself into a larger, more elaborate entity composed of connected circles and polygons, intricate

assemblages of lines and shapes (figure 1). As you descend into the depths of the game, you encounter other creatures, often more challenging to defeat and consume. Yet the game is explicitly designed to allow all types of players to find their own groove, their own "flow zone"; if the competition with other creatures is overwhelming at the lower depths, you can easily return to a more manageable level that matches your current skill. In theory, your choices during game play allow you to subtly adjust the challenges to your skill level so as better to keep the flow going.



Figure 1. Screenshot of my creature from *fLOW*, PlayStation 3 version (*thatgamecompany*, 2007).

[1.3] The game *WoW* is also designed a bit like *fLOW*, offering game choices that allow you to adjust your current skill level to the challenges encountered. For example, the quests that you choose to complete are color-coded according to the level of difficulty that you will likely encounter; in another example, players can seek out opportunities for player-versus-player encounters (often a more challenging aspect of the game), or they can stick to competing against computer-controlled characters. Indeed, *WoW* offers numerous game play features that allow individuals to find their own personalized flow zone, thus extending the appeal of the game to a wider audience.

[1.4] Yet beyond these similarities, one major difference between *WoW* and *fLOW* is that, in the case of the former, gamers have far more options for acting outside the game proper and expanding the "world" of *Warcraft*—from posting strategies on an online forum to writing an elaborate guide for how to quickly level your character, from forming a guild and producing an accompanying Web site to programming in the language of Lua to modify the *WoW* interface, creating useful add-ons that one can share with others. This type of fan extension falls under the rubric of participatory culture, where the consumers of old become the producers of new. Instead of simply consuming the world of *WoW*, the player participates in producing it or altering how

we encounter it. We might think of fan expansion as an overflow of the game proper, a kind of ultimate added-on challenge that players can choose to pursue.

[1.5] The possibilities inherent in participatory culture have recently spawned a significant amount of both academic and popular debate while the conclusions are still open to speculation and argument: Will such participation transform culture into a more open collaboration between mass media outlets and the producing public? Or will the force of capitalism exploit the productive energies of the populace for its own purposes and profit (Jenkins 2006a, 2006b)? Although I will not offer a solution to this complex question, I do want to briefly investigate participatory culture in the game community, focusing on how the experience of gaming potentially overflows into fan production, and how the forms of the games themselves feed into the forms of intrinsic motivation that drive participatory culture.

2. Mod culture

[2.1] In the gaming world, the question of participatory culture is often framed in terms of game modifications, or *mods*. A mod can be new artwork or character *skins* (custom graphics) that other players can download and use (a common practice with GT Interactive's *Unreal Tournament* [1999], a popular arena-based first-person-shooter [FPS] game where players compete against each other online). Other mods modify elements of a game to create useful new tools (for example, interface add-ons for WoW). Still others perform total conversions of a game, transforming it into an entirely new world (for example, the conversion of Valve's *Half-Life* [1998], a FPS based on a science fiction narrative, into *Counter-Strike* [2000], a tactical multiplayer game that pits a team of terrorists against a team of counterterrorists). Mods also can manipulate the game's code to disrupt the game play (for example, jodi.org, a net.art collective, created a number of unplayable mods of the early Apogee Software FPS *Wolfenstein 3D* [1992]). Although they are not necessarily mods proper, I might also mention fan games, which often port games to new platforms (for example, a two-dimensional, home-brew version of Valve's *Portal* [2007] for the Nintendo DS) or build on the narrative worlds of older games (for example, *The Silver Lining* by Phoenix Online Studios, a completely free, original game extending the defunct world of Sierra's *King's Quest* series [1984–1998]).

[2.2] The practice of fan modding is often analyzed as an unpaid activity that expands the content of a game, spreads its fan base, extends its profitable longevity in the market, and generally adds value to a product that a company then profits from. I think it is impossible to deny that fan-produced mods—with the possible exception of "art" mods that criticize the game they modify—create value for the parent companies whose games are being transformed. Such issues have been discussed in numerous

academic articles (de Peuter and Dyer-Witheford 2005; Kücklich 2005; Postigo 2003, 2007). Overall, fan-produced mods flow into the "content pool" (Postigo 2007:302) that emerges around and expands the original game; indeed, modding is (for the most part) free labor that ends up flowing into the surplus-value pools of the original game developers. For example, many of the add-ons produced for WoW provide significant resources to the player who uses them; they are vital aspects of the game produced for free by fans (figure 2). It is not unreasonable to state that without them WoW would have significantly fewer players and thus significantly less revenue.



Figure 2. Advanced Trade Skill Window add-on (created by the player Slarti on the realm EU-Blackhand). This mod is used to help increase profession skills in World of Warcraft (Blizzard Entertainment, 2004). [[View larger image.](#)]

[2.3] Many of the articles about game mods also contemplate the reasons why modders produce their works: for the fun of it, for reputation and ego boosts, for experience that might allow them to find employment within the gaming industry, for the connections and community that such productions offer, or for a form of artistic expression and sense of "owning" their work, which Postigo (2003) identifies as a potential form of nonalienated and enjoyable labor. Although clearly some modders are motivated by extrinsic rewards—especially those hoping to work within the game industry or hoping that their mod might eventually bring financial reward—it is often pointed out that many modders are motivated by deeper, intrinsic motivations. For example, Neil Rodrigues, a project manager for the company that created *The Silver Lining*, explains that volunteer workers find motivation in personal, internal sources: "[S]ince you're not getting paid to work, you must have an internal passion to enjoy what you do" (Skelton 2008). Modding games or creating fan games is thus a pleasurable labor of love. But what is the source of this pleasurable labor? Of this intrinsic motivation? What connections might it have to the gaming experience more generally? To unpack these questions, I return to the game *flow*.

3. *flow*

[3.1] If WoW (and its massive base of productive fans) stands as example of a macroscopic game where, invoking Tiziana Terranova's definition of free labor, the "consumption of culture is translated into productive activities that are pleurably embraced and at the same time often shamelessly exploited" (2000:36), *fIOW* is a small, microcosmic game that might have plenty of fans but offers extremely limited opportunities to expand its content pool. No, you can't mod *fIOW*. Yet *fIOW* is not just a game but a game created to embody a particular idea about game design. *fIOW* is a game *about* games. The theory that underlies the game stems from the work of Mihaly Csikszentmihalyi, a psychologist and sociologist who has written prolifically over the past 30 years about the "flow experience"—an experience that he identified in many activities, such as rock climbing, playing chess or basketball, performing surgery, or even having a good conversation (1975, 1990). For Csikszentmihalyi, the flow experience is an optimal experience where one is completely absorbed by an activity and experiences an affect of intense enjoyment—or, as some like to say, fun.

[3.2] Csikszentmihalyi studied the flow experience because for him it became the key to understanding the inner workings of intrinsic motivation and why people pursue certain activities for the sake of the activity itself. For example, why do rock climbers risk their lives in an activity that offers no monetary rewards? Why do people dedicate massive amounts of time to playing WoW? For Csikszentmihalyi, part of the answer lies within the nature of the activity itself. Throughout his career, he outlined and refined the basic properties that define flow-producing activities. For example, the activity should challenge us, but these challenges should be tuned to our current abilities. Moreover, the activity should allow for the development of skills, have clear goals and feedback, and perhaps cause us to lose track of how much time has passed.

[3.3] It is not difficult to see that these properties have a lot in common with the medium of video games. Indeed, early in his career Csikszentmihalyi wrote, "Games are obvious flow activities, and play is the flow experience *par excellence*" (1975:36–37). Thus, it is not surprising that today many video game designers draw upon Csikszentmihalyi's analysis of flow and play. Jenova Chen, one of the creators of *fIOW*, remarked that "most of today's video games deliberately include and leverage the... components of Flow" (2007:32).

[3.4] With the principles of flow refined, Csikszentmihalyi envisioned a society that would put these principles to use, a society in which all activities—even those traditionally thought of as work—would produce flow experiences. When our tasks and activities become more like games, he argued, life itself becomes more pleasurable and also more productive. Partly as a result of the rise of the video game medium, Csikszentmihalyi's vision is seemingly materializing, especially in the business world, where video games are being studied as models for organizing and managing labor in

order to increase worker productivity (an increase that is not necessarily accompanied by an increase in the size of the worker's paycheck). Even online games such as WoW have been investigated in this vein (Reeves et al. 2008). Indeed, methods for producing intrinsic motivation and sustaining it are gradually being channeled into the functioning of capitalism, just as they are being used to create games that sustain our interest in playing them.

4. Conclusion

[4.1] At some point while I worked at WoW and played at *fLOW*, it struck me that the intrinsic motivation reinforced by flow experiences during game play might harbor a complex connection to the unpaid labor of modding. Take WoW, for example. Interestingly, WoW entertains a peculiar relationship to labor: the repetitive, tedious tasks that players must undertake—to increase the level of their characters, collect resources such as gold, or find interesting and useful items—can take hundreds of hours of game play, play that increasingly strikes some gamers as work, especially those who have flowed through the process of leveling a character before. For these latter players, their skills after hundreds of hours of playing WoW far outweigh the challenges presented at the beginning of the game, so when they choose to start (or "roll") a new character, the possibilities for achieving flow experiences are reduced. The challenges at these lower levels are just not challenging anymore, and the process of leveling a new character can become boring and stale. For this reason, individuals and companies now exist that will do these tedious activities for you. For a real-world price, a player can purchase a character that someone else has labored to build. There are also illegal mods that will automate some of the tedious labor for you. Yes, while you work at your "real" job, a program running on your computer can work to collect gold for you in WoW.

[4.2] People pay for these services to bypass the time-consuming work necessary to unlock game content at higher levels, content that is often called the *endgame*—that is, the true *beginning* of the fun, as many fans claim. Yet the endgame for some players who seek new and higher challenges might ultimately become expanding WoW itself, perhaps by producing add-ons entirely of their own creation. As mentioned before, this expansion of the game might be the highest level that a player can achieve, the apogee of intrinsic motivation where the gamer moves to access other skills that he or she might have (such as writing, programming, or Web design) and to apply them through a transformation of the game (creating fanfic, a mod, or a dedicated fan site). Perhaps this is also a desire to extend the flow experience of a game: when the in-game challenges no longer match a player's skill level, or when the game has been mastered, the player might turn to other skills that he or she can

reinforce in relation to the game, which, in turn, transforms and enriches the game, potentially renewing the gamer's interest in playing.

[4.3] My point is a simple one: if the labor of modders is indeed driven by intrinsic motivations, by internal passions, one source of this motivation might stem from the playing of games themselves. It is not inconceivable that the intrinsic motivation to play games, reinforced by the design of the games themselves, overflows into the labor of modding. For example, if one of the principal results of "getting into the flow" while playing WoW (and *fIOW*, for that matter!) is the growth and expansion of one's character, is it inconceivable that this drive to expand one's character within the game overflows into the expansion of WoW itself through fan modification? When the expansion of one's character within the game meets its limit, does the intrinsic motivation that motivated playing the game bleed into the motivation that drives the free labor to expand and "grow" the game itself?

[4.4] Turning to games like *fIOW* and the work of thinkers such as Csikszentmihalyi will enrich our understanding of how intrinsic motivation is cultivated and how the forms of video games themselves are influencing new forms of labor and play in participatory culture. If we do not simply want to "go with the flow" as the forces of capitalism channel our enjoyment, our fun, our labors of love, and our intrinsic motivation into a profit stream for others, then we need to understand that video games are not just fun and games, that their methods for cultivating flow experiences and intrinsic motivation, while certainly enjoyable, are also transforming the world of work beyond the game.

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Symposium

Dungeons & Dragons: The gamers are revolting!

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[0.1] *Abstract*—The negative response by players to corporate changes to the rule systems governing *Dungeons & Dragons* suggests that tabletop RPGs have more in common with fan fiction than with computer games.

[0.2] *Keywords*—Anticopyright; D&D; Role-playing game; RPG

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1. Introduction

[1.1] An industrial rebellion is afoot in the role-playing game (RPG) scene. Traditionally, a tabletop RPG provides its players with a firm rules system within which they can construct their stories, but recent corporate changes to the fourth edition of the oldest and most popular system—*Dungeons & Dragons* (D&D)—have spawned a negative response so strong that players have actually begun to alter the game system against the wishes of its owners. Further, they have begun to publish these changes. In this essay, I will attempt to detail the development of this fan-created rebellion.

[1.2] By situating RPGs in the context of other fan activities, I also hope to show that tabletop RPGs have far more in common with fan fiction and other traditions of fannish creativity than the computer games they are so often associated with in the media. I suggest that game systems are for RPGs what show canon is for creative media fans. Where gamers play with and against the rules of their specific system, fic writers, fan artists, and vidders write, draw, and vid with and against the canon of their respective source texts. Considering that analogy, I believe that the rebellion occurring in the RPG industry may prove interesting in the context of wider fandom and its own negotiation of corporate ownership issues.

[1.3] I am a part of media fandom. For me, in my capacity as an online fan, that largely means LiveJournal and discussion forums focused on science fiction and

fantasy sagas told on larger and smaller screens and occasionally in print. I write stories, reviews, and critical pieces; I appropriate those visual images directly and try to bend them into new things with new sounds. I participate in a largely female creative economy based around a series of texts that we cannot directly affect in most cases, and that thus provide a static center point for our communities.

[1.4] I also play tabletop RPGs, more specifically D&D. Many people believe D&D to be a game of little depth, all about slaying goblins and grabbing loot. And while it had its roots in battle gaming and that remains a popular aspect of play, I can also honestly say that some of the most incredible, impossible, brilliant plot twists and character arcs I've ever witnessed have occurred at a gaming table. We've dealt with race, gender, sexuality, ethics, and religion, and the stories are *ours*. It's a profoundly joyful experience to feel in collaborative control of the stories that matter most to you.

2. Rule books and creativity

[2.1] The tradition of improvisational theater is an old one, but RPGs in their current format date to the early 1970s. They grew out of war gaming, when the players began to introduce more personalized character elements. While variations exist, a tabletop RPG generally involves a group of players and a single games master (or dungeon master or story teller, often abbreviated to GM, DM, ST, and so on). The players each control a single character represented by a series of statistics, while the GM describes the environment, controls nonplayer characters, introduces new plot elements, and arbitrates how the world responds to the players' actions. Most interactions are represented through dice rolls, which are modified by the players' statistics to represent strengths and weaknesses within the characters. The GM is usually responsible for the underlying plot, and the players are responsible for their characters' behavior and can, and frequently will, head off in directions the GM never anticipated.

[2.2] The story is a collaborative development on the part of the GM and players, independent of the underlying game structures, except insofar as they add a random element to the resolution of a player's chosen action. However, these mechanical systems affect the flavor of a game, thereby affecting the choices made by players and ultimately the narrative of the game itself. While theoretically any game can be played with any system, a system that offers complex rules for resolving combat while almost ignoring social interactions will influence the game in the direction of combat, while a system that offers a wider palette of social skills for a character will encourage more socially adept characters. The choice of system is often considered integral to the flavor of the game, and game designers are aware of this and try to match the system with the style of gaming their company wants to promote. By the late 1980s and early

1990s, games such as *Ars Magica* and *Vampire: The Masquerade* began to emphasize characterization and story above the war gaming aspect of the combat-heavy hobby. Randomly determined statistics for characters became less popular, replaced by point-buy systems that allow the player to customize the character's strengths and weaknesses, as well as systems of buying positive character traits or taking on negative character traits for more points to spend on statistics.

[2.3] These game systems are probably the closest thing the RPG scene has to what the fan fiction and vidding community calls canon. While house rules exist, most gaming groups essentially use the published rules system, and the rules system creates a common point of reference between groups, much as the canon of a TV show creates a common point of reference within the fandom of the TV show. In both fandoms, the fan is engaged in a negotiation with canon while attempting to bend it to the narratives that interest the fan. Most of the online RPG scene is heavily skewed toward rules discussion rather than the events of personal games, which will not necessarily hold much interest for members of a different gaming group. An inappropriate rules system will make it more difficult to tell certain kinds of stories, just as the canon of a police procedural might make it more difficult to tell a supernatural horror story.

3. Changing the systems

[3.1] The 1990s saw a decline in role playing's commercial success. Competing with new card games such as *Magic: The Gathering* and with the advent of computer RPGs—which required neither a GM to invent a plot nor an entire group of people able to meet for several hours at a time—was not easy. Eventually, the company that owned *Dungeons & Dragons* was in such severe financial difficulty it was sold to Wizards of the Coast, which was in turn bought by Hasbro. As they struggled to compete against the increasing popularity and social acceptance of computer games, card games, and (ironically) war games such as *Warhammer*, Wizards of the Coast did something radical. They relaunched *Dungeons & Dragons* in 2000 with a brand-new mechanical system and an open license. With easy and minor modifications, anyone was allowed to use this system to publish their own RPG.

