Let me say right off that I have no problem with critical attention to game design. It’s just that I find the creativity of players more interesting, how they use computer games as platforms for creating their own games, narratives, texts and performances. So what I would like to do today is talk about why some players of computer games play for other players. Think about this for a moment. It is a form of performance mediated by computers, yes, but more than that, much of the fascination is not so much with the artifact that is produced (as with say, digital animation) but with the activity of the player, with what that person is actually doing at their computer. Often, the screen you watch as a spectator matches to a great degree, if not exactly, what the player sees while playing. You are watching what I have called “high-performance play,” encompassing not just the player as a kind of theatrical performer, but also that player’s mastery of computer technology and gameplay.

So, what are the origins of computer-based gameplay as performance? Why did some players become extroverted, while others became spectators? I will argue that players who create and circulate their performances have reworked diverse practices from hackers, fans, athletes, and actors in response to adaptive problems associated with computing technology. Let’s take a closer look now at the history of these “community players.”
The impact of player creativity on the cultural economy of game design is well-documented, particularly with respect to "modding," the modification of game software and assets. When id Software released *DOOM* in December, 1993, it openly embraced revision of the notion of game authorship and modification of its software by the player community. This loss of authorial control has not really been a dilemma for game designers. John Carmack, the lead designer/programmer for *DOOM*, cut right to the point in his widely circulated challenge to game designers:

There is not a hell of a lot of difference between what the best designer in the world produces, and what quite a few reasonably clued in players would produce at this point.¹

Carmack's first-person shooters were never interactive texts, but stages or arenas. Whether the narrative thread in single-player, or winning in competitive modes such as deathmatch, player performance enacted Carmack's games. That's certainly true. But here he means more than that. Carmack put his particular touch on game design by encouraging players not only to act out, but also to act on id's games, to become directors or stage designers as well as enactors.

Ok, fine, modding dissolves the game designer as an author figure; that's enough to convince *me* at any rate that game culture is participatory. Still, I distinguish between modding or even gameplay as a kind of co-creation of player and designer versus gameplay *per se* as creative expression. I want to reveal a performance culture built around replay that has emerged from the use of computer technology for playing games. Though I will consider gameplay as a
spectator sport, this is not a paper about cyberathleticism or e-sports.

Nonetheless, indulge me with a quick analogy from the sports world that might be helpful here. Consider the game of basketball. Ask yourself this: Who was more creative? (1) James Naismith (designer of the game’s source code, the original 13 rules of basketball, in 1891); or (2) Michael Jordan (well, player)? If you need any help, let me prompt you with an amazon.com review of a commercial video on Jordan’s early career: “Footage of the slam-dunk contest alone--where Jordan captured his own goal of taking off at the free-throw line and dunking at the hoop (complete with legs bent back in Air flight)--will leave viewers grinning and shaking their heads. His energy is endless, his creativity self-renewing, and his athleticism graceful and magical.” (italics mine)

On to the player as performer.

We know that in computer games and videogames, the player is more than a consumer of what game developers and designers create -- more than a reader or viewer. The player acts in a liminal space between viewer and spectator. But this does not mean that there are no true spectators, only players who watch themselves. It is important to recognize the extroverted and expressive play performance of those I am calling community players. A community player is part stage actor, part community activist. A player who performs for other players is a community player. So is one who exchanges and enunciates performances for player communities. Recording and showing gameplay is a way for players to express themselves, alongside other activities such as modifying games or posting opinions about them. Yes, the community player crosses from consumer to creator.
It makes sense to begin the history of computer game performance with the first popular competitive game, *Spacewar!*, developed at M.I.T. in 1962. The association of this game with a leading center of computing research connects computer games to the development of computer technology. This relationship led Steve Russell and the other contributors to *Spacewar!* to plant a seed for the notion of games as one kind of performance space: the game as demonstration program. Their enthusiasm for the new PDP-1 mini-computer and Precision CRT Display Type 30, donated to M.I.T. by Digital Equipment Corporation (DEC) was matched by their disdain for previous "little pattern-generating programs" that were "not a very good demonstration." Russell's group believed that a good demo "should involve the onlooker in a pleasurable and active way-in short, it should be a game." Their game superbly showcased the new computer, its graphics, I/O and display technology; they confidently told the new PDP users community that *Spacewar!* “amply demonstrates the real-time capabilities of the PDP-1” and verified “an excellent performance”.

It was not necessary to take their word. *Spacewar!* circulated quickly. It was available in any U.S. computer science laboratory of the 1960s and 1970s. As Stewart Brand reported in an article published in *Rolling Stone*, the community of programmers formed around this game became a community of players. In his reportage of the 1972 *Spacewar!* Olympics competition at Stanford University, Brand verified performance of a different sort. He described players (also photographed by Annie Leibowitz) with sharp competitive skills, "brandishing control buttons in triumph" after winning the tournament, and achieving renown. This public competition introduced the cyber-athlete, but Brand noticed
that hacker performance was not limited to gameplay; it included displays of technical mastery such as a superior programming trick or addition of an impressive feature. *Spacewar!* established computer game performance as a convergence of competitive skill, programming wizardry, and the formation of player communities. Brand depicted *Spacewar!* as a “flawless crystal ball of things to come in computer science and computer use.” True, it “served no grand theory” and was “disreputably competitive.” Yet, Brand could barely restrain his enthusiasm for this evidence of a new culture, part co-production, part player performance. In his eight-point list of *Spacewar!* features, he included the bonding of human and machine through a responsive interface and communication among humans. In “days of batch processing and consumerism,” it was a “heresy, uninvited and unwelcome. The hackers made *Spacewar*, not the planners. We are all Computer Bums, all more empowered as individuals and as co-operators.”