[3.2] Freed from the necessity of inventing their own mathematically sound system, and able to use the best-known and most popular mechanical system on the market, so-called third-party publishers sprang into existence at an astounding rate. The convergence of the open license and the burgeoning print-on-demand industry meant that people could, and did, launch game companies from their basements. A lot died out, some became very successful, and a previously ailing brand skyrocketed to superstar status within the RPG industry.

[3.3] But it didn't last long. Perhaps threatened by the upsurge in competition, Hasbro and Wizards of the Coast attempted to recall the open license and revoke the rights of third-party publishers, and supporters of the open license were fired en masse. When they found that the license could not be revoked, they began work on a new edition of D&D that would not fall under the open license. They banked on the brand name's popularity forcing the industry to comply with their new standard and created an almost unusably restrictive "game system license" allowing minimal third-party support for their new edition.

[3.4] Attempting to continue the industry's growth beyond a supportable level, Hasbro and Wizards of the Coast courted war gamers and online gamers, changing the nature of the game. Conceptually, the most recent (fourth) edition resembles online games such as *World of Warcraft* much more strongly than previously. A player's role in the party is now controlled much more strictly than it was in previous editions. Noncombat mechanics and spells have been marginalized or removed entirely, and there was a move away from a generic fantasy world to a more specific setting limiting the types of cultures one may use. One of the most financially successful ventures tied to *Dungeons & Dragons* is the launch of the miniatures line for optional use in diagramming in-game battles. The new edition of D&D now requires the use of miniatures, turning it into a partial war game.

[3.5] These changes directly affect the style of play and the stories told in a RPG. Even if this was not Wizards' express intention, their attempts to stifle competition, kill the previous edition, and homogenize third-party support in order to elevate the new edition had the net effect of pressuring their customers into a very specific, combat-based style of play. It is perhaps comparable to the vidding community's situation, where a leading editing suite has tried to create a monopoly while simultaneously removing support for any audio or video clips not bought from its own restrictive catalog composed entirely of action movies and pop music.

4. Open-source rebellion

[4.1] Many publishers were at first forced to fall into line with Wizards of the Coast's new edition because of the economic power of the *Dungeons & Dragons* brand. But Wizards' attempts to exercise control over its sprawling morass of independent publishers were so restrictive that following them began to look as financially untenable as continuing to publish source books for a dead game under the open license.

[4.2] With dwindling options, Paizo Publishing—previously publisher of the official D&D magazines—made its own radical decision. On March 18, 2008, Paizo announced

that it would be creating its own open-license game, *Pathfinder*, which it hoped other games companies would support under the open license. Effectively, Paizo decided to release "*Dungeons & Dragons: The Paizo Remaster*." The game will be in open play testing (the largest project of its type) until August 2009, when the final hardback rule book will be released. The beta version was released as a free download or as a paperback print edition sold for the cost of printing it. Although it was available for free, the paperback beta sold far beyond anyone's expectations—it sold out in the first 3 months of its release. The free download is still available.

[4.3] Another reasonably well-known company—KenzerCo, which is responsible for the popular RPG-based comic *Knights of the Dinner Table*—have begun publishing support material for the fourth edition without committing to the game system license. They do not use any copyrighted words or phrases and instead reduce most aspects of the game rules to mechanical formulas, which cannot be copyrighted, following a precedent set by a game system known as OSRIC (Old School Reference and Index Compilation), which is a copyright-free version of early D&D games systems (before the open-license relaunch). This marks a change from industrial rebellion to an outright fight against corporate copyright—an attempt to force an open sourcing of the system against the will of the copyright holder. It has been several months, and of this writing, no legal action has been taken.

[4.4] There is no question that with its powerful brand and widespread marketing, the fourth edition will remain a top seller, but it seems possible that instead of forcing a new industry-wide standard, Wizards have splintered their once monolithic influence and created their own competition.

[4.5] The publishers' rebellion in the RPG industry is also a fan rebellion. The third-party publishers are often very small, and even the ones that are large enough to employ full-time staff often had their roots as basement projects and weekend jobs that were born out of love of the game rather than a guaranteed way to make money. The third-party publishers are often run by fans, for fans, and they listen to the fans. They have to, because they have such a tiny market.

5. RPGs and fan fiction

[5.1] Tabletop RPGs usually get grouped with other computer games, whether they be massively multiplayer online RPGs or even first-person shooter games. Anyone who's ever listened to the storytelling that accompanies a gaming session, however, realizes that the narrative impulse is much closer to that exhibited in fan fiction. Rather than following the large but ultimately limited set of parameters of a computer program, tabletop RPGs are only limited by the imagination of their players.

[5.2] The chief difference I see between RPGs and online fans' storytelling is that the RPG industry relies on fan creativity. RPG fans do not have canonical unchanging texts around which to base our communities; we have canonical unchanging game systems. These games traditionally have a strong focus on characterization and narrative development, but the deemphasis of these issues, and the attempts to exert increasingly strict corporate control over the type of games that can be played, have led to a fascinating picture of fan power, economic protest against the concept of corporate ownership, and protests against the idea of controlling the methods through which we creatively express ourselves. If we view fan fiction as an attempt to wrest away some form of creative control over beloved characters and a way of providing ongoing development that a fan may perceive as lacking in the show's canon, then the motivations in both situations strike me as remarkably similar. But the wider legal context of these activities is not, and this has led to a fairly unique situation.

[5.3] Because canon is divorced from narrative in the RPG industry, and because the gamers are invested in stories that belong to them and are simply using others' systems to express those stories, gamers are in the unique position of being able to jump ship if they are dissatisfied. It's not an option that is available to most fans. If a television show stops delivering the kinds of stories a fan is interested in, that fan can certainly jump ship and start watching a new show, but that fan won't find the previous show's characters or the world of the previous show on the new show. Jumping ship requires saying good-bye.

[5.4] Even though I see RPGs under the same umbrella of fan activity as fan fiction and vidding, I do wonder whether the large differences in their relationship with canon and the law make comparisons impossible. Certainly I have trouble imagining an open-sourced canon existing for a television show, if only because a definitive narrative that fandom can watch and discuss together seems like an integral part of the appeal. Organizationally, I think fandom's collaborative nature closely resembles the collaborative storytelling of a gaming group, even if the end result is a series of interrelated yet individual fan works instead of a single group-told story.

6. Conclusion

[6.1] But if I am less literal in my search for comparisons, I think that mainstream fandom may already be waging its own radical war against corporate control. The emerging arguments of fair use and academic relevance (many in this very journal); the increasing social acceptance of fan fiction and music videos; the sea change at the networks to program *for* the Internet literate, to provide streaming episodes and Webisodes and online comics, and to encourage the existence of fandom, are all

evidence that it is possible to fight for greater control over the way we receive and interact with our stories of choice.

[6.2] RPG fandom is not the only one waging an anticorporate war, even if it is the only one that got handed a large supply of open-sourced bullets.

7. Further reading

Editions of *Dungeons & Dragons*

(http://en.wikipedia.org/wiki/Editions_of_Dungeons_%26_Dragons)—A detailed account of *Dungeons & Dragons*'s history, including a list of changes between editions.

EnWorld Forum (<http://www.enworld.org/forum/4173113-post99.html>, <http://www.enworld.org/forum/4172689-post39.html>, <http://www.enworld.org/forum/4172942-post51.html>)—Posts on the EnWorld Forums from D&D brand manager Scott Rouse, former public relations employee Linæ Foster, and Necromancer Games owner Clark Peterson, detailing Wizard's prevention of companies supporting D&D's fourth edition and open-license games simultaneously.

Gen Con 2007 in a Nutshell (<http://games.slashdot.org/article.pl?sid=07/08/22/1847207>)—Article about Gen Con 2007, where D&D's fourth edition was announced, including the author's perception of the anger surrounding its release and a reassurance that Wizards would continue to support the Open Game License, which later proved false.

Open game definitions: Frequently asked questions, version 2.0

(<http://www.wizards.com/default.asp?x=d20/oglfaq/20040123d>)—Official open-license FAQ.

Symposium

An examination of living through enjoyment: Live-action role-play

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[0.1] *Abstract*—Many in the gaming community argue that video gaming has enhanced the RPG experience, allowing for increasingly immersive experiences for players. The live-action aspects of LARPing anticipated the movement toward virtual play that video games have worked to create.

[0.2] *Keywords*—LARP; Role-playing

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<http://dx.doi.org/10.3983/twc.2009.0089>.

[1] The woods are warm tonight in Mississippi, and I have bite marks on top of bite marks from the mosquitoes. My group has assembled for the final hours of a 3-day campaign in "Call of Cthulhu," a nihilistic horror game set in the 1920s and steeped in the arcane. We look scruffy, in T-shirts and wifebeaters, wearing sandals or barefoot. The landscape is scattered with lawn chairs and discarded Coke cans.

[2] For our characters, things are rather different. A chilling wind cuts across us as we stand at the top of a bluff overlooking a small town just a few miles outside the luxurious winter retreat where select faculty and graduate students of Miskatonic University have assembled for a holiday. Wool and fur and leather do little to warm us; we've been out here too long and the fact that nothing stirs at the bottom of the hill, nothing wanders in the town in the standard way, is enough to freeze the blood in our veins. In just 3 days, the quaint little place has become a ghost town—worse, actually, because we have seen the frostbitten come to our door, black and cold and unaware of their condition, too far gone to save. Something has happened here.

[3] As a player, I know what has happened. Well, not exactly. I don't know which great elder god has been unleashed to destroy our party. I do know that I'm playing Call of Cthulhu, and quite often campaigns end badly; characters die, towns are destroyed, evil is unleashed...that sort of thing.

[4] My character, Edmund, knows nothing about it. It's his lodge the characters are at, and if he is unhappy to be tramping about in the snow, it has more to do with the warm brandy and cozy armchairs back home than with fear of the dark unknown. He is here because he has to be. It's his home, these are his guests, and the people down there have been attached to his family, in the form of retainers and otherwise, for some time.

[5] I know what is down there. The townspeople have become monstrous. People running naked in the snow, forfeiting skin and muscle and tendon in their frantic whim, still moving on bone, stilts that keep them inexplicably upright, their bodies somehow alive in a terrible ecstasy that propels them through the snow in search of...well, that part I don't know yet. I do know that when my group goes into this area of the game, we will set off the final events of the campaign. I also know that my character will probably die. He's an idiot, a skeptic, and a dilettante. Practically speaking, this means he doesn't know what is going on, and he won't believe it when he does see it. His skill with a hunting rifle is more perfunctory than not. But as a player, I have to let my character do what he is going to do. After all, that's part of the fun.

[6] So Edmund does the worst possible thing. He musters up his voice and he calls down, "Hello?" This triggers several events. The packhorse startles forward just a foot. The guide, who had so carefully explained to us the importance of watching where you step in the snow, moves forward to take the reins. A look of alarm and then, swiftly, resignation comes over him as the snowbank shifts and breaks and takes him down to the bottom, a broken doll. Down in the village, something moves.

[7] In game play, we pantomime. I say, "Hello." The game leader explains that when the player to my right stepped forward, he shifted the snow, so the player hurls himself forward a few feet and crumples, and someone throws a rock into the woods to make noise so we can say "Look over there" with a reason. Someone asks how many supplies our characters lost with the guide. We start figuring out who among our group has characters that can shoot guns with any accuracy.

[8] In a role-playing game (RPG), characters assume fictional personas and enact previously determined behaviors. The more common forms of role-play include sexual play, interactive gaming, and computer and video game system gaming. For each, there are specific and distinctive aspects that uniquely identify them as separate, though all fall under a general umbrella of gaming in character (IC). That is, players create or utilize previously rendered personas in play.

[9] Live-action role-play (LARP) is a particular type of interactive role-playing in which players perform the actions of their characters in a physical setting, physically interacting with the other players to a greater or lesser degree, rather than interacting through mere verbal discourse or electronic interface. Falk and Davenport (2004:127) argue that "These post-desktop games inhabit our physical surrounding and objects within it, employing human senses" and that they "take on ubiquitous and tangible forms—properties that contribute to the blurring of the lines between player and game character, game world and real world." Thus,LARPs offer more immersive experiences for the players than standard RPGs because LARPing communities enable realistic interactive socialization.

[10] In everyday society, people must act based on the explicit and implied manifold nuances of the layperson and the skilled worker, the parent and child, the citizen or soldier, and so on. We are taught that action in society is best enacted by feigning the appropriate knowledge, attitudes, and roles. The general notion is that via practice, people will eventually produce the actual. Just as people attempt random simulations of inferior quality while learning to play an instrument, so too will they playact until they learn to *be*.

[11] In life, socializing practices are learned by cues, many visual, situational, and theoretical. The practical application of socializing is engaged, however, not by memorizing rules or by attempting to reiterate the rhetoric attached to them—rhetoric steeped in the rich cultural traditions of religion and culture—but by acting. The term *acting* brings to mind a twofold usage—that is, to act as a state of doing something and to act as a state of feigning some other thing. In "The Impact of Relationships on Games," Gordon Olmstead Dean (2007:195) acknowledges, "The principal antecedent of larp is certainly drama." He adds, "It has been posited that larp is essentially interactive theatre—a form of drama where there is no distinction between presenter and audience." However, he very firmly advocates that the players "do not just watch, we are drawn into the drama in a very literal sense."

[12] This is because, as shown in the example of a gaming night, the players interact with each other in a very real sense. Both standard RPG and LARP stories branch out on the basis of decisions made not in all times and places by the individuals but by the myriad players working on their own agendas, some forming groups and alliances, some conspiring under cloak and with dagger, others unknowing puppets of the game master's (GM) vision. Seasoned players are able to understand the rules and conform to the restrictions of the world in which the game occurs, of the game, of the group, and of their own roles in each. The players are not the characters; they are actors fulfilling their roles. Thus, the needs of the players may be in conflict with the needs of the characters, but the needs of either are secondary to the needs of the game.

Players play for various reasons. In the games, characters must have reasons for acting. The reasons for the player playing and the character acting are not the same. For example, a Civil War reenactor, or someone playing an alternate history version of the Civil War, may play with full knowledge that a character is going to fail in his or her mission. The player understands this, but the character would not. The player must then play IC to the hilt, pursuing the unattainable goal with a will, in spite of his or her knowledge out of character (OOC).

[13] In such games, players choose characters on the basis of types (and types may be based on species, race, gender, class, tribe, or similarly pertinent signifiers). Just so, the world-building devices are based on generic concepts (whether the world is based in fantasy or horror, whether the setting is the present day or the Dark Ages, the 1920s or the far-flung future). In addition, players select a variety of general attributes to define their characters, including, but not limited to, height, weight, sexuality, education, speed, stamina, and charisma. They also specifically select defining criteria compatible with backstories preset or created by players. These feature strengths and weaknesses related to who their characters are. For example, a barbarian swordsman (like those traditionally found in the game *Dungeons & Dragons*) tends to focus on physical, martial exercises. Extensive academic education is not a probable character attribute for such an entity. Additionally, a character accustomed to utilizing brute strength as a problem-solving tactic may be brash or bullying. On the other hand, a hideously deformed and physically limited character (like the Nosferatu in the *World of Darkness* games) relies on stealth, manipulation, and strategic mental maneuvering to achieve his or her goals. Diplomacy would be a virtue in such a case, but such a character would rarely be a prominent social figure.

[14] For LARPs, these ideas hold true as they hold true in RPGs. In addition, though, there are sensory layers available within the game mechanics in LARPs that are not available in video games, across tabletops, or on the written page. For example, touch is often a component to a greater or lesser degree. In some instances, players may act out their characters' impulses by indicating physical affection, wrath, or other feelings through symbolic or actual touch. That is, characters may actually touch in a realistic manner, hugging each other, striking each other (lightly), or pushing and pulling at each other. The player's level of comfort may impact the game play here. For example, when I am playing *Vampire* with strangers, players may demonstrate physical connectedness by simply holding someone's hand or standing close. Physical proximity will serve to indicate physical relationships. With long-term gaming groups, however, players may feel able to act more literally. For example, people may hang on each other. The dynamics are rather simple. Game intentions are discussed OOC, generally at the beginning of games, before they are acted out IC. The games tend to be more fun in these instances because players feel more comfortable, which allows

them to get into their character. In some games, battles may be staged and peace-bonded weapons (created or altered to prevent any real harm) may be utilized. In other instances, symbols are used to indicate touch. For example, small beanbags may be thrown in a player's general direction to indicate the damaging assault of magic, bullets, or arrows. In other cases, damage may be indicated through strips of paper lost as one is injured in the course of a game. Certain games utilize "rock, paper, scissors" or similar methods to determine the effect of attack, defense, and similar actions.

[15] In a standard RPG, the details of the settings are explained verbally or they are sketched in a blueprint form (the classic graph paper dungeon comes to mind). The most basic LARP offers a more tactile, 3-D experience, and more advanced setups go even further. In a real setting, players may experience visual stimulation. Some LARPers carefully design massive and detailed play areas. They may build wooden or cardboard structures to represent the game world. Some draw chalk outlines and boundaries to roughly detail the landscape. Others may use very little in the way of stages, costumes, and related materials. Some play in the public sphere, which can lead to a variety of interesting consequences. For example, in the *World of Darkness* games, vampires live in secret among humans. Some LARPers will play in public and will be penalized for attracting the humans to the game. In this scenario, all and sundry become nonplayer characters.

[16] In every instance, the narrative is just as relevant as it is in the standard RPG. However, facial expressions, tones, and cues aid in the overall effect to a larger degree in a LARP. IC, everything a player says, does, or depicts is attributed to the character being played. Therefore, subtle changes in voice or posture offer cues that the other players are expected to analyze and act upon. It is vital that players announce intentions to go OOC. In one game, a player may decide that her character has a nervous tic that becomes evident when it loses composure. In another, a character may have a habit at leering at women in a sinister and inappropriate manner. How the players react should reflect how their characters would react. Certainly the players should not be offended by what the characters do or say, and the characters should only react in ways befitting their characters. On the basis of the latter scenario, if a female character is naive, she may miss obvious insinuations. If she is lascivious, she may embrace them. If she is aware of them but unappreciative, she may respond accordingly. Similarly, the smallest of physical actions may have larger consequences. Kicking an idle stone in real time could create an avalanche in game time. Stepping on the smallest twig may attract undesired attention. Coughing at the inappropriate moment may condemn a character to a harsh fate. In standard RPGs, the actions of the characters are painted with broader strokes. In LARPs, a player's activities become

the character's movements. The game takes on a sharper focus and is infinitely more realistic.

[17] In fact, interactive game play simulates life—not the everyday, probable world, but the archetypical one. Common gaming genres include military strategy or historical reenactment (such as the Colonial Living History Alliance), fantasy and science fiction (such as live-action *Dungeons & Dragons* or *Star Wars*), and gothic and horror (such as *World of Darkness* and *Call of Cthulhu*). Within each, one is expected to play roles, to conform to fixed rules (made by the GM, by the rule book, by the conventions of the players, and by the players' development of their characters) that define landscapes as surely as gravity, to adapt to a story as it unfolds and to change the story to alter or even redefine entirely the fate or the individual characters, the group, or the world (if one is clever enough) and to conform to the rigid certainties and absolutes of the plot devices.

[18] It has been argued by many in the gaming community that video gaming has enhanced the RPG experience. Certainly, with each successive generation and video game system, the technology has allowed for an ever more immersive experience. From movies like *Tron*, *Lawnmower Man*, and *War Games* to cyberpunk games like *Chill*, players have imagined the future of gaming to be one of sensory appeal. The classic image of this is a person wearing a full body suit complete with a visor that allows total fixation on simulated reality. It is true that video games have come a long way; I felt validated when, the first time I picked up my Wii remote to play *Metroid*, I took the controller in hand, thrust it forward, and turned it sharply to open a door in the game. The only thing closer to opening a door...would be opening a door. That, in fact, is the point of LARPing. The live-action aspect of a LARP allows players to open and close such doors in real life through a virtual, socially interactive game played in real time in a physical setting. Thus, LARPing anticipated the movement toward virtual play that video games have worked to create. At this point, the LARP surpasses video games by offering a more realistic, alternative form of role-play.

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Symposium

The birth of a community, the death of the win: Player production of the *Middle-earth Collectible Card Game*

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[0.1] *Abstract*—Collectible card games (CCGs) are at the midpoint of the spectrum of gameplaying: half game, half story. An examination of a CCG based on Tolkien's *Middle-earth* illustrates the ways in which fans of the story have changed the game, especially in removing the focus on winning.

[0.2] *Keywords*—Audience analysis; CCG; Fan community; MECCG; J. R. R. Tolkien

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1. Introduction: Breaking the rules of the game

[1.1] It is easy to think of tabletop games as boxes. They appear as boxes when they are play tested by companies, then mass-produced for toy store shelves, their sides bursting with commissioned art, fantastic descriptions, and clever rules sets. But what happens to the game inside the box when the company that made the box is gone?

[1.2] As the four-time North American champion of the *Middle-earth Collectible Card Game*, and one of the lead members of the players committee that has maintained the game since the demise of its parent company, I am responsible for helping to manage rules discussions, publish fan newsletters, and organize tournaments in dozens of countries throughout "real-earth." I have seen the impact of the fan gaming community on keeping a game alive—how even the way the game itself is played changes once the box is ripped off and never put back on.

2. Collectible card games and the Tolkien fan community

[2.1] In August 1993, Wizards of the Coast published the first collectible card game, called *Magic: The Gathering*. It was no ordinary playing card game, but rather an altogether new game medium dubbed the customizable card game, trading card game, or collectible card game (CCG). Soon CCG after CCG started coming out, and

"everything changed; all of a sudden these games were no longer a small niche for the serious gamer with lots of time on their hands, but something you could play with relatively normal people" (Farrell n.d.). Following suit in December 1995, Iron Crown Enterprises created the *Middle-earth Collectible Card Game* (MECCG), which, unlike *Magic's* "generic medieval" universe, translated the specific literary world of J. R. R. Tolkien's Middle-earth, including *The Hobbit*, the Lord of the Rings book series, and the *Unfinished Tales*, into an exploration and acquisition-based strategy game. In roughly hundred-card expansion sets intermittently released over 4 years, 1,700 cards were designed, and given drawings and game text in over eight languages. Similar to miniatures war games, players could select from this vast card inventory to tailor a 60-card deck to use in competition against other players' decks in matches lasting 1 to 2 hours. Iron Crown's MECCG won the Best CCG of 1995 Origins Award and was regarded as a work of art in games by many players. Chris Farrell has given it the impressive "third greatest game of all time" rank on boardgamegeek.com (note 1). In other words, the fans loved it.

[2.2] However, disaster soon struck. In 1999, Iron Crown Enterprises ran into financial troubles, lost the game license from the Tolkien estate, and ceased production and support. Hundreds of players, faced with the loss of organized play and prizes, abandoned the game. This should have been the death knell that marked the end of MECCG. But it wasn't: from all over the world, fans came out of the woodwork to save their work of art. In so doing, they used the now-traditional means applied to dead hobbies to keep the game alive, such as online discussion forums, but even more interestingly, they also used some untraditional ones.

[2.3] But first, just what kind of fans are we talking about? MECCG appealed primarily to readers of Tolkien, many of whom, because of the game's unusually complex strategy, as well as the painstaking care that went into translating Tolkien's fantasy trilogy into card game terms and matching artwork, were mature, adoring fans between the ages of 30 and 50. An example of such artwork would be the fiery anthromorphization of a godlike female sky spirit closing the "Doors of Night" (figure 1). This card, played to enhance creature and environment strategies in the game, represents the danger of nighttime in Tolkien's stories. In his article on MECCG collecting, Wolfgang Penetsdorfer commented on this community of dilettantes: "The typical MECCG player is not only enjoying the game but is also a collector of the wonderful cards. Thanks to the great artwork its [sic] really a wonderful feeling sitting at home in front of a fireplace, taking the binder and looking at Cirdan thinking 'Ah, yes! That's exactly how an old and wise Elf should look like.' As a fan of Tolkien's stories I loved it to finally get a face to some of the characters" (Penetsdorfer 2006:14–15). Many of these older fan players, whose later efforts would change the

entire culture of the game, had never participated in a gaming or tournament community before. Now, for love of Tolkien, they were doing so.



Figure 1. *The Doors of Night card from the Middle-earth Collectible Card Game by Iron Crown Enterprises. [View larger image.]*

[2.4] The enjoyment of the older fans was also due to the uniqueness of the collectible card game format, a format that allowed MECCG to pull from both the "abstract gamer" and "story gamer" types. Imagine a spectrum that measures to what degree a game is purely representational and to what degree it is a story. An abstract game like *Go* would be on the far left (at 1) of this spectrum, and a role-playing game like *Dungeons & Dragons* would be on the far right (at 9). In this spectrum, CCGs would score a perfect 5: half game, half story.

[2.5] These older "story fans" were probably not as interested in their CCG's gamelike elements, such as the directly competitive two-player style. This head-to-head style is less present in the cooperative party atmosphere of role-playing story games, and a CCG's rigid rules adherence is unlike the looseness of RPG "guidelines." (A Tolkien RPG was available at the time; however, like all RPGs, it required a time commitment beyond what "normal" people had available.) Moreover, even the story aspect of CCGs must have felt oddly gamelike to these fans, since players inhabit preexisting storybook worlds with named towns, monsters, and other elements, and cannot create new characters from outside the original tale. These limitations

eventually led RPG players to dismiss CCGs as less imaginative because the cards were like premade stories. Yet story fans and other types (players who love game elements or a little bit of both game and story) enjoy CCGs for precisely those reasons: the cards function as storyboards that give a rules-based grammar to work with, making the CCG feel more like a controlled adventure game than a boundless role-playing module.

[2.6] Also, the delights of story immersion—the only quality that can lead to gamer identification—are not completely lost in CCGs, as they are in *Go* or chess (yes, even playing with a *Simpsons* chess set). Though CCG cards are premade, players have the power to edit their own unique deck of 60 cards, a process that can be compared to writing one's own dramatic television script for an established series. The whole business of playing a CCG can feel quite personal: Will your party of anachronistic Balin-led dwarves leave a defeated Balrog behind in Moria to roam Dragon Country? Will Aragorn, rather than Frodo, use force of arms to destroy the One Ring?

3. Life after licensing: Player production

[3.1] I believe it is this flexible quality of self-identification in the fans, combined with new coteries of casual players, that kept interest in MECCG going after the other main reason for playing vanished: tournament-level competition. Though tournaments continued to be maintained by the players committee, they had nowhere near the level of support as when a whole business stood behind the effort, with paid employees running regular monthly tournaments and awarding loot in the form of card sets and foreign trips. The greater tournament scene died, and those who were in it only for the scene left. In other words, MECCG became less of a tournament game and more of a casual game, something to be pulled out of the closet after eating Chinese food or pizza with friends. Ironically, MECCG was now fulfilling more of its promised CCG qualities of being played with "relatively normal people," rather than "serious gamers."

[3.2] Given the increase in normal people playing the game, the fan player community realized that new methods for game tournaments and gatherings must be created. One of the first inventions was free online software that allowed anyone to play, but online play wasn't enough. The mature players clamored for face-to-face social interaction, not the watered-down sterility of online gaming.

[3.3] The player community organizers slowly adapted, taking different approaches to the tournaments, such as focusing on beginner-level events where cards were often provided. A massive MECCG annual gaming convention in Germany was organized, called "Lure of Middle-earth," which often drew over a hundred players from around the world. Players could participate in low-stakes events with few or no prizes, play

unofficial fan variants and pickup games, or just spectate and join in the after-party drinking binges. In contrast, the national-level qualifier and finals tournaments in every country, most notably in the United States, where Iron Crown Enterprises was based, plummeted in attendance; even the annual world-level tournament decreased in size. In light of these depressing figures, I recently wrote a letter recommending that the world tournament be scrapped and replaced with informal MECCG play and sightseeing events because too many players have reported not wanting to sign up for events where they would just get pummeled—they simply want to have a good time. The fans had spoken out to their democratically elected fan leaders.

[3.4] Additionally, the more committed player fans began to actively reconstruct the pieces and rules of the game to meet their avid fan needs. There is now a committee to create more "virtual cards" for the game online (see <http://www.councilofelrond.org/index.php?id=11#Virtual%20Cards>), though such cards could never be physically printed for copyright reasons. Nicolai Willinek, for example, spent years inventing more than 500 dream cards because he believed there were still parts of Tolkien's story begging to be represented in the game. He wrote, "If it had been left to the die-hard dream-card fan community, [the never-made card] 'Theodred' would have had his chance while ICE [Iron Crown Enterprises] was still around. Sadly though, as ICE had their licence [sic] for Middleearth stolen from their hands, it is left upon us to further this game in a matter that fits most" (Willinek 2007:17–18). Now these new cards are enjoyed by many players, all for free, and all thanks to the dedication of players like Nicolai.

[3.5] In a surprising twist, many players, though they love the game's community, rarely enjoy playing the game anymore. Instead, they concentrate on collecting the cards, talking about the cards in newsletters, or inventing their own card concepts, which they see as having a greater creative thrill than merely playing the game. Needless to say, if the company were still making the game, the fan producers of these new cards and casual scenarios would not have such an eager audience. Loss of the company has resulted in greater control of the game by its fans.

4. The death of the win

[4.1] The change that I consider most profound of all, however, is that the goal of playing has altered. Without corporate production, the pool of players and the arenas for playing have shrunk to the point that competitive players are forced to consider quality of opponent. Whether they enter a real tournament or one of the new low-stakes side events, they are likely to be matched up with someone who is *not* concerned with winning.

[4.2] In consequence, it is becoming more and more obvious to the fans that the win should be removed as the focus of games. Competitive players also were discovering something else disturbing: a few fans did not view their victories as important but only incidental. These players, myself included, needed to find new reasons to keep playing.

[4.3] This seismic shift in the community calls attention to an overlooked aspect of games: what does it mean to "win," anyway? This question, which should be equally troubling to any fan who enjoys watching tournament-level sports, has made me think about what a win means in any game I pick up and play. For example, I've never confused my living room victories in the game of *Diplomacy* over my six friends (who are really just waiting for me to break out the chocolate cake so they can go home) with national-level competition, but it has always given me a thrill to outperform them. Should it?

[4.4] Sometimes winning is due to the quality of the opponent, sometimes it's skill, and sometimes it's just dumb luck. But in most cases where I've played games, winning felt personal. Sometimes I've played superbly, by which I mean the platonic ideal of a perfect game, but I've still ended up losing the match, which made me feel bad about the whole experience. The win, like a test score, is a difficult-to-reject assessment of self-worth.

[4.5] What does a win mean in a small tournament field like the field of casual gaming? I am going to offer a strange answer to that question: it means anything you like. Such an answer can work, can even be quite profound, because the answer doesn't work at all—it offers no easy validation—unless every winner individually assesses himself or herself on the skill components desired to be tested. This is what happened to me on an unconscious level. When I no longer had regular tournaments to look forward to but only friendly gaming evenings, I realized that I was taking on rather odd player mannerisms, such as handicapping myself (by stopping myself from making crushing plays), taking the time to compliment my opponent's successes, and not minding if I lost—a shocking idea to some, but old hat to the casual player who is just having fun. Of course, I still experienced a competitive feeling of self-critique that made me want to improve my skills next time, but the locus of this feeling had changed: I was competing against myself, against my own ideas of what a good player should be. Needless to say, taking the game's outcome less personally made me not only a better player in the long run, but a much nicer one to boot. Also obvious to me now was something I should have long known. This is how the average, noncompetitive person already plays games.

5. A better playing experience

[5.1] After the death of my competitive side, it did not take long for me to come to a final, balmy realization: casual gaming should have as its end goal the creation of better playing experiences. This is especially imperative in a game community where players are leaving in droves, fed up with the competitive atmosphere that a game's marketing company has created. The loss of a game's company can also be a strength. The players who remain are loyal, and so loving that they count it a blessing if they can play a game they adore in the 3-hour-a-week leftovers after work, family, and a semblance of a social life. In the case of MECCG, the fan community is no longer limited by the binaries of winner/loser play that the parent company naturally supported or by the pumped-out product that was sometimes a bit too hasty and imperfect as a result of a capitalist survival plan of making money. We fans are just beginning to realize how much power we have to reform the game exactly the way we want it—more relaxed and more fun.