*Spacewar!* exemplified and (arguably) established one of the key modes of game-based performance, that of the demonstration. Originally created as a demonstration of the PDP-1 and CRT combination, it certified games as an optimal demonstration of technology. Brand saw that. So did DEC in its own way. It included a copy of the game with PDP series minicomputers as part of the diagnostics routine for new installations. But *Spacewar!* also established a connection in the other direction; I mean that it did more than demonstrate technology through gameplay, it demonstrated new, computer-mediated forms of play made possible by this technology.
Recasting the player as performer was accompanied by the emergence of a different take on the demonstration program as the “demo.” The origins of the so-called demoscene can be found in practices of game piracy and hacking of the 1980s, particularly on home computers such as the Apple II and Commodore 64. The context for the emergence of demos was the mutual envelopment of gameplay and the mastery of computer technology. During the 1970s computer games, like computing generally, broke out of the laboratory and computer center and entered the living room and study. The drumbeat of Ted Nelson’s Computer Lib/Dream Machines (1974) accompanied this march. Having observed that “wherever there are graphic displays, there is usually a version of the game Spacewar,” he concluded that these “versatile gizmos” could be “turned to any purpose, in any style,” Nelson proclaimed that “computer liberation” would bring this computing power to the masses, who “can and must understand computers NOW.”

From the mid-1970s, hobbyist programmers were introduced to easily mastered programming languages, particularly BASIC, and honed their skills by programming games such as the popular and influential Hunt the Wumpus. The people’s computing movement inspired by Nelson and promoted by the People’s Computer Company and Homebrew Computer Club revved up as the microcomputer revolution opened up access to computing -- and game -- technology. Games inspired hardware development. Consider the Apple II, unveiled by Steve Jobs and Stephen Wozniak at the first West Coast Computer Fair in 1977. Wozniak had designed Breakout for Atari, and Apple’s home computer was nothing less than a Breakout machine, with features such as color
graphics, sound, and paddle support. He acknowledged that many of its features “were built in ... only to do one pet project, which was to program a BASIC version of *Breakout* and show it off to the [Homebrew Computer] Club.”

By the mid-1980s, however, the open, cooperative culture of *Spacewar!* and the people’s computing movement collided with a business culture founded on proprietary development and the closed technology of the game cartridge. The failure of the Atari generation of console manufacturers coincided with the success of games such as *Pac-Man*, intellectual properties controlled by closed industrial studios that produced games to be played not toyed with. The next generation of companies, led by Nintendo, carefully guarded their console technology and intellectual property. Games published for home computers followed this business model for the most part, but with the important difference that it was possible, and often acceptable (at least among players) to copy software acquired on formats such as audio-cassettes and floppy disks.

The availability of BASIC interpreters built into most of these machines provided a temptation—changing software as a form of resistance, the 1980s version of taking computer power to the people. Few young players learning to program could resist, and they now had easy access to BASIC listings in game magazines or friends who had already figured out, well, the basics of programming. As they got better at it, they began to disassemble and rebuild programs, cracking code to produce modified or altered games. Some crackers, with names like the German Cracking Service, 1103 or JEDI, acquired reputations, which they often established by adding credits or load screens. In time, crackers began to compete, to play the game of being the first to post a new
title, a competition that intensified during the late 1980s as copy protection systems began to provide more intelligent opponents on this playing field. After cracking a new game, groups celebrated each exploit with ever more elaborate and visually impressive title or load screens, including graphics, sounds, and even animations. These cracktros (cracker intros), as they were first known, became a self-standing form of hacker performance, the cinematic “demo,” on emerging multimedia platforms such as the Commodore 64 and Amiga, the Atari ST and the PC. Demoscene groups competed publicly, especially in Europe and California, beginning in the late 1980s.

Emerging from game culture, demos should be considered among early forms of competition-based performance. Historically, the importance of the demo scene strikes me as being two-fold. First, it fed off the same impulses – playful competition as exhibiting mastery of computing technology – while inverting the classic notion of the demonstration program provided by Spacewar! The hacker was no longer demonstrating the technology; he was demonstrating the hacker. This notion of the demo as a skills demonstration carried important implications for game-based performance, beginning with id’s first-person shooters.

During the 1990s, games developed primarily for personal computers, not for proprietary game consoles, dominated innovation in the development of graphical game engines, the software that controlled the real-time generation of imagery and game physics. By 1992, Carmack had locked with his characteristic laser-like intensity onto the problem of solving the vast programming challenges associated with building realistic and immersive virtual worlds as settings for
three-dimensional action games. He achieved a major milestone with the real-time graphics engine for id’s *Wolfenstein 3-D*, released in May 1992. *Wolfenstein 3-D* opened the door for *DOOM* as the breakthrough of the first-person shooter as a new game genre. Released in December 1993, *DOOM* introduced numerous technical and design improvements over *Wolfenstein 3-D*: a superior graphics engine, fast peer-to-peer networking for multiplayer gaming, a modular design that let authors outside id create new levels, and a new mode of competitive play devised by John Romero called "deathmatch." This batch of innovations immediately transformed competitive multiplayer gaming into the leading-edge genre for computer games during the 1990s.

The introduction of fundamentally new styles of play and modes of content development set the stage for a replay culture built around game movies created in *DOOM*. These were largely demonstrations of gameplay made by recording actual matches. *DOOM*’s unprecedented success as a platform for competitive play heightened interest in the feats of stellar players, as word got out about their prowess in the growing player community. The creation and circulation of reputations was an artifact of the same network technologies that enabled multiplayer fragfests. Sure, players had competed publicly since *Spacewar!*, but networked play by modem or in local area networks increased access to multiplayer competition and thus raised its visibility. Players operated networked games in offices, local area networks, and by connecting up directly with opponents in cyberspace. Teams were formed and also linked up by networks. As id proudly noted in its press release announcing *DOOM*, it "is the first game to really exploit the power of LANs and modems to their full potential."
In 1993, we fully expect [it] to be the number one cause of decreased productivity in businesses around the world." Id hinted in this announcement that its high-performance game technology, encompassing immersive realism and multiplayer interaction, would profoundly affect virtual spectatorship as well as gameplay.

"You can see the other player in the environment, and in certain situations you can switch to their view. This feature, added to the 3-D realism, makes DOOM a very powerful cooperative game and its release a landmark event in the software industry."¹⁰

Players soon exploited fully the ability to record what they called "demo movies" of gameplay. These demos were distributed as discreet files and replayed by other players with a copy of the game. DOOM thus linked multiplayer competition, reproduction of gameplay as demo movies, and a context for spectatorship through the creation of a player community that distributed and replayed these movies. The result was nothing less than the metamorphosis of the player into a performer. While noting the obvious connection of demo replays to demoscene competitions, I must also contrast these recorded games to the work of demoscene programmers. Inspired by hacks such as the “Barney patch” for Silas Warner’s original Castle Wolfenstein (Muse Software, 1981), Carmack himself had often altered his own favorite games. Wolfenstein 3-D, originally an homage to Warner’s game, caused id to extend this practice. Romero viewed DOOM as necessarily an “open” game from the beginning of its development, “because of Wolf3D [Wolfenstein 3-D] -- people figured out how to make maps for it without our help, plus change all the graphics, etc. and we were so impressed that we knew that DOOM just *had* to be modifyable [sic].”¹¹
Carmack’s architecture for *DOOM* simplified the process, separating the core “game engine” from the code for specific “levels” of the game defined by maps, objects, monsters, graphics, sound and so on. Level-specific information was captured in wad files, which were loaded separately into the game to play these levels; editing or creating wad files changed a game’s content without touching the game engine. This neat solution spawned independent and third-party level design. More important for replay culture, it separated the demo or intro movie from the game engine, storing it in a discreet location with its own format, the LMP (“lump”) file. Players recorded game sessions as DOOM demos and played them back inside the game. Yet, while LMP demos were a form of code in the sense of being sequences of commands or scripts that told the game engine what to do, they were not hacks of the game engine itself. They recreated the effects of keyboard and mouse input in effect, recording the player in a pure performance space strictly separated from the region previously occupied by crackers and demoscene competitors.

The intensity and rapid action of *DOOM*’s multiplayer deathmatch and the technology of the player demo also established a performer-spectator relationship based on skills demonstration. *DOOM* required skills. Some players excelled in marksmanship, others in movement tricks, others in stealth and the psychology of stalking their opponents. Star players emerged, and everyone wanted to see them play, to gather insights into their play tactics and possibly learn a trick or two. As BahdKo, a veteran of the *DOOM* demo scene points out, "Use of demos for their educational value has been going on since almost the beginning." Demonstrations of skill by admired players such as NoSkill,
XoLeRaS, and Smight circulated widely. In a typical use of these movies, "a new player who wants to get better requests that a game with a higher-skilled player be recorded, and then the new player watches the demo (where presumably he lost) from the higher-skilled player's point of view, hoping to learn ways to improve his own skill. Such a player is then able to plainly compare his own movement, aim, and possibly strategic ideas with those of the higher-skilled player, enabling him to practice on his own in order to improve or otherwise attempt to adjust his own performance." Demo movies literally certified the status of star players. Beginning in 1994, the Doom Honorific Title (DHT) Program, a game rating system, became "the means by which good players can objectively prove to the world that they are as good as they claim." The certification process explicitly promoted the performance of gameplay through demo movies. Establishing a basis for spectatorship by recording gameplay also encouraged growth of the player community, as individuals and regular teams of players joined together in semi-official "clans" that sought to establish reputations based on superior play.