[5.2] Whether they are using individual house rules or online forum variants, fan gaming communities operate the same way that fan fiction extends literature or film: fans take control of the material, play with it, and own it in new ways. But rather than using the techniques of fiction writing, gamers use the techniques of game creation. Such communities seem a natural extension of what James Gee (2007), who has written extensively about the learning principles any good game will utilize, calls player "production" of the game, the process that players use to create their own scenarios, rules, and game modifications. Gee demonstrates how player production is one of the most important tools for learning and game enjoyment; I am certain the fans would agree.

[5.3] Speaking of fans as producers, a friend of mine recently argued that massively multiplayer online role-playing games (MMORPGs) like *Dark Age of Camelot*, no matter how well crafted, will only succeed in the long run if the designers allow more player input into the games' direction, including letting the players create their own modules. Perhaps game companies can tap this pool of creativity more by constructing an original game engine to place in the fans' hands, then backing off and seeing where the fans run with it. (*Neverwinter Nights* comes to mind, as do open-source operating systems.) Many companies already see the power of employing fans and are using beta testers who are fans and tournament organizers who are fans. They have realized that fans are the most committed (and cheapest!) workers of all. Fans reshape and perfect their games, not just out of fandom sentiment but because they are the producers too; and in their own way, regardless of the presence of the parent, they will always fight to keep their ideas alive.

[5.4] So perhaps my friend is incorrect. Even if the creators of *Dark Age of Camelot* isolate their player base until the company is finally forced to abandon the game, I do

not think that will spell the end. The fans will step in.

6. Note

1. Chris Farrell, item 3, Middle Earth CCG, GeekList: Chris' All-Time Top 20, <http://www.boardgamegeek.com/geeklist/18/item/170#item170>. The 1995 Origins Award winners can be found at <http://www.originsgamefair.com/awards/1995>.

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Symposium

Playing Sue

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[0.1] *Abstract*—Using ludology and narrative theory, we explore the concept of the Mary Sue in RPGs as well as in fandom. In fantasy RPGs, self-insertion and wish fulfillment are encouraged. However, the presence of a Mary Sue can still disrupt the gaming experience.

[0.2] *Keywords*—Fan fiction; Ludology; Mary Sue; Narrative; Simulation

Beck, Julia, and Frauke Herrling. 2009. Playing Sue. *Transformative Works and Cultures*, no. 2. <http://dx.doi.org/10.3983/twc.2009.0093>.

1. Introduction

[1.1] Before we encountered Mary Sue in fandom circles, we had already met her elsewhere: in our computer game and role-playing sessions.

[1.2] As fans and gamers, we are at home both in fandom and in the various story worlds of role-playing games (RPGs). In this essay, we take a closer look at the Mary Sue concept in both RPGs and fan fiction. Using concepts from ludology and narrative theory as a basis, we scrutinize this figure against the backdrop of our practical knowledge.

[1.3] We define RPG broadly as a character-focused game that features rule-based, not skill-based, action. Because we are drawing from our extensive experience of Western-style role-playing games in various media, we deliberately chose this genre angle. One reason why it works so well for our purposes is because, like many fan works, RPGs are character driven and by extension narratives play a significant role.

[1.4] Frauke has been a player and game master of pen-and-paper RPGs since long before she was absorbed by fandom. To her, both experiences always felt connected. She has been intrigued by the difference between writing her own original characters

and playing them in role-playing sessions, and writing borrowed characters in her fan fiction.

[1.5] Although Julia has never role-played with pen and paper, she is a computer and console RPG geek and has also participated in free-form writing RPGs. One example of a computer/console RPG is *Mass Effect*, a successful science fiction shooter hybrid first released for Xbox 360 in 2007 by BioWare. It created a media storm when Fox News decried the game's supposedly raunchy lesbian sex scenes. The lesbian sex is a fact: the user may choose to play a female version of the central player character (PC), Commander Shepard, and one of the optional romance quests involves a female-coded alien. There is, however, no such option for gay romance when the PC is male. Disappointed by the missed opportunity to pair male as well as female Shepard with the human male character Kaidan, we now "ship" female Shepard with the alien male character Garrus. Sadly, *Mass Effect* fan fiction for this particular pairing has a limited appeal: as a customizable stand-in for the game's player, Commander Shepard in fan fiction functions by definition as the writer's Mary Sue.

[1.6] The typical red flags of self-insertion and wish fulfillment are necessary but insufficient criteria for identifying a Mary Sue. Using only these criteria is problematic because it places any original character who experiences outrageously exciting adventures under suspicion of being a Sue—especially if female. This is why we adopt Alara Rogers's (2003) definition of Mary Sue as "an original character who overshadows the canonical cast." That is, the Sue's defining feature is her habit of distorting other characters and warping the fictional world around her person.

[1.7] In fannish circles, the term "Mary Sue" is often used as a slur. In contrast to this derogatory connotation, our position is that she is not evil in herself, but rather her effect depends on the context in which she appears. The Mary Sue phenomenon functions quite differently if seen from a fan fiction versus a gaming perspective.

2.

[2.1] As the theoretical basis for our ideas, we use concepts from game studies, or ludology. Basically, we want to look at the contested relationship between narration and simulation. "Ludologists love stories, too" (Frasca 2003a), but they focus on game play and game mechanics over story aspects, and simulation is a key concept for modeling those. "[T]o simulate is to model a (source) system through a different system which maintains (for somebody) some of the behaviours of the original system" (Frasca 2003b:223). The rules governing this system—the simulation—are often invisible, but can be informed by ideology as much as the actions or content within (like scripting mainly heteronormative romance options).

[2.2] Narration, on the other hand, is commonly understood as "the representation of a story," meaning that a story exists independent of its rendering (adapted from Abbott 2007:39–40). What actually qualifies as narration versus story, however, is less clear-cut and is subject to individual opinion.

[2.3] Simulation and narration have much in common, but while "their semiotic sequences might be identical...simulation cannot be understood just through its output" (Frasca 2003b:224). We agree, but to turn this on its ear, we argue that story (the sequence of events) likewise cannot be understood only through narration (the output that we read). In our view, the two concepts (narration and simulation) do not oppose each other: instead, stories are rendered into narratives through simulation. To put it the other way around, narratives are the output of running story simulations. After all, the most basic simulational model is to calculate a situation in one's mind and play games of "what if?"—something that fan storytellers are more than proficient in.

[2.4] So far, so good. But what makes this combined simulation-narration model useful for theorizing the Mary Sue?

[2.5] As per our definition, a Sue story is not characterized primarily by self-insertion of the author but by the distortion of the canon to accommodate her wish-fulfillment fantasies. If viewed through a ludological lens, the Sue's text fails as narration because it is the representation of a highly personalized simulation that has been "inadequately transformed" into "normal story values" (Nielsen Hayden 2003). To be more precise, the Mary Sue writer is playing an RPG of one. It is not the output—the narration—that is important to her. It is the simulation, the state of playing, a game of make-believe that is at the heart of the Sue experience. Clearly, we are talking about the realm of daydreams and personal fantasies. But in a fannish context, these fantasies often take place in Middle-earth (Tolkien), on Faerûn (*Dungeons & Dragons: Forgotten Realms*), or on the SSV *Normandy* (*Mass Effect*). The record of this experience, the resulting game log of sorts, is usually only of interest to the Sue writer herself, and to those few who share her very specific preferences.

[2.6] Thus, classifying the Sue story first and foremost as if its primary purpose was to function as narration is analogous to reading a record of a group's epic *Dungeons & Dragons* campaign, or the role-play journal of a LiveJournal Hogwarts simulation, as if they were meant to function independent of their game contexts. Much like watching someone else play a racing game on their computer, these recorded experiences are of limited interest to nonplayers. The tragedy of the Mary Sue is that her game logs are classified as, and read just like, "primary" narrative texts.

3.

[3.1] If Mary Sue fan fiction is an unintentionally misclassified game log, then looking at her from a gaming context should result in a kinder assessment. But unlike the Sue story, not all games are single-player experiences, and that introduces a new set of catches.

[3.2] We use pen-and-paper RPGs here as an example of cooperative creation of a shared game experience. In fantasy RPGs like *Dungeons & Dragons*, self-insertion and wish fulfillment are both not only unproblematic, but they are actually encouraged. Player characters are referred to as heroes, and the genre expectation is that they are forged as heroic characters, not modeled after average people.

[3.3] So if we have a group of five larger-than-life storybook heroes and heroines who go on new adventures every week, how can the presence of a Mary Sue still disrupt this experience?

[3.4] The most important factor here is that there is not a lone hero, but a group that constitutes a heroic team. This would also be the case in, for example, a LiveJournal fandom RPG, where every character belongs to the main cast of the game; no one is an extra or supporting character per se. The roles the PCs enact in the group hierarchy are developed during the game session in constant negotiation. All players cooperate because they have a common goal; they agree to work in a balance that allows everyone their own wish fulfillment. Rules and the game master's supervision ensure retaining this balance.

[3.5] What we describe here is, of course, the ideal RPG group rather than a representative case. There are several player types who tend to spoil their coplayers' fun. One of those types, a certain incarnation of the "power gamer," is looking only for her own wish fulfillment without realizing that there *is* a balance to maintain. With her domineering presence, she overshadows the rest of the group and tries to focus the game master's attention on herself and her character. Just like the Mary Sue in fan fiction, this power gamer warps the RPG universe, including the other players' characters, around her own gaming goals. She tries to dictate everyone's behavior in order to shape the other characters' actions according to her wishes.

[3.6] This is what makes the pen-and-paper Sue problematic—she infringes on the other players' autonomy. In an RPG, the player's control over her own character is essential to generating identification. Whether the character is a self-insertion or simply represents the author-player's choices, she is an extension of the player's persona. Taking control of this persona interferes with the game experience and may even feel like an assault on its creator.

4.

[4.1] In an interesting shift of perspective, many original authors report a similar feeling of violation at the thought of fan fiction writers "playing" with their characters. In a way, they are pen-and-paper role-players outside of a gaming context, and they expect readers to honor the RPG contract of not trying to control others' characters. They cannot, or do not want to, sever the bond between character and player/writer that is forged during the simulation stage of story creation.

[4.2] We argue that this individualized bond is at the heart of the RPG experience, and that Mary Sue is just a more extreme, more personalized form of the player's persona. This is also why any Mary Sue is more complex than self-insertions or original characters. Because Mary Sue is someone else's highly customized, unmistakably personalized wish-fulfillment fantasy, she is a static, proprietary character.

[4.3] By contrast, in fandom, it is the consensus that everyone is welcome to add her own interpretation to the mix: the source text's characters are considered open and available material. Different versions of any given canon character coexist peacefully, while there is only one exclusive version of each Mary Sue.

[4.4] But it is not only the characters created for role-playing that do not invite transformation. The very form of the game log prevents the reader/listener from actively engaging with the text.

[4.5] Sometimes, when you encounter a fellow pen-and-paper gamer from outside your own RP group, she will start to tell stories about her character's brilliance. This is normal and understandable: the average role-player is immensely proud of her character ([note 1](#)). However, this player may talk and talk without ever noticing that she is beginning to bore you. She is recounting her personal gaming experience, reliving the adventure while sharing the story.

[4.6] But this story is not translated into a narrative paradigm and is lacking characteristics like structure, closure, or, most importantly, a place for the listeners to situate themselves. You, the listener, cannot relate to this text: neither a collaborative simulation nor an accessible narrative, it is closed to you. Like Mary Sue from a fan fiction perspective, the story of an RPG character is a source that does not invite a creative response.

5.

[5.1] So far, we have only talked about the negative effects of the Mary Sue character within role-playing and fan fiction communities. But the true home of Mary

Sue is an area that, by sheer number of players, is bigger than fan fiction fandom and pen-and-paper RPGs combined: the computer or console single-player RPG.

[5.2] Indeed, what sets Western-style RPGs apart from Japanese RPGs (JRPGs) is the former's focus on creating a narrative vacuum for the player's self-insertion. As one enthusiast puts it, "I wasn't interested in playing somebody else's character. The bare minimum requirement I have for playing an RPG is that I get to choose what character I play—if not, to me, I may as well read a novel because that is the medium I'm comfortable having the characters chosen for me" (note 2).

[5.3] This is why amnesiac (*Star Wars: Knights of the Old Republic*), reincarnated (*Planescape: Torment*), or deliberately nondescript characters who quickly rise to fame (*Might & Magic*) are popular tropes for RPG protagonists. With limited connections to a narrative context, there is no need to actively warp the story world or original cast to make the protagonist shine: the game is designed with the single purpose of creating the perfect environment for Mary Sue. What is seen as a bug in fan fiction is a feature in computer RPGs.

[5.4] This is harder to accomplish than it sounds. From assigning physical traits to choosing a background story, many customizable features (like face generation) give the illusion of choice, but they often have little impact on actual game play. Without prescribed features and events, there are no set narrative goals, which defeats the purpose of the story-driven RPG. Yet each ready-made story bit limits the player's freedom to pursue—and create—her own personal narrative, like romancing whomever she wishes regardless of gender or (alien) anatomy (as in the aforementioned case of *Mass Effect*).

[5.5] This balance between prescribing too much on one hand, and offering too little narrative content on the other hand, is being continually negotiated by producers and critically commented on by players:

[5.6] [F]or me, that fact that I am participating—the [...] protagonists [sic] is significantly made by me, is a very important part of my enjoyment, even if it is somewhat illusionary. This is the unique opportunity that video games offer. They aren't MEANT to be an empty cypher, they are meant to be created significantly by the player in more than just stats and race selection. (note 3)

6. Conclusion

[6.1] In this wild ride from fan fiction through pen and paper to single-player computer RPGs, we used the conventional concept of the Mary Sue as a focal point for

highlighting the playful nature of story creation. Our aim was to support a more dynamic understanding of narrativity and its interdependence with simulation. At the same time, we wanted to show that, contrary to popular opinion, there is nothing whatsoever wrong with Mary Sue in and of herself. The problem is one of context.

[6.2] The Sue writer is simulating a single-player campaign, while both fandom and pen-and-paper RPGs are collaborative ventures, although they work very differently. In fandom, the Sue story is, essentially, a closed text, a relatively unfiltered log of wish fulfillment that has most of the trappings of typical fan fiction but is an uneasy fit in a community that is based on transforming and sharing texts. Within role-playing groups, the Mary Sue, or power gamer, disrupts the balance of wish fulfillment agreed on among players by trying to make the other characters' actions revolve around her. It is only in single-player computer/console RPGs that this version of the Mary Sue is truly at home, even if creating a narrative vacuum for the player to situate herself in creates its own set of challenges.

[6.3] We wholeheartedly enjoy the gratification through simulated wish fulfillment and personalized agency that is at the heart of the Mary Sue experience—by engaging us in this way, game franchises have won us as fans. This is why, unlike many fan fiction fans, as gamers, we have an overwhelmingly positive perception of a character type that is as ubiquitous as it is derided in fandom. Differentiating between "game logs" and "fan fiction" has helped us understand and appreciate the dynamic, cooperative creative processes that are at work under the surface of fandom, beyond the textual traces that they leave behind.

7. Notes

1. For example, see the extremely active and long-lived thread "Post your Shepard pictures here" on the BioWare Forums (<http://masseffect.bioware.com/forums/viewtopic.html?topic=647662&forum=104>), in which players showcase the character model they created (created August 27, 2008; accessed January 20, 2009).
2. Alodar posting in the BioWare, Dragon Age, Bioware Storytelling thread, August 31, 2008, <http://dragonage.bioware.com/forums/viewtopic.html?topic=648224&forum=135&sp=15> (accessed January 20, 2009).
3. Lady Shayna posting in the BioWare, Dragon Age, Bioware Storytelling thread, September 2, 2008, <http://dragonage.bioware.com/forums/viewtopic.html?topic=648224&forum=135&sp=45> (accessed January 17, 2009).

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Interview

Interview with Paul Marino

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[0.1] *Abstract*—An e-mail interview of Paul Marino, cofounder of AMAS, conducted by Geoffrey Long.

[0.2] *Keywords*—Animation; Film; Machinima; Video game

Long, Geoffrey. 2009. Interview with Paul Marino. *Transformative Works and Cultures*, no. 2. <http://dx.doi.org/10.3983/twc.2009.0111>.

1. Introduction

[1.1] According to the Web site of the Academy of Machinima Arts and Sciences (AMAS), machinima is "filmmaking within a real-time, 3D virtual environment, often using 3D video-game technologies" (<http://www.machinima.org/machinima-faq.html>). The definition continues:

[1.2] [Machinima] is the convergence of filmmaking, animation and game development. Machinima is real-world filmmaking techniques applied within an interactive virtual space where characters and events can be either controlled by humans, scripts or artificial intelligence. By combining the techniques of filmmaking, animation production and the technology of real-time 3D game engines, Machinima makes for a very cost- and time-efficient way to produce films, with a large amount of creative control.