Id followed Doom with Quake, released in June 1996; it preserved DOOM's modes of competitive play, thus establishing the first-person shooter as a genre. Quake was a technological tour-de-force. Its built-in client/server networking stimulated the popularity of Internet-based multiplayer games, and it offered Carmack's first genuinely 3-D graphics engine, optimized by Michael Abrash. As I have argued elsewhere, customization of Quake became a new arena for demonstrating skill through high-performance play through the use of Quake as a platform for game-based movies, known today as machinima. Immediately
after Quake's release, players formed groups in response to the vast improvement of multiplayer connectivity and chat options over DOOM. Like hacker gangs dissecting the intricacies of computer networks, these Quake Clans shared techniques of high-performance gaming, both play and programming. The Ranger Clan provides a telling example. Arguably the most famous clan of all, the Rangers' top-notch players contributed visibly to the technical community that grew around the game. They had participated in the first pre-release test of the Quake engine distributed to the Quake community. One member designed the original Capture the Flag mod; another founded one of the major sources of information about Quake development, Blue's News; in all, about half the 25 members or so members remained active in game development or went on to work in the game industry. With their reputation for stellar performances as players and programmers already firmly established, they surprised the Quake community in October 1996—barely a month after the commercial release of the game—with an exploit of another sort: the first machinima movie, "Diary of a Camper."

The Rangers' animated short resembles the demo movies of DOOM gameplay, with short bursts of frantic action punctuated by flying blood and bits of body parts. Yet, "Diary of a Camper" breaks with the demo movie as documented gameplay in several important respects. First and foremost is the independence of the spectator's view from that of any player/actor; the movie is not "shot" from the first-person perspective of the shooter. An independent camera view now frames the action. This innovation illustrates Quake's significance as a platform for high-performance play: It could be exploited as a
"found technology" for performances never envisioned by its designers, but discovered by players. Uwe Girlich became the leading technical authority on *Quake* movie-making; he found in his analysis of its new demo format that "player coordinates and the camera positions may be different." This discovery led him to observe that, "for people with too much spare-time *Quake* can replace a full 3D modelling system for cartoons or the like." Even more was now possible, he claimed: "The demo file can contain console commands, which the client runs during replay. With this feature it should be possible to write a screenshot after every time stamp in the demo file. This makes it very easy to create a MPEG movie out of a DEM file." In other words, there were new opportunities for game-based performance hidden inside the *Quake* programming code. One could now with a bit more sleep deprivation encode game movies as video files that could be viewed even by those lacking the game software. Projects such as *Diary of a Camper* and the Quake Done Quick team’s early speedruns showed that play for, but also as the camera could be enhanced by techniques such as recamming and post-production editing with player-created software tools. This was the path that led from demos to machinima.

So far, I have traced the replay culture of game performance back to various notions of the demo – demonstration program, demoscene, demo movie. Performance, witnessing, and validation associated with demonstrations match up well with the notion of games as responses to adaptive problems such as achieving mastery over code and real-time interfaces, while also providing means and motives for community players. And yet, the creation and consumption of recorded gameplay as computer-mediated performance did not spring entirely
from the demo concept. In order to more fully understand the screenplay of replay culture, I need to play a variation on this theme, a different take on replay that I will call “game film.” I like this term because of a historical use that I will reveal momentarily. It also opens up game replay to other historical forms of mediated or archival performance such as televised sports spectatorship (introduced as Ampex’s “instant replay,” first utilized by CBS for a football game telecast in 1965) and practices of “proto-performance” tied to rehearsal and training (as in “studying game film”).

Game film can be associated with the game genre known as real-time strategy (RTS). The historical transition from turn-based, tabletop play (chess, boardgames, miniatures) to multiplayer, real-time computer games was a defining moment for competitive digital games. Yet, RTS games have received relatively scant attention in game studies. This genre can be understood as a transmutation of historical simulations and wargames made catalyzed by computer technology. Real-time strategy games such as Warcraft (not World of Warcraft, the massively multiplayer game built on this franchise) redefined strategy gaming by adding real-time performance of interface mastery skills to a traditional core of contemplative problem-solving and decision-making.

*Warcraft: Orcs and Humans*, the original version of *Warcraft* published by Blizzard Entertainment in 1994, played a significant role in defining RTS as a game form, much as *DOOM* did for FPS games. The team of *Warcraft* developers became its first player community. During coding and playtesting, they learned that multiplayer, networked play transformed strategy gaming. Listen to the words of Allen Adham, one of Blizzard's co-founders:
The multiplayer elements of competitive play that are fundamentally different in RTS games such as *Warcraft* depend on network technology. As Allen Adham, one of the developers of *Warcraft: Orcs and Humans*, the original version of *Warcraft* published by Blizzard in 1994, put it, “The feeling of sitting alone in front of a computer, looking at your screen and realizing that off in cyberspace somewhere there is another sentient being building, exploring, and plotting your destruction was exhilarating. It was a totally different feeling from the hundreds of strategy games I had played against computer AIs, or even multiplayer games where your enemy sat beside you and shared a monitor.”

This insight side-stepped a problem faced by early real-time strategy games such as David Hille’s *Combat Leader* (1983) and *Battalion Commander* (1985); these games suffered in comparison to turn-based games, because home computers of the 1980s could not keep a real-time game moving while at the same time providing a challenging AI-controlled player. Dani Bunten Berry’s *Modem Wars* (Electronic Arts, 1988), *Command HQ* (Microprose, 1990) and *Global Conquest* (1992) solved this problem by introducing the head-to-head multiplayer game. *Modem Wars* was modeled on the backyard play of boys, without "any of the complicated rules and relationships" of wargames. Berry explicitly designed it to reward hand-eye coordination and interface mastery as well as strategic thinking, so that "each person had their own specialized style of play." The technical design of the game made it possible to store data from which replays, or "game film" as Berry called it, could be produced, and these movies allowed players to rerun and study their performance. Berry was amazed at "how people used this opportunity the game
films offered to rationalize their loss and to create stories out of the intense and ephemeral experience of the battle." She believed that player communities would thrive on game film’s capacity to make "legends out of their best performances." Game film was included in both Command HQ and Global Conquest, thus introducing competitive player performance and spectatorship to real-time gameplay -- too soon in fact, because the network infrastructure required for making the reputations of community players was in fact not yet available. But Blizzard's timing was better. Network support has made Warcraft II: Tides of Darkness (1995) and Warcraft III: Reign of Chaos (2002) easy to play with others. As Berry's vision of turning strategy gaming into a space for social performance had predicted, networked players make replay movies for other players to document their prowess. The publication of Warcraft II and Command & Conquer within months of each other in 1995 fueled impulses among multiplayer RTS players similar to those that propelled DOOM and Quake demo movies, but without the linkage to demos, mods, and machinima. In Warcraft III, built-in spectator modes and replay capture, websites for distributing replays and VODs (from Video on Demand), and shoutcast commentaries of games fostered a player-spectator relationship around competitive game performance. While early on, players offered software tools such as War2BNE to capture replays of Battle.net games, it is important to note that for the most part, few RTS replay tools have been player-created.

What distinguishes the “game film” culture of Warcraft from the demo is its reduction of the replay to event capture, and in cases such as VODs simply to screen capture. In this sense, distinguishing demos and game film within replay
culture mirrors Michael Nitsche’s separation of demo and screen modes of machinima production. While RTS replays are often viewed within game software, shifting camera views and choosing which player’s interface screen to view as about as far as manipulation of replay recordings typically goes. Replay cultures built around “game film” and “demo” modes of replay culture seem to have created similar relationships between spectators and players, but somewhat different connections between productions of game-based performance and underlying game technology. Why is this? Perhaps differences of abstraction and representation in these two game genres trump the shared story of deriving replay culture from the performer-spectator relationships embedded in competitive, multiplayer play. For example, the technology of the game “camera” as a first-person view into a world operates quite differently from the relatively fixed battlefield map or televised sports perspective of the RTS game. The historical connection of id’s game technology to traditions of cracking, hacker clans and the demoscene, provides a more direct explanation. Carmack shared a bond with the Spacewar! hackers, Wozniak, and the Castle Wolfenstein modders. He knew it when he read Levy’s Hackers (1984) as a teenager. “At that third section [on the “game hackers” of the late 1970s and early 1980s] I was like ‘Goddammit, I should be here!’ Then about 10 years later, I thought back about it: ‘You know, if there was a fourth section in that book, maybe I would be in there!’ That’s a nice thought.”

The demo emerged from the manipulation of code. The historical context of demo movies and even machinima as performance spaces was shaped in part by hacking, mods and the co-creation of content. Play as performed through the
demo was not just an adaptive response to the computer; it encompassed practices of technological mastery. RTS games began as a remediation of turn-based strategy and wargames, transformed by a syntax of play that introduced mastery of the interface as the adaptive problem to be solved, not control of code. By this I mean the coordination of mouse, keyboard, strategy and reflexes in real-time took precedence over co-production of software programs. The computer-mediated dimensions of RTS play emphasized physicality (reflexes, fast hand movements) absent in "physical," paper-based boardgames and transformed the strategy game into a form of competitive e-sports; game film associated with RTS games documented mastery of this new play form, revealing a particular adaptive response to computing and a redefinition of the mastery exhibited to the player community.