[1.3] In 2002, director, producer, animator, and author Paul Marino cofounded the AMAS to promote and organize the growth of this rising art form, and he currently serves as its executive director. In 2004 he wrote *3D Game-Based Filmmaking: The Art of Machinima* (Paraglyph Press), which is considered to be the first book on the subject. He is presently working as a senior cinematics designer at BioWare Corporation on such popular games as *Mass Effect* for the Xbox 360. The following is an e-mail interview conducted with Marino in November 2008.

2. Backstory: Origins and personal histories

[2.1] **Q:** How and when did machinima first get started?

[2.2] **PM:** Machinima got its start during the early 1990s, with games such as *Stunt Island* and *Doom*—games that allowed the player to create their works using tools that the developers included. However, it didn't take off until 1996, when a small team of *Quake* players known as The Rangers created a small film called *Diary of a Camper* using the demo-recording feature that id Software included with *Quake*. It was a short, insular comedic piece that became wildly popular within the *Quake* community and kicked off a small subcommunity of groups making films in *Quake*.

[2.3] **Q:** Before you began working with machinima, you won an Emmy award for your animation work with Turner Broadcasting. How did you get started working with machinima, and what attracted you to the form?

[2.4] **PM:** I was a film major in college when I decided to pursue a career in animation and broadcast design. However, while moving forward in my profession, I also had a love for computer games. I bought an Apple IIc, which then became an Amiga 2000, which then became a PC. This allowed me to begin playing with the tools that developers were including with a variety of PC games. Once *Quake* was released, I saw an opportunity to explore a number of my passions in one setting—filmmaking, animation, and game technology. It became clear to me that the future of filmmaking was surfacing.

[2.5] **Q:** In addition to your work with the AMAS and at BioWare, you also cofounded the machinima production group the ILL Clan. Can you talk a little bit about your work with that group?

[2.6] **PM:** The ILL Clan was formed from the start as a group of friends who enjoyed playing *Quake*. However, we had worked together in the past on a variety of media projects, specifically in developing a multiuser chat space using VRML [virtual reality modeling language]. During our *Quake* playing, we saw both *Diary of a Camper* and *Operation Bayshield* by Clan Undead. This inspired us to create our own *Quake* movie, *Apartment Huntin'*, using entirely improvised dialogue, as a few of us in the group had been also part of an improv theater troupe. From *Apartment Huntin'*, we continued down the path of developing works involving improvisation, taking advantage of *Quake*'s real-time environment. My favorite of these endeavors was *Common Sense Cooking*, which had us create an entire animated short with Larry and Lenny Lumberjack in front of a live studio audience at the Florida Film Festival. This included three puppeteers, a virtual cameraman, a director, and an improviser running sound effects for the show. The live show proved successful enough to create a small run of live shows in New York City immediately afterward.

[2.7] **Q:** What other machinima works have you created, or been a part of creating? What was your role in their creation, and what did you learn in the process? How did

the process evolve over the years?

[2.8] **PM:** I've been involved with a number of different machinima projects since branching off from the ILL Clan. I developed a music video using *Half-Life 2* titled "I'm Still Seeing Breen," which was initially an experiment in using the tools included with *Half-Life 2*, such as FacePoser, which allows the user to lip-synch new lines of dialogue to the characters in *Half-Life 2*. In addition, I helped with a couple of projects with Rooster Teeth Productions, most specifically *The Strangerhood*, which is their series made in *The Sims 2*. In this project, I helped develop several sequences using *Sims* characters married with visual effects.

[2.9] What came from these experiences is a realization of how important machinima is becoming to the game developers. Over the last few years, the growing support for machinima has shown up as included tool sets, developer-sponsored contests, legal terms allowing machinima creation, and stand-alone machinima applications.

3. Machinima as art form

[3.1] **Q:** In your opinion, should machinima be considered a type of animation, like stop-motion, or should it be considered a completely new type of filmmaking?

[3.2] **PM:** I think today it's very easy to see its animation and remix lineage. However, as machinima matures, the parallels to live-action filmmaking will become much more evident and gain acceptance as an evolved medium.

[3.3] **Q:** What unique advantages do the particular affordances of video game technologies provide over traditional filmmaking or animation? Does the use of video game technologies limit the types of creations that machinima artists can make?

[3.4] **PM:** The advantages machinima provides are numerous. In terms of animation, the real-time aspect of machinima allows creators to record action and events live, where unique moments can be captured and are nearly performative in their creation. With respect to live-action filmmaking, the virtual environment can take the shape of anything the creator has in mind. This can be the look of the environment or characters, the physics of the space, even how objects react to one another. By using artificially intelligent characters, scenes can be scripted with less effort than those that require handcrafted choreography.

[3.5] It's true that limitations are a large part of machinima production. Machinimators have to cut around animations, approximate lip-synch, or avoid close-ups because the artwork doesn't hold up at such tight focus. Like most art, it's these

limitations that help craft the types of works being produced and that bring out the creativity in the filmmakers.

[3.6] **Q:** Scholars such as Henry Jenkins, Louisa Stein, and Robert Jones have recently been questioning the influence of gender in the machinima community, most notably in essays such as Jenkins's "Complete Freedom of Movement" and Jones's "Pink vs. Blue," and in the debates between Jones and Stein on Jenkins's blog (http://henryjenkins.org/2007/06/gender_and_fan_studies_round_t.html, June 6, 2007; and http://henryjenkins.org/2007/06/gender_and_fan_studies_round_t_1.html, June 7, 2007). Have you noticed a strong dominance of gender, male or female, in the machinima community? Is there any notable difference in the gender of machinimators versus machinima audiences?

[3.7] **PM:** I don't think there's any doubt that the machinimator group at large skews toward men. It was quite some time before machinima saw its first woman director (*Anna*, 2003, dir. Katherine Anna Kang). This likely comes from the direct line emanating from the demographics of those who play games and who subsequently pursue game-related materials. However, we are currently seeing the gender scales balance out. Games and virtual worlds have their share of women users (*The Sims*, *World of Warcraft*, *Second Life*) who are in turn looking at machinima as an avenue of creative expression.

[3.8] **Q:** In the debate on Jenkins's blog, Robert Jones comments as follows:

[3.9] Women have historically been denied access to these more advanced technologies based on cultural rhetorics that situate men as "masters" of technology while women merely use them once user friendly interfaces have been developed. That's why I cite the proliferation of *The Sims* machinima among women being a corollary to the development of user friendly tool sets shipped with that game...The cultural rhetoric prescribed to women has created this assumption in many women's minds and thus stands as the barrier to them using them, NOT their own limitations. (http://henryjenkins.org/2007/06/gender_and_fan_studies_round_t.html, June 6, 2007)

[3.10] Is this in line with your own personal observations? Have you perceived any reluctance on the part of would-be female machinimators as a result of the complexity of the tools? Alternatively, as Jenkins argues elsewhere, do you believe the apparent dominance of male-oriented games such as *Doom*, *Quake*, and *Halo* in machinima serves as a deterrence to such female machinimators? What do you think could be done, or is being done, to address these concerns?

[3.11] **PM:** Robert's take is an interesting one. I do believe women had been reluctant to develop machinima until games became more suited to their tastes. That's

a fairly general statement, I admit, but titles such as *Doom*, *Halo*, and *Quake* never appealed to women en masse. Possibly in part it results from Jones's theory that women inherited a belief system that made those games off-limits. When *The Sims 2* surfaced, it was embraced by a larger female demographic, mainly because of the game's focus on relationships. However, as someone who has dabbled in *Sims 2* machinima, I can attest that making films on that platform is not for the faint of heart. It's possible that women have been protected by society from technology, but making *Sims* machinima does not dictate that same belief. I'm not sure if the balance of male-oriented games acted as a deterrent to female machinimators, though; I do believe it's solely in the base of the source game. As games and virtual worlds that appeal more to women surface, more female machinimators will surface as well.

4. Cultural and corporate perceptions

[4.1] **Q:** There is a possible perception of machinima creators as second-class filmmakers as a result of their use of tools, models, sets, and assets that were created by others. How does the machinima community address that issue? Does the community contest that perceived status, or does it embrace it?

[4.2] **PM:** This is a very blurry space for machinima—the line of genre versus technique. Fans of machinima made for players of *World of Warcraft* love the effort poured into these productions because it's a work made for them. These filmmakers hold celebrity status in WoW because of how well they crafted a work that uses the game they devote so much time and passion to. Some works can transcend the machinima community (*Red vs. Blue*, for example); although they still cater to a certain audience, the appeal expands beyond the hard-core *Halo* gamer.

[4.3] Machinima can fall into the fan fiction category to a degree, but because machinima can be a much more common creative canvas, it can sometimes break free from the "second-class" label and stand on its own. I'm sure we'll see more and more of this as the tools become more sophisticated and artists take advantage of them.

[4.4] **Q:** Machinima is often billed as "user-generated content," but that label seems to imply that all works of machinima are inextricably bound to the game in which they were created. What is the attitude within the machinima community toward this association? Is this connection considered largely acceptable, or should works of machinima be considered on their own as independent works? What would such a shift in popular perception require?

[4.5] **PM:** Most folks in the community that I've been in contact with seemed unbothered by this notion, mostly because they're more interested in the work than

how it's labeled. Most see them as independent works, again because they look at the machinima produced as art that stands on its own.

[4.6] As machinima and the surrounding metamedium become more integrated, the notion of user-generated content will fall away, and machinima will be just another way to produce content.

[4.7] **Q:** It was recently announced that Machinima.com, which bills itself as "the premiere online entertainment network showing original videos from your favorite video games," raised US\$3.85 million in venture funding (http://news.cnet.com/8301-13772_3-10083692-52.html). What do you think this says about the perception of machinima in the business world? What are the perceived business models for machinima development? Is machinima in danger of becoming perceived as merely a new form of advertising?

[4.8] **PM:** This is a very interesting development, which I largely see as positive. It sends a signal to the larger media that machinima is taking root with audiences that may have moved away from more traditional formats. Still, this business model isn't new to anyone—exclusive content that caters to a specific audience. The differentiator here is that the audience is hard to reach by traditional media outlets.

[4.9] **Q:** Fan-made videos (or fan vids) have long served as a source for counterreadings (as in slash vids) or often very particular interpretations (as in character vids) of popular works. Recently, more fan vids have been addressing particular political issues, such as homophobia (Luminosity's "Vogue"), misogyny (Luminosity and Sisabet's "Women's Work"), or racism (Giandujakiss's "Origin Stories" and Lierdumoa's "How Much Is That Geisha in the Window?"). Is there anything comparable to that in machinima? That is, does machinima exist that explicitly criticizes the source text or the culture surrounding it? Does machinima tend to run exclusively toward parody and humor, or are there examples of "deeper" works and critiques?

[4.10] **PM:** Machinima, for the most part, is still in the pains of adolescence—self-infatuated and uninterested in issues at the periphery. However, with its maturation, there are a few artists who have used machinima for more critical purposes. Joseph DeLappe's *Quake/Friends* looks at the celebration of violence as promoted through games, and both Eddo Stern and Jessica Hutchison's *Landlord Vigilante* and Jim Munroe's *My Trip to Liberty City* add commentary about how games symbiotically create and color our worldview.

[4.11] **Q:** Do you have any theories as to why machinima has become so popular, whereas fan vids largely remain fairly obscure? Is it because the tools are now being

included in the source materials themselves? Is it because machinima may be viewed as less threatening to the original intellectual property owners? Or is it perhaps the result of the aforementioned gender issue, with machinima a largely male community and fan vidding a predominantly female one?

[4.12] **PM:** It's hard to pinpoint the exact cause, but I believe there's a number of reasons why machinima has connected with a larger audience. The rise of gaming as mainstream entertainment, the accessibility of powerful creative software (by both developers and the community), the seemingly insatiable desire for self-expression—this mix of ingredients has paved the way for people to both emulate and discover artistic expression, particularly within the comfort zone of extreme familiarity.

[4.13] Additionally, machinima has been seen as an extension of intellectual property, offering much more room to grow, whereas vidding is seen as reworking what's already been completed. Although both machinima and vidding involve the fine art of contextual remixing, machinima stands out because of its manipulation of camera and point of view. This literally brings a new perspective to the context and grabs attention more readily. To that, one could look at vidding as the practice of "this means something different," whereas machinima leans toward "let's show something different." And to take it a step further into gender-related territory, we could consider that machinima is a more brute force approach, associated with more masculine traits, whereas vidding is a more finessed art, for which women have shown more aptitude. However, this conditioning seems to be slowly finding a balance over time.

5. Moving toward a machinima canon

[5.1] **Q:** I'd like to close with a reading list, to give interested readers some homework. What are the works that currently make up a machinima canon—that is, what machinima works should audiences new to machinima seek out first, and why?

[5.2] **PM:** There are quite a few works out there that I think define machinima, but here are a few that are a good introduction to the medium:

Video 1. *Diary of a Camper (1996). The very first machinima work by Quake clan The Rangers is somewhat hard to watch (and impossible to hear—it's mostly silent), but this seminal piece is the foundation of machinima history.*

Video 2. *Warthog Jump (2002). Randall Glass exploits Halo's physics engine to comedic effect, interspersed with sound bites and song samples that make for one of the first truly entertaining examples of machinima.*

Video 3. *Red vs. Blue (2003).* Rooster Teeth creates the de facto example of machinima, a series embraced by gamers and nongamers alike, showing firsthand that machinima can reach beyond its initial audience, with approximately 1 million downloads per episode. They have recently completed their 119th episode, capping off the sixth season.

the photographer from Friedrich Kirschner on Vimeo.

Video 4. *The Photographer (2006).* A lone photographer is searching for his subject through the crowded city. Filmmaker Friedrich Kirschner mixes various media elements in his machinima, thus emphasizing that the medium not only can be devoid of game assets but also can break free of its commonly known framework.

Video 5. *Ignis Solus (2007). This Team Fortress 2-based machinima is the dictionary definition of making narrative stand above the game platform. Zach Scott directed this Pyro-as-Everyman piece, making the locations of the game seem designed from the ground up as places of solitude.*

Video 6. *The Snow Witch (2007). This Japanese ghost story is adapted from Hearn's "Yuki-Onna" (Kwaidan). Two woodcutters—an old man and his young apprentice, Minokichi—get trapped in a snowstorm in the forest and take refuge in a hut. That night, Minokichi is forced to make a bargain that will later be forgotten. This is an extremely well-made machinima by one of machinima's top female directors, Michelle Pettit-Mee.*

Interview

Interview with Doris C. Rusch

Clara Fernández-Vara

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[0.1] *Abstract*—An interview with Doris C. Rusch, postdoctoral researcher at the Singapore-MIT GAMBIT Game Lab, conducted by Clara Fernández-Vara.

[0.2] *Keywords*—Academia; Art games; Game studies; Metaphor; Video game

Fernández-Vara, Clara. 2009. Interview with Doris C. Rusch. *Transformative Works and Cultures*, no. 2. <http://dx.doi.org/10.3983/twc.2009.0100>.

1. Introduction

[1.1] The following is an e-mail interview with Doris C. Rusch, postdoctoral researcher at the Singapore-MIT GAMBIT Game Lab. Last summer, Rusch worked with an international team of college students on a video game prototype, *Akrasia* (<http://gambit.mit.edu/loadgame/akrasia.php/>), as a proof of concept based on her research on metaphors in video games (http://gambit.mit.edu/readme/papers/metaphors_in_game_design.pdf). As she has explained elsewhere (http://gambit.mit.edu/updates/2008/09/akrasia_-_a_game_based_on_an_a_1.php/), the game was based on the abstract concept of addiction, in an attempt to push the boundaries of game design.

[1.2] Rusch's background is widely varied, including studies in German literature, philosophy, English, and comparative literature at the University of Vienna, where she also received her PhD in applied linguistics. Her work in computer game studies is part of a larger interest in narrative worlds that also spans books, comics, and films.

[1.3] Before joining GAMBIT, Rusch did postdoctoral work at the Institute for Design and Assessment of Technology at Vienna University of Technology. Her research focuses on the medium-specific characteristics of digital games and their potential to produce a wide range of emotionally satisfying and deeply meaningful experiences. Although her work is theory driven, she aims at applicability of her research to actual game design, with the goal of pushing the boundaries of games as media.

2. Video game research as a path for innovation

[2.1] **Q:** Could you explain what your area of research is?