The replay culture of game film and screen capture has gradually supplemented the demo as the basis for game-based moviemaking; screen capture and non-linear video editing are supplanting techniques such as recamming developed for Quake movies and early machinima. It is tempting to view this development as a broadening of appeal, symbolized by the replacement of game scripts by downloadable or streamed movie formats anyone can view. The astonishing volume of movies produced in massively multiplayer games like World of Warcraft (WoW) supports this view. These server-based games deny direct access to code and movie-making in them is thus limited to edited screen captures.
WoW movies made during beta testing of the game generally did not stray far from the replay format. Yet, they pointed forward to different kinds of projects. A player dubbed JuniorX made the first WoW movies to be widely distributed. In July 2003, he had founded the United Canadian Alliance as a Warcraft III clan, but a year later it had morphed into a World of Warcraft guild. Like Quake-based machinima, many WoW movies would be closely associated with clans, in this case a visible guild whose vigilant opposition to player styles such as backstabbing had drawn it openly into inter-guild disputes. JuniorX’s movies introduced potential players to the game, giving an indication of its pace, challenges and tactics through lengthy recordings of adventures encountered in the game. They functioned as leveling tutorials for new players joining the beta test, offering unadorned gameplay starting with initial menu selections in character creation, supplemented only by infrequent text notes on points of tactics and interface, or noting patch changes and bugs. It is clear from the comments on JuniorX’s movies in discussion forums that many of his spectators had not yet played World of Warcraft—after all, the game was still in betatest. Yet it is safe to say that many were avid Warcraft players who, like Jeremy in the Pure Pwnage series, had been weaned on the stark reality television of RTS replays. Despite lengthy download times and lack of personal experience with the game, they eagerly consumed these movies. His movie on the hunter class, for example, which came out in late August, showed every moment in the career of a dwarf character up to level 10 in the game; more than an hour long and claiming nearly 400MB of storage space, it was nonetheless downloaded more than 11,000 times from the warcraftmovies site alone.
These movies recalled both the skill training associated with DOOM demo movies and the replay scene popular among players of *Starcraft* and *Warcraft III*. JuniorX’s early beta Dwarf Hunter, Orc Warlock and other popular PvE movies deliberately followed the narrative arc of character development. The first important aspect of this recorded gameplay was that it could be followed as player biography, easing players from the mindset of competitive RTS games through the familiar settings of the *Warcraft* narrative arc, and onward into an online role-playing game set in the *World of Warcraft*. Second, setting the stage for many others to follow, JuniorX reconfigured the *WoW* replay as entertainment, rather than as demo or game film; as diversion, rather than proof of mastery or skill. His “Dancemovie” and “Dancemovie 2” combined the discovery of dance movements built into the game as animated “emotes,” the presence of other players as co-performers or spectators, and the showcasing of neat tricks and exploits (such as a being able to activate dance movements during combat, a fleeting “feature” quickly eliminated during the betatest) to put together a recorded performance. Such “dance/music” videos became a staple of the *WoW* movie scene, remediating MTV music videos through gameplay set to music, with particular attention to matching lyrics and images, synchronization of character movements to soundtracks, and elaborate choreography of players. “Machinima music videos” have also been made in other games, from *Soul Caliber* to *Battlefield 1942*. For the *WoW* player community, their novelty value dovetailed with practices of replay culture as a means for teaching *WoW* players how to perform for other players in a virtual world.
By mid-September 2005, Warcraftmovies.com had gathered together roughly 3,500 WoW movies, about 250GB and over 400 hours of content; other sites such as IGN’s World of Warcraft Vault, XFire, and Fileplanet offered hundreds of movies. Warcraftmovies alone claimed to have supported about 18 million downloads in its year of existence, an average of nearly 52,000 per day. This number is more impressive when one considers the huge sizes of these video files; for example, a PvP movie devoted to the rogue class was attracting more than 10,000 downloads per day, more than 200,000 in all, despite being a 352MB download. Even with the vast expansion of the audience for these movies, about 30 percent are in the PvP category, with PvE and instance runs following distantly in popularity. Game film, in other words. Less than 10 percent have been put in the category of “story-line” movies, meaning linear narratives presented through recording and editing in-game performances akin to machinima. Other departures from game replay include dance movies and music videos set to WoW footage, and documentary screen captures of in-game activities such as the “naked gnome” protest of 29 January 2005.

Wow replays, from game film to dance movies, have become an important part of this game’s community culture, a community that by the way recently reached a population of six million players. At the same time, and movie makers in Wow and other massively multiplayer games have discovered that as the popularity of game movies increases, their work is constrained not only by technical limitations, but also by social dynamics and politics. In order to illustrate the new performance politics of the community player, I will devote the
last piece of this talk to a detailed example that shows the payoffs and problems he or she faces.

Tristan Pope’s "Not Just Another Love Story" provides a case study of the difficulties faced by the community player who tries to sharpen the edge of game-based performance generally, and movies (or machinima) in particular. A theater student from the City College of New York and co-founder of the Raiders of Goldshire clan on the Lightning’s Blade server, Pope released his first WoW movie, "I Surrender," near the end of the beta period. Completed after playing WoW for only three days, he was inspired by other beta period dance and party movies available around that time, such as Jace’s “Jace in the World of Warcraft” and probably Masse’s “Stress Test Party”. [19] He created the Crafting Worlds website to facilitate the distribution of his projects to the WoW community. With each of his movies from "I Surrender," released in November 2004, through "Onyxia Eliminated," completed in April 2005, he worked through remediations of various movie and video formats, such as the music video, sketch comedy, and guild demo movie. In April, he coyly introduced a more ambitious project, "Not Just Another Love Story":

"I want to give you a full description of this movie, but that would ruin the surprise.
I’ll give you a hint: I only executed what the pixels in WoW suggest ...
And it has something to do with something that was removed in patch 1.3.
Ok, that's all you get!" [23]

Beginning with the disclaimer that “this movie contains material that may not be suitable for all ages,” Pope tells a Romeo-and-Juliet story, with a twist. It
sets up the story by showing his Troll Rogue character, Tristanmon, heading off to work in the desert and settling into another day of creature kills. In the middle of combat, he falls head over heals in love with a human female who can match him kill for kill. Despite the fact that Alliance and Horde characters should not mix, they become engaged and marry. Pope uses editing, character positioning, and carefully chosen camera angles to depict the pair consummating their love in various ways. In a masterfully choreographed scene involving dozens of player-actors, spell effects, cleverly chosen locations, and immense pre-production planning, the highlight of the movie is a spectacular rave during which the Troll emerges from his shell and is transformed by love into a wildly dancing party animal. In a stunning reversal, a few days later his new life is shattered by the death of his spouse in combat, but his luck holds out when she is resurrected by an equally attractive human female, thus providing the basis for this threesome to live happily ever after.

A simple plot summary of “Just Another Love Story” fails to reveal how Pope purposefully sharpened the narrative edge of game-based performance to give voice to the player community, an important characteristic of meaningful fan-created content. [21] The content, visual tactics and subsequent audience reaction to the video activated several neuralgic points for the participatory culture of WoW moviemaking. The story provoked attention to issues of creative ownership of the story world. Since the first Warcraft game, subtitled “Orcs vs. Humans,” the narrative momentum pushing forward the single-player campaign was faction and racial hatred. While the opposed races and their relative moral elevation could be remixed from version to version of the game (such as the focus
on the reawakened nobility in the Orcs of *Warcraft III*), the role of unremitting conflict in shaping the history of the fictive world remained constant and fundamental. As players descended from the strategic perspective of the RTS games to play on the ground in *World of Warcraft*, they discovered that these conflicts had been built into their characters. This fundamental fact of *Warcraft* life translated into the inability of Horde and Alliance characters to communicate directly in-game through language. Chat was impossible, and shouted speech was rendered as unintelligible gibberish; the game software even recognized and filtered out subversive attempts to communicate by embedding text in descriptive gestures, known as “emotes”.

Beginning in the beta version of the game, players discovered that the language of game culture provided means for a system of universal speech. They learned to embed the number- and special character-based misspellings of “l33t speak” in emotes, thus bypassing the text filters and making it possible for, say, trolls to speak with their human enemies. However, this was a clear transgression of Blizzard’s control of the relationship between gameplay and story world, so in the 1.3 patch of the game the development team announced that henceforth “numbers and punctuation will not be passed through chat communication to members of the opposing faction.” In the context of this assertion of Blizzard’s control, Pope’s depiction of the marriage of Troll and Human characters, as well as the massive collaboration of Horde and Alliance players evident in the movie itself, represented an alternative vision of a world favored by some players. In the movie, Pope directed a final comment to Blizzard after the credits had wound down and the waning notes of The Darkness’ “I
Believe in a Thing Called Love” had faded away: “Even without leet speak you cannot take away our love!” From a creative standpoint, the mature content in the video intensified this point, but it also sharpened the ensuing controversy.

Machinima based on massively multiplayer games are constrained by the artist’s lack of access to the artistic assets of the game, in sharp contrast to readily modified games such as first-person shooters. Another implication of this restriction is, as Pope argued with a wink, that he merely showed “what WoW’s pixels imply ☺.” Even sexual imagery, therefore, was merely a rearrangement of what Blizzard had already made. Rather than asserting his right to subvert the game’s content, Pope turned this argument on its head by reasoning that he had in fact created nothing.

Blizzard, ever eager to support the player community, had sponsored Wow events such screenshot and stunt competitions. Community managers also encouraged announcements about new game movies in official Wow forums, allowing creators to provide links to facilitate downloading of movie files. Initially, Pope was allowed to post such a link, but within two days the volume of complaints, flames, and counter-flames about “adult” scenes in “Not Just Another Love Story” caused Blizzard to cite the user agreement concerning language or images that are “pornographic in nature” and lock the discussion thread. It also barred links to any of the movie’s download sites in subsequent discussion threads. [23] The marketing of in-game creativity had collided with the game’s demographics and success, which by then had brought many young players to the player community. Players responded with arguments such as, "How can making an IN GAME movie with only IN GAME animations, on a
forum about THAT GAME be inappropriate?" or took Blizzard’s side, “Let me go take Ken and Barbie at Toys R Us and pose them in sexual ways, and say "But whoamygod~ their joints BEND that way so its not sexually suggestive or inappropriate for us to advertise that way!!! Plus you're overlooking the simple fact that there ARE forum rules prohibiting these things." Before the controversy ran out, two discussion threads devoted to it garnered nearly 800 replies and more than 200,000 views. As for Pope, he questioned Blizzard’s motives for withdrawing its support for his project, musing that "I do not want anarchy, but I also don’t want censorship over something that took what is already in game and just made it more provocative." 

When I started this talk, I described my motivation as learning more about the creativity of players and their use of games as a medium for performance. I have traced the history of games as a performance space and technology through demos, game film, and replay culture. Tristan Pope’s puzzlement about the reaction to his movie suggests that the next challenge for community players will be focused on a different kind of creativity: how to create a medium that provokes and mobilizes an increasingly diverse community of players.
Appendix. Grubby, WCG2004 and the challenge of replay spectatorship