[2.2] **DR:** Generally, I have a huge interest in finding ways to systematically expand the thematic and experiential range of digital games. I want games that challenge players emotionally, meaning not just in a sensorimotor or cognitive way—I want games that are about something and change something inside you.

[2.3] Together with Nikolaus König, I did some work on identifying aspects of a fictional world that are usually not simulated in games. Most games provide an outside view to events—this happens, then that—very action oriented. It's rare that games provide an inside view to the events; mood, atmosphere, ideology, and mental states of avatars are rarely represented in a procedural way. To create game play experiences that teach us something about ourselves, we cannot shy away from these subtler and less plot-oriented aspects of fictional worlds.

[2.4] My work on metaphors in games relates to this wish for more complex, multilayered game play experiences. Most games are based on physical concepts—running, fighting, object manipulation, cooking, waitressing. They are *about* these things, and thus they tend to be pretty shallow. There's no need to interpret something that is obvious. If a rose is a rose is a rose, you do not have to ask a lot of questions—it's just a rose! But if it's a rose as well as a symbol for love, beauty, or pain (and sometimes all of these concepts are woven into one), it's getting more interesting.

[2.5] One of the questions I ask myself in my research is this: how can we make profound games? It starts with basing games on abstract concepts instead of physical ones. To make abstract concepts tangible, we need metaphors. Simply put, metaphors are physical concepts that represent abstract concepts—love as a journey, rising anger as an avalanche. Metaphors provide the physical surface that is needed in every game, but now there is something underneath that surface, namely that which the metaphor represents.

[2.6] In a more general sense, I'm fascinated by the mediated nature of digital games—the gap between game and player, and the creative ways it can be dealt with. Of course, this requires metaphors too. At the moment, I'm most intrigued by what I call experiential metaphors. Through a clever design of challenges in the game, you try to evoke a specific emotional reaction in the player. Through the specific fictional context in the game, this emotional reaction takes on a specific meaning. It's all about false attribution, but it's pretty powerful. With the use of a handful of game emotions, you can simulate a much wider variety of fictional emotions. Simple stress evoked through a game play challenge is turned into claustrophobia in players who are not

claustrophobic, because the challenge takes place in an underground labyrinth and their avatar has a problem with confined spaces.

3. Metaphors in video games

[3.1] **Q:** Metaphors are a literary trope that has also been adopted by visual arts like painting and film. How do metaphors apply to video game design? How can they help transform video game design, as well as the way we play games?

[3.2] **DR:** Metaphors are everywhere. To quote George Lakoff and Mark Johnson, we live by metaphors; they structure our everyday experiences and help us to grasp abstract thoughts and ideas. See? That was a metaphor. An idea couldn't be grasped if we didn't think of it as an object.

[3.3] The most basic definition for a metaphor is understanding one thing in terms of another thing. Video games have a natural affinity for metaphors because games are mediated experiences. There is a gap between game and player that can only be bridged by way of metaphors. Pain cannot be felt directly (luckily!); our sensory perception of the game world is limited. We also cannot manipulate the game world directly: Shrinking health bars represent physical harm, a button push stands for opening a door or stealing a car. Of course, these are not terribly interesting interface metaphors. I'm more fascinated by those that aim at representing complex processes on a higher level of detail and in a more procedural way—for example, chemical experiments, cooking (for some people the same thing in real life), sucking blood in *Mr. Mosquito*. Those are the highlights.

[3.4] Designing interesting and suitable interface metaphors is an art in itself. Finding new interface metaphors in games has become one of my main incentives to play. Seeing what a designer has identified as salient elements of an experience or action, and how she translated them into a metaphor, can make you see those actions or experiences in a completely different light, and also show you how subjective and ideological metaphor design is. I'm especially fond of conversation metaphors that emphasize the strategic elements of persuasion. There's an interesting example of such a game in the MMORPG [massively multiplayer online role-playing game] *Vanguard*.

[3.5] Of course, metaphors in games can have a range of different functions; interface metaphors are simply one of the most obvious ones. On the larger scale, there are games based on abstract concepts. There are also camouflage metaphors, which deal directly with the mediated nature of games and try to provide plausible explanations for them—for example, the simulation metaphor in *Assassin's Creed*, or the controller metaphor in *Robot Alchemic Drive*. These metaphors show us that

mapping the game and the fiction part of a game in a convincing way is still a design challenge.

4. Applying theory to game design

[4.1] **Q:** What is *Akrasia*? What type of experience were you trying to create? How did it contribute to advancing your research?

[4.2] **DR:** *Akrasia* is a game based on the abstract concept of addiction. At first, we just wanted to see if we could procedurally represent (our interpretation of) the addiction gestalt and get players to understand what we were trying to model. We soon realized that if we used metaphors, procedural representation alone was not enough to create that "aha" moment we were aiming for. We needed to leverage the experiential component too, to foster game comprehension. Why? Because the physical surface was very obscure—there's a whalelike creature floating around, and when you catch it, the world changes and...whoops! What's that? Now there's a monster chasing you. Weird!

[4.3] Players didn't realize that the glowing orb they collected before they entered the game world represented a pill, and now they are junkies, which is the reason for the psychedelic environment. Of course, not knowing that made it hard to decipher the rest. We had to find a way to model junkie behavior in the player in order to bridge the gap between player and avatar. People needed to experience what we had identified as the stages of addiction—dependency, temptation, perseverance to quit cold turkey—in order to understand what the game was about. Conveying these experiences then became our primary goal. As long as players interpreted the game in a way that showed us they had at least structurally similar experiences to addiction—some said the game is about love, revenge, or consumerism—I was satisfied. Love can feel like addiction, and so can consumerism. I like the interpretative richness of *Akrasia*. And I also love the name, which we borrowed from the ancient Greek goddess of distraction.

[4.4] Working on *Akrasia* provided me with a number of important insights. For one, I realized that procedural rhetoric that does not take the experiential level into account is only half the rent. It is not just about the rules and the fiction, but also about performance (Gonzalo Frasca wrote a great dissertation on that). Of course, there are certain systems that can be fully understood on a purely cognitive level, such as mechanical systems. But if the game is based on an abstract concept—and all emotional experiences are basically abstract—cognitive realization often follows the more immediate, visceral response to the game: how the game makes you feel when you play it. *Akrasia* also got me thinking about the player-avatar relationship. If you want to make an abstract concept tangible, you've got to align the player's goals with the avatar's goals. If the game is about trust and the avatar assumedly experiences trust and betrayal, but the player is oblivious of that because she just wants to win the

game, the chance for a profoundly moving "aha" moment is wasted. How do you get the player in the right mind-set? I'm currently working on a game about attachment and emancipation where the gap between player and avatar will again be one of the biggest design challenges.

[4.5] In *Akrasia* I wanted to test a design approach described in a paper I coauthored with my colleague Matthew Weise. In the paper, I quite confidently wrote about how to identify the various dimensions of complex, structural metaphors. *Akrasia* taught me that there is a big, yawning gap between having all the elements and turning them into a suitable design. So this is another thing I'm working on now. I am trying to come up with some sort of design grammar that facilitates testing different designs for a specific metaphor, in order to find one that represents the system procedurally and also takes player performance into account. The goal is to come up with methods to facilitate purposeful game design. All in all, *Akrasia* raised more questions than it answered, but for me that was hugely productive.

5. Vision and authorship in video games

[5.1] **Q:** How does the role of the author fit with the collaborative process of making a game? Where does the vision of the game come from? Can there be such a thing as a "game auteur"?

[5.2] **DR:** *Akrasia* was made by a team of students, and that caused some problems that game auteurs, such as Jason Rohrer, don't have to deal with. I was really lucky with my team, don't get me wrong. But if you use a game to express something deep and profound, you need to have a clear perspective; you need to feel strongly about it and have a vision of what you want to convey. It's hard for a team of people to agree on one interpretation of an abstract concept.

[5.3] We had a long brainstorming phase where we tried to identify the idea on which the game should be based. Love came up frequently. We had four very different interpretations of love, ranging from sacrifice to pain to a walk in a field. How do you reconcile these different perspectives and get everybody to be passionate about them? For the kinds of games I'm interested in, compromise in the conceptual phase is a trap. So if the game is made by a team, it really helps to have a vision guy—one person who knows what she wants to express. It's great if everybody on the team understands that vision, but chances are that at some point, people will lose sight of it.

[5.4] An element of the game might work really well in the sense that players like it; it's fun and it seems to do the right thing. But this can be very misleading, and it's crucial to keep things coherent, to always ask, "Does it make sense? Does it really work that way?" For example, players thought that catching the cute demon that

represents the ultimate high restores their health because it caused the world to change state from psychedelic to normal, and in normal state, health generation set in. On the one hand that was a good thing, because it gave players an incentive to catch the cute demon, which was what we wanted, because that modeled junkie behavior. But on the other hand, they did it for the wrong reasons! That a high gives you health doesn't make sense at all; this is not how it works.

[5.5] Also, metaphors tend to develop a life of their own. The scary demon that represents the craving has a literal as well as a symbolic meaning. He's the craving, but also a scary monster. The team considered the idea that it should reduce health to make players more afraid of it. It seemed logical since a scary monster should be capable of physically harming the avatar. However, this was incompatible with its metaphorical meaning because craving a drug is not unhealthy—only taking it is. It's the task of the vision guy to prevent mistakes like these from happening. The vision guy doesn't need to be the same person who had the original idea, but she needs to understand the concept and its interpretation so fully that she is able to ensure a coherent procedural representation of it.

6. Facilitating creativity through tools

[6.1] **Q:** How did the development tools help in achieving the type of innovative game that you were aiming for? How can these tools constrain the design of a video game?

[6.2] **DR:** We used Gamemaker for *Akrasia*, and it provided the flexibility we needed. The emphasis was on design and art, not so much on fancy technology. *Akrasia* is actually a really simple game. There weren't any features we wanted to include but couldn't, so I wouldn't say Gamemaker constrained our design choices.

[6.3] The constant call for new technology draws attention away from challenging our system literacy skills. There are so many ideas out there that are never or rarely tackled in games because they are just really hard to get a grip on. It's tough to identify the essential elements of faith, dignity, or love. It's extremely challenging to explore and finally understand your own experiences well enough so you can grasp their procedurality and turn them into game. What are the mechanics of your screwed-up relationship? How does it work? On the other hand, more and more game designers and players make sense of their everyday experiences by making games about them. They do that with very simple tools.

[6.4] In my opinion, every tool that allows you to represent a complex system is good enough to start with, because the challenge first and foremost lies in having a long hard look at life and making sense of it. Technology can make it pretty, but the

designer has to make it *real* first, by figuring out what's going on, what the system is, how it works.

7. Affordable tools, distribution channels, and art house games

[7.1] **Q:** Making a video game and distributing it have become relatively easy. There are plenty of affordable, if not free, tools available; most of them have online tutorials along with development communities providing support. It is also easier to distribute video games to online communities, with video game portals such as Newgrounds or Kongregate, as well as Xbox Live Community games. How do you think this new ease of distribution may encourage (or discourage) innovative games? Do you think that the accessibility of production tools and distribution may foster the proliferation of art house games?

[7.2] **DR:** I definitely think that easy access to such tools will significantly contribute to the development of new game ideas and genres. It will help the medium to mature. As people become more system literate, either through making games or playing and reflecting on them, making sense of everyday experiences by seeing the systems behind them becomes second nature. The diary might move from the literal to the procedural realm as people make games to structure their experiences. Discovering the nature of regret (Jason Rohrer just made a cool game based on that concept, called *Regret*

[<http://www.escapistmagazine.com/articles/view/editorials/gamedesignsketchbook/5037-Game-Design-Sketchbook-Regret>]), embarrassment, or pride by making games with simple tools and sharing them with a community of peers will change how we think about games and will help us to tap more fully into their potential as expressive media. Maybe these games will have their flaws as games, and many of them will not be considered "art house" at all, but that doesn't matter. It will expand their thematic range and get people to see that games don't have to be about killing things.

[7.3] I'm teaching game design workshops in Austria, and the participants are often people who haven't had a lot of exposure to games before. Some of them are a bit wary of games' capability to tackle and convey profound ideas. But once they are faced with the task of making a game about a socially relevant theme, their perception changes completely. They stop thinking about their ideas of what games are and start thinking about their potential, what they could be. Suddenly, they take games seriously as tools for expression. It all depends on what ideas you set out to deal with and how much you want the game—not just the fiction—to really get that idea across.

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Interview

Interview with Tony O'Driscoll

TWC Editor

[0.1] *Abstract*—An interview with Tony O'Driscoll, a professor at Duke University and a consultant in corporate innovation.

[0.2] *Keywords*—Games; Video game

TWC Editor. 2009. Interview with Tony O'Driscoll. *Transformative Works and Cultures*, no. 2. <http://dx.doi.org/10.3983/twc.2009.0103>.

1. Introduction

[1.1] Tony O'Driscoll is professor of the practice of business administration at Duke University's Fuqua School of Business (<http://www.fuqua.duke.edu/>) and a consultant to corporate organizations in the areas of organization learning, knowledge management, change management, business strategy, technology disruption, and corporate innovation. Professor O'Driscoll has recently coauthored the IBM Institute for Business Value's paper "Leadership in a Distributed World: Lessons From Online Gaming" (http://www-935.ibm.com/services/uk/bcs/pdf/report3g510-6611-00_leadership-online_gaming.pdf) on the applicability of massively multiplayer online role-playing game (MMORPG) practices to the corporate organization.

[1.2] Tony O'Driscoll's blog can be found at <http://wadatripp.wordpress.com/>.

[1.3] *The following TWC editorial team member contributed to this interview: Mafalda Stasi.*

2. Interview

[2.1] **Q:** I'll start with a fairly open-ended question. In "Lessons From Online Gaming," you make the case for business being potentially transformed by gaming. How about the ways gaming has been transformed by business? And in both cases, is the planned, top-down transformation actually more important or powerful than the grassroots, bottom-up one happening organically?

[2.2] **TO:** Gaming itself is big business, and I have had the good fortune of working as a consultant to companies in that industry.

[2.3] Whether you come at it from the gaming industry perspective or from the perspective of gaming sensibilities making their way into industry in general, at core is the fact that as we move from a world where we connect to the Web to one where we connect through and within it, the enriched communication and social interaction is changing how we live, work, and play.

[2.4] From the gaming industry perspective, it is clear that management understands and values creativity and innovation, and structures groups and rewards in ways similar to what I have observed in games. At the same time, there is a lot of inefficiency that ships with the freight in nurturing human creativity, and gaming industry leaders are looking for ways to become more efficient without sacrificing the creative spark that fuels mass adoption of a new gaming title.

[2.5] On the enterprise side of things, it is clear that most organizations are still operating under the bureaucratic model developed by Alfred Sloan in the 1900s. This system of a "head" quarters where people devised strategy and plans and then hired "hands" to carry out the work, where information flowed from top to bottom and bureaucrats kept score via cash flow and income statements and balance sheets, has pervaded all industries. However, as we have moved from an era of planned, predictable futures built primarily around forecasts of selling tangible goods to an economy that is more service oriented and digitally mediated, things have become less predictable.

[2.6] In the services-driven, information-age economy, the need for collaborative cocreation of new offerings at the edge of the enterprise is becoming increasingly important. This in turn raises the question whether the bureaucracy that was created to optimize efficiency in the industrial age is the best enterprise governance system to drive innovation and creativity in the information age.

[2.7] As we set out to explore the question of what the enterprise of the future might look like 50 years out in an age that is increasingly interconnected, digitally mediated, global, and knowledge driven, it occurred to us that massively multiplayer online role-playing games might be a good proxy to give us some clues. MMORPG players are global, the work they do in guilds is digitally mediated, and the team's roles and responsibilities are always in flux as a result of the personnel available at the time and the nature of the task at hand. So we thought that perhaps this might be a good place to study how work gets accomplished in order to provide some clues as to how the future of enterprise might take shape.

[2.8] So in one sense, gaming is just another industry, but by the very nature of the products that it creates, it is one that is probably more astutely grappling with the optimal structure and incentive schemes to drive creativity and efficiency. However, I believe that many other industries will follow suit. At the end of the day, you can't shrink your way to greatness. Organic growth through innovation is the ticket to larger market share, and companies that take time to understand how collaborative cocreation is afforded via the Web will most likely lead the pack by creating sustainable innovative competitive advantage.