As a competitive game with an enthusiastic player community, *Warcraft* followed *Starcraft* into the realm of high-level, even professional e-sports, especially in Korea and Europe. In 2003, *Warcraft III* joined six other titles in the annual World Cyber Games (WCG), founded three years earlier as the international “Cyber Game Festival.” 74 players from 44 countries participated in the first WCG *Warcraft* tournament, with $20,000 in prize money for the championship. In October 2004, San Francisco hosted the 4th annual WCG. The crucial match from that tournament, the second of three to decide the *Warcraft III* champion, documents how game dynamics, competitive player skills, and spectatorship shaped high-performance competitive play. (Lowood, 2004; WCG, 2004) After three days of competition, this game matched two of the best *Warcraft* players in the world. The favored player, WelcomeTo (aka Zacard; realname: Hwang Tae-Min), was from Korea, the world hotbed of RTS competition with professional leagues, star players, and television coverage. His opponent, [4k]Grubby (realname: Manuel Schenkhuizen) of the 4 Kings clan came from the Netherlands. Played before a live crowd, the virtual *Warcraft* community viewed a webcast with shoutcast commentary, or downloaded replays later from the WCG website. During the match, spectators in the Civic Auditorium also gazed at a neutral observer view of the game map, identical to the webcast and piped to a large overhead screen. Although they could watch the players or marvel at the mastery of their hands furiously clicking away at keyboard and mouse, even those present at the match mostly kept their eyes glued on the avatars in combat on the giant video display.
The set of three matches, which Grubby would win 2-1, revolved around a few pivotal seconds in the second match. As usual for both players, they each commanded Orc armies. About 6 1/2 minutes into the game, spectators observed the following: The armies were skirmishing around Grubby's main base. After some back-and-forth, WelcomeTo's army fell back. His main hero, a "Farseer" was badly wounded, so WelcomeTo used a town portal scroll to teleport his army back to their home base. This they did, and a few seconds after landing, the farseer toppled over, dead. WelcomeTo was unable to recover from this loss, and a few minutes later, he conceded the game. Despite loud cheers from the audience when the Farseer died, only a few expert players and referees immediately grasped all that had just happened. By looking carefully at replays, we can translate these events, which transpired in perhaps 10 seconds, into player actions. Grubby’s own Farseer hero had earlier in the game taken a “wand of lightning” from a gnoll assassin while "creeping," and it sat in his inventory. When WelcomeTo's activated the portal scroll, his Farseer was invincible, but Grubby instantly clicked on his wand (or hit a key selecting it), moused his cursor over WelcomeTo's second hero, a Firelord, then clicked the mouse to cast a lightning shield on him. This shield would now do damage over time to any unit standing next to the Firelord. As Grubby knew instinctively, WelcomeTo’s heroes would land together in their base; instead of finding safety, the wounded Farseer died from standing next to his charged brother greenskin.

A spectator cannot discern Grubby’s mastery of the syntax and tactics of Warcraft from staring at a screen. A replay movie cannot tell anyone what Grubby was thinking as he worked out his strategy; if he clicked on the wrong
unit or randomly cast the spell, everything would look the same. In the Civic Auditorium or listening to the shoutcast, we might fill in a few blanks from the commentator noting “the farseer has fallen” and good work by Grubby,” from the sudden applause and singing by the European fans in the audience or from the pained expression on Zacard’s face. A knowledgeable player, tapped into Warcraft discussion forums and replay sites, knows right away. Grubby had performed. He grasped an instant opportunity, made a preposterously rapid decision in the real-time heat of battle, and applied masterful knowledge of game syntax (the term used by players for micro-management of individual on-screen units) to carry out this game-winning performance. His interface mastery, tactics and strategy translated into a “story” about this match that cannot be isolated at any of these levels. It is hardly true that such competitive gameplay lacks narrative potential, or that we can only describe this game’s meaning—paraphrasing Beethoven regarding one of his musical performances—by simply replaying the game. Warcraft websites and forums offered chronicles of Grubby’s victory. These accounts fit the events of the match into stories such as the amazing comeback, the startling defeat of the suddenly demoralized Korean favorite, payback for the arrogance and hubris of WelcomeTo’s choice of the inferior Firelord as second hero, or even a morality tale on the superiority of quick tactical thinking over high "actions-per-minute" counts. Such stories arranged details of gameplay to fit into discernible narrative structures; they distilled the rapid, perhaps even bewildering syntax and actions of high-performance RTS play through “narrative tactics” akin to what Hayden
White has called “explanation by emplotment” in his seminal work on the structures of historical writing.28

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1 design.http://slashdot.org/comments.pl?sid=25551&cid=2775698
3 (Graetz, 1983)
4 (Edwards, 1962)
5 (Brand 1972, photo caption)
6 Brand 1972, last paragraph.
7 (Nelson, 1974, title page, p. 3, p. 48
8 (Quoted in Connick, 1986, p. 24)


10 "DOOM Press Release" (1993). Preserved in "Lee Killough's Legendary DOOM Archive" by John Romero as part of the "Planet Rome.ro" website. URL: http://www.rome.ro/lee_killough/history/DOOMpr3.shtml. According to The Book of id, the release was issued of Jan. 1993, about a month before the alpha release of DOOM.


12 However, the original version of DOOM was not released as open-source software, and in fact id’s initial stance toward editing of the game code was not quite as encouraging as it has often been depicted. Id issued a “Data Utility License” that allowed modification of the game software under strictly defined conditions. With the release of DOOM II in 1994, Romero released more information about the game program. Carmack released the DOOM source code as a Christmas present to the player community in December 1997.

13 E-mail from Laura “BahdKo” Herrmann to Henry Lowood (28 Jan. 2004). Interestingly, it has long been suspected that some star players abstained from the practice of delivering demo movies of their gameplay in order to maintain their competitive edge. However, such reluctance seems to have been unusual and the absence of demo movies from players such as Thresh (whose fame is based on his dominance in Quake deathmatch) is now seen as evidence that they were not as active in the DOOM scene as word-of-mouth would have it. Thus the importance of spectatorship and community, as well as skill, in achieving the status of a “God-like” player

14 From "Welcome to the DOOM Honorific Titles!," DOOM Honorific Titles website. URL: http://www-lee.eng.cam.ac.uk/~fms27/dht/dht5/#dht5.


18 Adham, quoted in Blevins, 2001
19 Berry, n.d.
21 Carmack 2000.
22 United Canadian Alliance website, retrieved Sept. 2005 from http://clanuca.ca/index.php?content=about&PHPSESSID=23833368b5ff886e3c04ba1f0f1baab7c
28 White, 1975, passim, but esp. pp. 7-11