[2.9] **Q:** You point out the many ways in which being a corporate leader and being a MMORPG gamer are similar activities. Yet many gamers define themselves in oppositional, antiestablishment terms: in your study of corporate employees who are gamers, some respondents basically took the position that corporations and gaming have incompatible outlooks. Is it possible to perform the same activities with opposite intentions, and in so doing to bring about opposite outcomes? Can you also tell us a bit more about the ways in which corporate leaders and MMORPG gamers are different?

[2.10] **TO:** Our study clearly showed that the activities identified in the Sloan model of distributed leadership get exercised within MMORPGs. Not only do they get exercised, they get exercised more often than in the real world because of the volunteer nature of guild membership and the speed of progression in game activity. So as a leadership lab, it is clear that the skills associated with enterprise leadership can be exercised via guild leadership in game play.

[2.11] When you talk about gamers being oppositional and antiestablishment, it is important to clarify what they are against. I would say that they are not against creating value, but they are against rules and strictures that are vestiges of industrial-age enterprises blocking them from self-organizing around a given endeavor to create value. There are many Web 2.0 examples that can be cited here, most notably the creation of software such as Linux. The rules of engagement and reputational capital of programmers allowed a ragtag bunch of software developers to self-organize around the endeavor of creating a better operating system. By all accounts, if you look at Linux adoption today, we would have to declare it a success. So while gamers may be characterized as antiestablishment (defined here as the traditional hierarchy and command-and-control resource model), it could be that they have a point.

[2.12] **Q:** Many people have pointed out that Web 2.0 is largely based on voluntary, unpaid labor. In "Lessons From Online Gaming," you point out how work and play "are becoming much more similar than executives might suspect" (3), and you put this in win-win terms: "the game of global business will be more fun, leaders will gain an edge over their competitors, and the odds of seeing the 'game over' message flash on the screen will be reduced" (12). Is there a potential for a negative scenario of

exploitation, power imbalance, and diminishing returns? If corporations extend their influence on individuals through a conflation of work and play, isn't there a danger that it all becomes work and people have no play left?

[2.13] **TO:** Michel Shrage argues that almost all creative endeavors involve play. Play is inseparable from work when it comes to creativity. Play is how children figure things out and how engineers and designers come upon the killer application of category killer product. I think that there is a false dichotomy between work and play. The first bows were devised to be pulled across stringed instruments to make music, then someone figured out you could make an arrow and use the same bow to kill prey to feed your family. The moral of that story is that from play comes utility. Gordon McKenzie, then creative paradox at Hallmark Cards, taught me that, and I am a firm believer in it, having seen firsthand how Shoebox Greeting cards are made.

[2.14] I believe that as we become further immersed in the information age, it will become increasingly important to invoke play into daily work to cut through the routine and mundaneness associated with many analyst-type roles. We are already seeing this pop up in different industries where gaming techniques and incentive schema are being applied for everything from recognizing and naming craters on a newly identified planet to coming up with a commercial spacecraft.

[2.15] **Q:** In your study of 214 gamers-cum-professionals, you do not mention the gender or the race split at all. Is this intentional? Do you think that these variables are not significant in either the corporate milieu or the gaming one?

[2.16] **TO:** Having studied games and virtual worlds for quite some time, it is clear that this is not the domain of 17-year-old, testosterone-overloaded, spotty-faced males. We know the average age for gamers is 30 and that the gender splits roughly 60 percent male and 40 percent female. We also know that increasingly, digital immigrants are pervading the workforce. In *Got Game: How the Gamer Generation Is Reshaping Business Forever* (2004), John C. Beck and Mitchell Wade suggest that there are already 13 million gamers who are gainfully employed in corporate America and that 7 percent of managers are gamers. So we really did not choose to focus on the age/gender questions in our study.

[2.17] With respect to the IBM sample, we sought out executives who had significant gaming experience, so if there was any skew in age and gender, there it was on the basis that our starting sample point was those individuals who had made it up through the ranks at IBM.

[2.18] The key point to make here is that the digital natives who have grown up with multiple digital identities and a multitude of mechanisms for coordination and

communication are going to demand that their enterprise provide them with at least as good a collaboration infrastructure as they enjoy in their private life. Right now I believe it is fair to say that the enterprise infrastructures lag behind the Web 2.0 social media opportunities that corporate citizens enjoy as private citizens. This gap will have to be addressed if today's blue-chip enterprises hope to continue to attract the best and brightest creative professionals into their ranks.

[2.19] **Q:** The question of affective engagement is gaining ground in current media study discourse, and it is equally topical for those interested in organizational learning. Henry Jenkins optimistically points out how "convergence culture" can leverage the affective engagement of, say, a young Harry Potter fan to help her learn to write better through fan fiction. Yet at a recent conference, you pointed out how many of our current institutional educational practices are counterproductive, reducing or stomping out any positive affective engagement with the subject. How convinced are you that we can indeed square the circle and channel individual affective engagement institutionally? Or are we ultimately trying to mandate spontaneity?

[2.20] **TO:** Of all industry, I believe it is fair to say that education is the one that has changed the least over time. Before the invention of the printing press, we had a guild system with apprentices at the feet of masters who learned within the context of doing. Rules like "measure twice, cut once" became viscerally clear as the experienced master guided the journeyman through mistakes with words of wisdom that were internalized right at the point where the teachable moment appeared. With the printing press, context became separated from content, and declarative and procedural knowledge became codified so that it could be taught in the classroom. This was a good thing in that it allowed access to so many more people who had a hunger for learning. It was a bad thing in that the classroom model can only go so far in building true competence.

[2.21] There is no mastery without guided practical application. With the advent of worldwide avatar-mediated communication and collaboration, I believe we have the opportunity to usher in a new "guilded" age—one where praxis follows theory, and where those in the know can share with those wanting to know through application and experience while doing. The classroom will never go away. It has its place in building capability, but the virtual world presents a significant opportunity to bring guided, experiential learning back into our instructional approaches. And with it, I believe, will come accelerated learning curves and time to competency.

[2.22] **Q:** Let's explore your own subject position. You have a custom-made *Second Life* avatar that looks like you. Are you comfortable with defining your relationship with gaming in affective terms? In other words, would you call yourself a gamer and/or a gaming fan? If not, what is your view of fans and their activities?

[2.23] **TO:** There is a lot in this question. I have ADD and I am very curious, so I learned early on that I needed to moderate environments as interesting as MMORPGs or virtual worlds. T. L. Taylor has done a lot of research on gamers and gaming, as has Henry Jenkins. I would not classify myself as a hard-core gamer. I actually spend more time in virtual worlds exploring possibilities for learning and collaboration than in the themed fantasy worlds of MMORPGs—not because I don't like them, but precisely because I might like them a wee bit too much.

[2.24] **Q:** A different way of putting the question of subjectivity is, how do you see yourself in transformative terms? I mean, you are both an academic and an industry consultant. How do you morph your theory and your praxis when moving from one activity to the other? Are they two separate areas that require an adjustment in your perspective and practices, or do you see it as a unified field where you move seamlessly and effortlessly?

[2.25] **TO:** I have to borrow a theme or two from Kevin Kelly here. He says that if the Internet has taught us anything to date, it is that we need to get better at believing in the impossible. The Mosaic browser was released on April 22, 1993. It turns 16 this year, and the impact it has had on how we live work and play has been profound. Today, via my iPhone, I have access to nearly every information service I could imagine, and many of them are free. If I had predicted that 10 years ago as an academic, I would have been labeled a fool. Kevin also says that in this day and age what is possible in practice is sometimes not possible in theory. This is precisely why I strive to straddle the fence between academia and consulting. I work hard to bring my empirical side to the trends I see going on in industry in order to get some generalizable data to substantiate positive movement on the S curve of diffusion. I would be lying if I did not say that it means I am constantly stretched, but I'd also be lying if I said that I did not love the challenge. Just like the magic circle in game design, this delicate balance between theory and practice keeps me in the flow.

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Interview

Diane E. Levin: Child's play as transformative work

TWC Editor

[0.1] *Abstract*—An interview with Diane E. Levin, a professor of early childhood education and a renowned expert on media consumption by children.

[0.2] *Keywords*—Child development; Media industry; Video game

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<http://dx.doi.org/10.3983/twc.2009.0105>.

1. Introduction

[1.1] TWC is delighted to present a special video interview with Diane E. Levin (<http://dianeelevin.com/>), a professor of early childhood education at Wheelock College in Boston, Massachusetts. Dr. Levin is a renowned expert on children and media consumption, and she has dedicated her career to helping parents, teachers, and scholars understand and mitigate the harmful effects of media violence, sexuality, and consumerism on child development. Her latest book is *So Sexy So Soon: The New Sexualized Childhood and What Parents Can Do to Protect Their Kids* (with Jean Kilbourne), and she has written or cowritten seven other books, including *From Conflict to Peace Building: Lessons for Early Childhood Programs Around the World* (with P. Connolly and J. Hayden); *Teaching Young Children in Violent Times: Building a Peaceable Classroom*; *Remote Control Childhood? Combating the Hazards of Media Culture*; and *The War Play Dilemma* (with N. Carlsson-Paige). She travels nationally and internationally to present her work, and she has been regularly featured in news outlets such as CNBC, CNN, *Good Morning America*, the *Today Show*, NBC's *Nightline*, National Public Radio's *All Things Considered* and *Talk of the Nation*, the BBC, the Canadian Broadcasting Corporation, *Time* magazine, the *New York Times*, *USA Today*, the *Boston Globe*, and the *Washington Post*.

[1.2] Among her numerous public and activist projects, Levin teaches a summer institute on media literacy and leads an annual service-learning program to Belfast entitled "How Early Childhood Programs Can Help Communities Affected by Conflict Heal: Lessons from Northern Ireland." She has consulted for the PBS Parents Web site and *PBS Families* magazine, has done work for the American Psychological Association

and *Consumer Reports* magazine, and cowrote "The SOFAR Guide for Helping Children and Youth Cope with the Deployment of a Parent in the Military Reserves" for Project SOFAR (<http://sofarusa.org/>). She has also testified before the U.S. Senate Commerce Committee and the Massachusetts Legislature on the harm caused by marketing to children. She is a founder and active member of the organizations Teachers Resisting Unhealthy Children's Entertainment (TRUCE) (<http://truceteachers.org/>), which prepares materials for parents on the media and consumerism in their children's lives, and Campaign for a Commercial-Free Childhood (CCFC) (<http://commercialfreechildhood.org/>), which advocates against the commercial exploitation of children.

[1.3] We hope that this interview will bridge the fields of game studies and child development, two areas with intersecting concerns but divergent traditions. In the video below, Levin speaks with Julie Levin Russo about the importance of play in childhood. She explains why computer and console activities aren't adequate to the cognitive processes that children use to understand their world, crippling their ability to build critical approaches to media in later life. While transformative uses of video games are often valorized, we need to recognize that transformation is a complex skill that begins with games in their most basic material form. Here, we discuss why an awareness of the specificities of children as viewers, users, and industry targets is crucial to fostering positive relationships to technology.

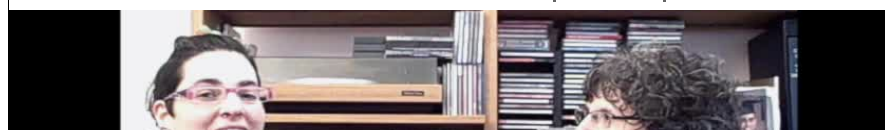
[1.4] Diane E. Levin is TWC staffer Julie Levin Russo's aunt, and we found it very gratifying to work together on this project.

2. Interview



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Book review

Second person: Role-playing and story in games and playable media, edited by Pat Harrigan and Noah Wardrip-Fruin

John Finlay Kerr

Australian National University, Canberra, Australian Capital Territory, Australia

[0.1] *Abstract*— Pat Harrigan and Noah Wardrip-Fruin, eds. *Second person: Role-playing and story in games and playable media*. Cambridge, MA: MIT Press, 2008. \$40 (408p) ISBN 978-0-262-08356-0. <http://dx.doi.org/10.3983/twc.2009.0095>

[0.2] *Keywords*—Computer games; Game studies; New media; Playable media; Role-playing game; RPG; Video game

Kerr, John Finlay. 2009. *Second person: Role-playing and story in games and playable media*, edited by Pat Harrigan and Noah Wardrip-Fruin [book review]. *Transformative Works and Cultures*, no. 2. <http://dx.doi.org/10.3983/twc.2009.0095>.

Pat Harrigan and Noah Wardrip-Fruin, eds. *Second person: Role-playing and story in games and playable media*. Cambridge, MA: MIT Press, 2008. \$40 (408p) ISBN 978-0-262-08356-0.

[1] *First Person: New Media as Story, Performance, and Game* (2004), the collection preceding this present one (also edited by Noah Wardrip-Fruin and Pat Harrigan), was a vibrant discussion about the expressive potential of new media forms, and how any true electronic literature of this century is likely to be manifested as games: stories told in the first person through configurative acts. *Second Person: Role-Playing and Story in Games and Playable Media* is not a direct follow-up but a level up, an expansion. Unlike *First Person*, *Second Person* does not constrain itself to new media but extends the ideas of playable media more widely into other areas like role-playing game (RPG) narratives, collectible card games, improvised theater, hobby toys, and the stories told through and about all of those. *Second Person*, then, is about the role-playing "you" (the player-character) in these interactive narratives.

[2] Second-person gaming, in all its permutations—from the perennial *Dungeons & Dragons* (TSR, 1974) to the massively multiplayer online (MMO) game *Uru* (Cyan Worlds, developer; Ubisoft, 2003)—is given the academic and critical attention it deserves as a phenomenon beyond the pure gaming aspect: game playing and storytelling overlapping and merging into something recognized as an amalgamation of

both systems. In this volume, the hobby game medium is given its due, acknowledging its formative influence on the wider digital gaming industry, and how it entwines with text adventure games and early multiform narratives (such as the once-popular Choose Your Own Adventure books).

[3] Fan fiction based on licensed tabletop games is sadly not addressed, but *Second Person* lays groundwork for this in its discussions of authorized spin-off novels of RPGs and their implications as jointly creative works (in particular the chapter by fantasy author George R. R. Martin); one essay by a schoolteacher, Sean Thorne, even documents using a live action role-playing (LARP) game—John Tynes's *Puppetland* (Hogshead, 1999)—in classrooms to fuel creative writing. But this is almost beside the point: *Second Person* is about writing our own stories into existence through popular gaming properties, or at least preconfigured rules, and in this way, they already hint toward the transformational, the playful appropriation of content and components.

[4] In fact, fans taking their favorite game systems and adapting them could be seen as a subgenre of transformational texts, as of course could games that other fandom sources have been transposed onto, like making a game of the TV show *Supernatural* (2005–present) from an existing RPG system. That is, both subject matter and mechanics can be redesigned as fan-made works. *Second Person* discusses some of the independent scene that has arisen in RPG design since Wizards of the Coast (a major publisher and division of Hasbro) opened up its signature *d20*, or 20-sided polyhedral die, system for others to use (note 1). There is also an article by hobbyist indie designer Paul Czege, whose *My Life With Master* (Half Meme Press, 2003) emphasizes the *protagonism*, or personality, of the character from the get-go. This is in contrast to the traditional approach, whereby identification forms across time at the roll of a die. Czege discusses how (and why) he innovatively uses the main character's inner life as an implemental part of game mechanics.

[5] These smaller cult designers seem to be bigger on story, perhaps because this is the only way in which to compete, or because these are largely labors of love, or both. In *Second Person*, Greg Costikyan refers to these designers as being from the gamist-narrativist-simulationist approach (established by Ron Edwards). While this would appear to support the best of everything, Costikyan criticizes their focus on narrative, and their conviction that game play and storytelling are not inimical. Thus the unavoidable argument between ludologists and narrativists rears its Janus head in *Second Person*.

[6] Ludologists claim that games and story are separate things, in and of themselves; narrativists claim that games are a form of narrative. While I agree that games do not require a narratological approach to legitimize them as objects of study, the connection between game play and storytelling is self-evident. In fact, the debate

has become wearisome; Janet H. Murray (2005) herself—regarded by many as one of the most influential women in games—has called for an end of the schism. Anyone who thinks that the unique constraints of game play cannot possibly be used to best structure a story has probably not encountered *Braid* (Jonathan Blow, developer; Number None Inc., 2008), which marries pure mechanics and story into a philosophical platform. Narrative in games is no longer confined to the clunky cinematics of the arcade game *Dragon's Lair* (Advanced Microcomputer Systems, developer; Cinematronics, 1983), and regardless, narrative is more in what we bring to games: the stories we instill, the ways in which we play. There are people who fondly remember their virtual pets from the 1990s, and Steve Meretzky's chapter about Floyd (from the game *Planetfall*, Infocom, 1983) details the emotional effect that that doomed little robot had on players, which set the benchmark for richly developed characters who can drive a game's narrative.

[7] Part and parcel of this argument are the definitions of game, and which one works best. It seems oddly fitting that the definitions of game can be negotiable and have exigencies, like games themselves. *Second Person* favors the narratological side but never fully reconciles the old game/story debate one way or the other. Or rather, while the individual jurors may have decided, the jury itself is still out. This is a huge advantage of *Second Person*: the dialog of responses, the debates we encounter, activating them as we read, from one essay to another. These are not direct rebuttals but the links and interconnections that we come to by ourselves as we make our way through the book.

[8] Reading *Second Person*—its gamut of varying voices and perspectives—is an individual experience. Praise for its predecessor compares it to a shining symposium, held in a vaulted auditorium (from the blurb, by Jay David Bolter, Wesley Professor of New Media, Georgia Institute of Technology). *Second Person* is more like what it describes: texts that are not hidebound. I actually found that *Second Person* resisted being read linearly. I preferred delving right into the thick of it, following branching arguments and using multiple bookmarks.

[9] One cannot judge (or review) a book by its cover, but it is safe to say that the sheer squareness of this book, the size and shape of its bindings, helps allow for this type of parallel processing: the dual columns, the scripts and extracts, the running commentaries—especially where the sidebars run onto second pages. Its effect in full is kaleidoscopic (although, of course, skillfully contained). Thus, I would imagine that most people's paths through the collection will be unique and nonlinear as well. Readers will dip in and out of various sections, make multiple passes, and then double back to check nothing has been missed, no paths skipped. In this, it is very much about *you*.

[10] This review, then, concentrates on the essays that are likely to be most relevant to you—the parts that are pertinent to fandoms, and about the transformative elements of playable media. It is impossible, in this space, to review each and every contributor to *Second Person*, because there are nearly 50. To pull out the individual arguments (and each essay is highly idiosyncratic, in length, form, and viewpoint) would require a review the same size as the book itself. But that is part of the structure of *Second Person*, its multiplicity of ideas. This is something to be excited about, and it literally invites us to come and play: RPG games are included in the appendix.

[11] Each contribution is clear and straightforward, like individual squares on a checkerboard. The contrasting voices are conversational, giving the same constructive sort of noise one expects from a game meet. There is a good balance of theoreticians and practitioners. Various, the contributors are renowned academics (including Marie-Laure Ryan and Lev Manovich), fiction writers (including John Tyne and Joe Scrimshaw), and designers (including Nick Fortugno, James Wallis, and Steve Meretzky) of both computer and tabletop games. This offers a healthy range of different viewpoints—from diametrically opposed vis-à-vis the issue of story versus game play to a combination of the two, the viewpoint I share. The book itself is divided usefully into three sections: one on paper-based RPG games, one on computer-based games, and one on their interactive and improvisational equivalents in the real world—that is, performed through live actions or as installation theater.

[12] One surprise presence is Kim Newman, which—because I'm a fan of his works, and the works *in* his works—came as a delight. Newman writes some of the best Wold Newton Universe stories, which involve putting new characters and old favorites into intertextual, cross-genre shared worlds that often transcend any one given form of literature. (Imagine Raymond Chandler meets Rudyard Kipling meets Bram Stoker meets Enid Blyton, with *Doctor Who* tie-ins and *Warhammer* RPG novelizations all folded in for good measure.) Newman's works are well worth the attention of die-hard fans of *being* fans; they are both highly literate and suffused with popular culture. Newman is also an academic in his own right. His chapter is an exegesis of his postmodern Choose Your Own Adventure-style novel, *Life's Lottery* (1999), and can be faulted only for being too humble and not doing justice to that book's inner games.

[13] George R. R. Martin (author of the epic Song of Ice and Fire series) is another fantasy writer featured. In *Second Person*, he gives a personal account of the close-knit RPG gaming culture that gave rise to his Wild Cards shared-world anthologies, 19 of which have been published to date since 1987, with 2 being released as electronic books. It makes for an appealing history and insight into the process, although I did

not find his "virus catalyst" for superhero powers to be quite the dam-buster of comic book conventions that Martin insists it to be.

[14] However, the inherently interesting point about the Wild Cards series is the issue of how well tabletop game stories might transfer to so-called normal fiction, and the trade-offs between what is most effective in each. Martin details the early debates between contributors and friends about whether to merely write up previous favorite adventures or to write entirely new material. In the end, the group adopts a happy medium in which their own fictions play toward an end goal, in a mosaic manner that best resembles the social climate of gaming through which the Wild Cards shared world came about.

[15] Similar challenges come to the fore in other creators' contributions, such as Lee Sheldon's account of adapting an Agatha Christie novel into a computer game. His essay makes a succinct but thought-provoking case for the usefulness of nonplayable characters (NPCs) when properly deployed as part of the overall story dynamic within the game play. He gives us a behind-the-scenes look at how the NPCs in this classic whodunit are designed to be played *with*. It also explains how the conventions of the story and restrictions of the game are actually advantageous to each other in translating a whodunit: how the "dark and stormy night" suits the confines of the game world, and how the investigation is well matched to the exploration format. The player is an amateur detective, and to paraphrase Sherlock Holmes, the game's afoot.

[16] By contrast, video game designer Jordan Mechner provides a postmortem on *Prince of Persia: Sands of Time* (Ubisoft, 2003) that emphasizes the technical side of the production process, unabashedly driven by functions and privileging the practical over the storytelling, actually stating as a golden rule that "Story is not King" (112). As a gamer who loved the swords, sandals, and sorcery of *Prince of Persia*, this took me by surprise, although I should have expected no less from such a megacommercial mainstream success. Mechner provides an exposé of the industry's nuts and bolts, which—make no mistake—is still impressive, if somewhat deadened for all the dissection.

[17] In the second section of *Second Person*, computer games are discussed as being very much indebted to hobby games of the dice and pen-and-paper variety. They evolve out of tabletop role-playing, making full use of computational powers for calculating and simulating game worlds, and the encyclopedic, procedural power of computers to enable hypertextual storytelling. These are clear advantages, and they touch on the central concerns of writing. Of course, these tools, this technology, are also in our hands. Stuart Moulthrop writes that "most [artists] who move in this edgy space are amateurs, obsessives, and/or academics" (149), which probably involves

fans as well. Self-reflexively, the reader-writer culture includes the creators and designers, but it also implicates the players themselves: writing through interaction.

[18] Much of the second section critically analyzes the technical aspects, the writing and interactive tools: the programming. This includes Director 7, a program that creates cinematic hypertexts (discussed by Marie-Laure Ryan) and the Soft Cinema Project (introduced by Lev Manovich), which is simultaneously a database and an artistic movement. A computer language designed for interactive storytelling (called "Deikto") by Chris Crawford is discussed, as is D. Fox Harrell's GRIOT narrative generation system. Flowcharts and scripts accompany these in sidebars, showing what they can achieve and showcasing passages from some of the results.

[19] One aspect of these essays that I found incongruous (and slightly discouraging) is how much it appears that this vibrant, lively new medium concentrates on death and bleak determinism. Themes included a dying man's flickering final thoughts, the loss of a child and consequent downfall of a family, murder mysteries, and vampire clans (which are awesome, but fatalistic). Not only is this theme downbeat, but it also almost seems like a hasty retreat from the fresh possibilities of the medium: a return to older, established ways of structuring narratives, with closure always smack at the forefront. It paradoxically also reinforces the (admittedly unfair) stigma that surrounds computer games as "killing simulators." Why must there be an end in the (gun) sights?

[20] Costikyan suggests early in *Second Person* that massively multiplayer online games are "devoid of story" (9) precisely because they are never-ending, but it is also possible to see this from the opposite direction: that the never-ending natures of *EverQuest* (Sony Online Entertainment, 1999) and *World of Warcraft* (Blizzard Entertainment, 2004) are already showing us it is possible to have stories without the antiquated notions of closure. In this way, MMOs can only be devoid of story inasmuch as the real world is. The old published-word mentality that the story's over when the book is closed is perhaps vestigial, or at least no longer necessary. The story can carry on, even when we're not there—while we're sleeping, working, or going about our daily lives. The story world does not stop turning because it is a shared process of storytelling through play, and there are many players.

[21] Singular second-person games of course lack these communities of play, that social element to give them a kick. The final section of *Second Person* thus feeds back into the real world again, in pursuit of that live factor, that human contribution. It loops right back into RPGs, rerouting the technology through performance and LARPs and the social aspects of gaming communities online. The pursuit of interactive story—now digitally equipped and cyberenabled—returns to the world, the organic. Inherent in this, and of interest to fans, is how tabletop games, computer games, and new ways

of storytelling all fold into each other. What does this hold in store for fans? Perhaps, in a paraphrasing of John F. Kennedy–style rhetoric, we should ask the opposite: what wonderful things to do fans have in store for playable media? The underlying message of *Second Person* leaves this open for you to decide.

Note

1. See *The Hypertext d20 SRD* (<http://www.d20srd.org/>) for information on the d20 system.

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Book review

Beyond Barbie and Mortal Kombat: New perspectives on gender and gaming, edited by Yasmin B. Kafai et al.

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[0.1] *Abstract*—Yasmin B. Kafai, Carrie Heeter, Jill Denner, and Jennifer Y. Sun, eds. *Beyond Barbie and Mortal Kombat: New perspectives on gender and gaming*. Cambridge, MA: MIT Press, 2008. \$29.95 (371p) ISBN 978-0-262-11319-9

[0.2] *Keyword*—Video game

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[1] *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming* is a dynamic combination of voices that explore the current state of gender and gaming. The breadth of perspectives contributes to and reflects the changes in gaming since the 1998 publication of *From Barbie to Mortal Kombat*, edited by Justine Cassell and Henry Jenkins. This edition offers an important and comprehensive look at what has been accomplished and what remains to be done for gender equity in the gaming industry. Through essays and interviews, the volume provides support for the argument that although women and girls are more actively engaged in gaming and the creation of games, constraints within the gaming culture and industry continue to make it challenging for them to gain equal access and participate.

[2] *Beyond Barbie and Mortal Kombat* is organized into five sections: a historical review, girls and women as players, girls and women as game designers, the changing nature of girls and games, and industry voices.

[3] In Part I, "Reflections on a Decade of Gender and Gaming," Jenkins and Cassell, Brenda Laurel, and Cornelia Brunner provide a historical, practical, and academic context. Jenkins and Cassell's essay offers a link between the editions and presents

two pressing debates: whether or not girls should, can, and do play computer games; and the concern that women are severely underrepresented in fields of digital design.

[4] Laurel, a pioneer in the gaming industry although controversial in some feminist academic circles, argues for and supports the importance of developing games around girls' interests and play patterns. She provides examples of how developing games with an appreciation—not just an understanding—of differences in game play is imperative to the success of the girl game movement. Closing out part I, Brunner provides a refreshing perspective of the gaming movement through the lens of the LBGTIQ (lesbian, gay, bisexual, transgender, intersex, and questioning) community by separating gender from sex: the butch-femme continuum. Instead of the construct of male and female, Brunner argues that feminine and masculine sensibilities may be more useful in the study of and creation of games, and suggests that because many schools teach technology from a butch perspective, those students with more feminine sentiments are negatively affected. Taken together, the authors in part I provide scholarly and practical perspectives of the gaming movement over the past 10 years.

[5] Part II, "Gaming Communities: Girls and Women as Players," presents essays by T. L. Taylor, Holin Lin, Nick Yee, Mizuko Ito, and Yasmin B. Kafai. Taylor states, "[R]ather than rely on stereotypical or essentializing stories of gender, we can see how becoming a player takes place through a web of networks, practices, possibilities, and technologies" (62). Gaming not only occurs in a multitude of contexts, but also embodies different ideals depending on where the games are played. For example, Lin's study of Asian players identifies how constraints of the external environment impact virtual game play for girls. Yee and Ito further support the idea that context and culture play an ever more important role in why, where, and how girls participate in various gaming environments. Taylor's research, meanwhile, underscores the importance of providing entrance points into the gaming community for girl and women gamers.

[6] Kafai's chapter, "Gender Play in a Tween Gaming Club," considers where gamers get their insider knowledge. By analyzing gaming practices in *Whyville*, a tween and teen online virtual space much like *The Sims*, the study provides useful insights into how young people learn games and share gaming capital. The findings suggest that sharing of information is not on the basis of gender, but rather proximity and previous game play. Students who sat together while engaged with online play were more likely to ask questions of those students who sat closest to them. Participant questions and interactions did not reveal a clear gender divide. This study emphasizes the importance of the context of the game play and suggests that gender differences during play are not always obvious.

[7] In sum, part II provides a glimpse into how various networks and environments both celebrate and restrain women and girl gamers around the world, and makes it clear that women need representation in gaming communities, if we want and expect more women and girls to participate. It also raises questions as to the best methods for studying gender differences in gaming communities.

[8] Part III, "Girls and Women as Game Designers," consists of four essays. The first two, "What Games Made by Girls Can Tell Us" by Jill Denner and Shannon Campe, and "Gaming in Context: How Young People Construct Their Gendered Identities in Playing and Making Games" present findings from studies conducted in school contexts. They provide interesting insights into the types of games girls like and the types of games they create when given the opportunity to do so. The challenge here, however, is that both studies occur in a school setting. If context of game play and game creation are important, wouldn't the school environment also lend itself to the creation of certain types of games? In other words, it appears as if the context of the studies may have affected the choices made by the game creators. This limitation of both studies is not addressed by the authors. Nevertheless, the studies do offer insights about how young people construct gender identities in a larger cultural context and how this influences game design and play decisions.

[9] Tracy Fullerton, Janine Fron, Celia Pearce, and Jacki Morie's "Getting Girls Into the Game: Toward a Virtuous Cycle" and Mia Consalvo's "Crunched by Passion: Women Game Developers and Workplace Challenges" both address issues faced by women who are interested in working in the game industry. Fullerton, Fron, Pearce, and Morie provide a convincing argument for the role of academia in creating pathways for women who wish to pursue professional careers as game designers. Changes in course offerings as well as the creation of new majors are an important step toward improving entrance opportunities for women.

[10] Consalvo's chapter is an eye-opening, although not surprising, glimpse into the gaming industry's current cultural climate. In essence, the industry provides little opportunity for balance. Quality-of-life issues deter many women from entering the industry, and those who do find it difficult to stay. The chapter focuses on Stuart Hall's theory of media production and reception by exploring the dominant ideologies at play within the gaming industry. The nature of game development (consistently releasing new games) creates an environment where production cycle times are accelerated and rapid turnover of employees is the norm. Thus, while many enter the industry because of their passion for gaming, there are larger institutional issues at play. With work weeks in excess of 80 hours, passion for game development is not enough to keep women in the gaming industry.

[11] Part IV, "Changing Girls, Changing Games," provides a plethora of research methodologies for studying middle-school students' play differences and preferences. Understanding what motivates young women to play is a consistent theme in the studies presented in this section. What is most striking about the studies are the extensive and comprehensive design methodologies. Of particular interest are Caitlin Kelleher's use of storytelling as an aid to assist girls in learning programming, and Mary Flanagan and Helen Nissenbaum's values at play (VAP) methodology for developing enjoyable games that emphasize social values. The values defined by VAP vary by project; the authors provide a methodology, not the specific values to be studied. The chapters could be considered required reading for those considering methodological issues in gender and gaming research design.

[12] Part V, "Industry Voices," is an amalgam of interviews with gamers, game designers, game developers, and industry executives. It is apropos that the edition should conclude with practical perspectives of the gaming industry. While academic theory can inform and even shape the gaming industry, it is the everyday experience of those working in the industry that provides the insider understanding. Interviews with Megan Gaiser, Morgan Romaine, Sheri Graner Ray, Nichol Bradford, and Brenda Brathwaite showcase the diverse experiences of women who share a passion for gaming. It is apparent that the journey for each woman is unique. For example, we discover that Braithwaite, the developer of *Playboy: The Mansion* and now a professor, found her first job in gaming serendipitously, while Bradford's passion for technology and storytelling led her to gaming. Gaiser's leadership role as president and CEO of Her Interactive is shaping a more family-friendly gaming work environment.

[13] *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming* inspires both gamers and nongamers to consider how gender shapes and constrains our choices of play. The variety of voices represented in the edition elucidates, challenges, and encourages both novices and experts to consider what gaming will be like in the years ahead.