"Shut Up and Dance:" reflections on real-time synthesis in Machinima production

B. Coleman, MIT

Machinima Reader, ed. M. Nitsche & H. Lowood Stanford University Press (Stanford); forthcoming

Machine cinema killed the video star. It is straight out of game culture that the next evolution of music video has arrived—user-generated, pop inspired, and "mod" all over.[1] Unlike the music videos of the MTV generation that created an image for a song as a form of branded commercial output, the machinima music video weds customized in-game play to user-selected music. Players stop the forward progress of game play to make their characters dance. In the growing tribe of machinima makers, one finds, like other genre of machinima, that the music video evolves from game-engine tools being appropriated by players to create unique content.[2] Across game platforms and choreographic style, the genre presents an infinite replay of two key values that can be described as "excess" and "real-time." The former addresses the diagetic performance of the music video (narrative + game play), and the latter represents the technical process that makes it all possible.

The machinima music video keeps company with audio "mash-ups" in humor and intention.[3] Mash-ups delight by virtue of their innovative use of the lovingly familiar. The machinima music video is similarly, adoringly stupid in its aspirations. Stupid in this case means the maker has sufficient skill and knowledge of how her domain functions that she can flex. This is basic gamer logic. The dancing represents, on one level, a mastery of the commands that control the character. It also demonstrates pure action in the game theatre. Movement for movement's sake. Because video games have particular rules of gravity, behaviors that work toward predesignated goals, to make a character dance is superfluous to game play. While in-game dancing cannot be strictly codified, it has the definite aroma of the victory lap and end-zone dance: people at the top of their game super signifying.

Shut Up and Dance!

World of Warcraft - Shutup and Dance!
3rd of November 2004 | 57 Mb
By: Isparian | Downloads: 88174[4]

[1] Mod in this case is not the retro style of Quadrophenia, of peg-legged pants and motor scooters, but an abbreviation for "modify," as in customize one's program, platform, car (see "pimp"), etc. In a growing experience and conversation around user-generated content "to mod" is the verb of choice.

[2] Henry Lowood in a recent essay describes the growth of machinima production as it is related to the particular platform of World of Warcraft. "Warcraftmovies.com, the best known of these sites," he writes, "was in operation by early October, 2004. 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. The thousands of WoW movies offered today on Warcraftmovies.com has been divided according to categories that reflect the separation of audience interests. This website claims to have supported about 18 million downloads in its first year of existence, an average of nearly 52,000 per day." Lowood, "Story-Line, Dance/Music or PVP? Game Movies and Performance in World of Warcraft," Paper presented at the Aesthetics of Play conference in Bergen, Norway, 14-15 October 2005.

[3] "Mash-up," a phrase first associated with the technique of a DJ placing together the a cappella of one pop hit on top of the instrumental of another, e.g. Missy Elliot vs, Narvina, has now become a more general term for fan produced media characterized by the juxtaposition of two disparate but recognizable popular sources.

[4] http://machinima.com/

The ominous chords of Carl Orff, “Carmina Burana” swell as text scrolls up a black screen, informing the viewer on the state of eternal war that is World of Warcraft (WoW, Blizzard). A swooping camera glides across the animated world, catching vignettes: a Tauren warrior astride a flying griffin, a cut-scene of an Abomination storming a bridge, a human warrior captured at the moment in mêlée when she turns into a wolf. The introduction is edited together in the spirit of the well-crafted trailer or battle for that matter. It is quick, to the point and full of true game grit. “But,” the text continues, “What if for one day every soul on Azerthoth had to SHUT UP AND DANCE.”

The scene opens onto a fur bikini clad female troll, standing atop a hill gyrating her blue derriere to the beat of the Elvis vs. JXL remix of “A Little Less Conversation.” Ironically, or perhaps just for giggles, the track selected is a big beat electronic remix of The King—what one might call an industry supported “mashup”—appropriated for a fan mashup. The video proceeds from there, with different characters undulating, thrashing, and “Cossack dancing” to the music. A female night elf druid, also in bikini, ripples her torso under a wooded canopy while a low-placed camera picks up each curve. A few frames down, a male Night elf does stellar Michael Jackson moves circa “Billy Jean.“ The scene-stealers are pop-locking his/her Gnome rouges in the snow and a Tauren shaman nodding his giant bull-headed to the beat, and of course the mohowked head-banger troll hunter who is more or less beside himself in ecstatic gesticulation. The giant Orc warrior working through his MC Hammer footwork on a sunny mesa is fully hilarious. Burning Man meets Lord of the Rings cross-bred with River Dance all spun into a in a real-time CG hoedown.

The dance moves are </dance>, i.e. designed into the game as part of the set of commands available for a race/gender. In other words, each racial group of the Alliance and the Horde, the two sides engaged in eternal war, have generic dance moves designed for that character template. The male human </dance> pays homage to John Travolta in Saturday Night Fever. The male Troll performs capoeira-based moves, described on the unofficial WoW wiki as “a Brazilian dance of African martial arts inspiration.”[5] The creative act in making the machinima music video in this case is not in writing code for new behavior but in exploiting given properties. How that dance move is expressed, arm gesture, timing, the set to music, the air guitar of the undead male, now that is the work of poiesis.

Technically, each character is played or choreographed by an individual player. The list of credits that follows the short film gives a precise accounting of the terms of engagement. Player Bag’s avatar, undead rouge, is recorded in player vs. player (pvp) mode. Player Ela manipulates a night elf avatar in beta 2. As with Chris Burke’s Halo talk show, My Spartan Life, the movie is made in the course of actual game play, which means this is a live virtual production and people may not hold their fire even if one is shooting a music video. The mise-en-scène reflects this dynamic between the live player/avatar and the camera work. The game allows for a 360-degree rotation of the video game controller that is emulated in the game space. The director's axis of recording is the dancing figure placed in the center of the shot, leaving the camera to move freely around the entire set for a dynamic third-person shot of avatar and surroundings. There are no boom guys or lights or other cameras to exclude from the shot. One of the pleasures of machinima is the freedom of camera movement that is literally unhinged from all claims of physics. The dual movement of animation of character and the shift in camera views of the player build upon each other, as a film would.

WoW, like the machinima seen in Halo or Half-Life 2, is not skinned (skinning means avatar, or world, or behavior is modified by the player in a manner that is outside of the given assets of the game). As with Red

[5] http://www.wowwiki.com/Dancing

vs. Blue, the Halo-engine Rooster Teeth production that is the most popular machinima series ever, what one sees with WoW machinima, and "Shut Up" is no exception, is the retooling of game world primarily through shot selection, editing and working with the actions embedded in the engine. The style of machine cinema made within those engines is dictated by technical framing and often characterized by humor. In comparison, an engine such as Unreal Tournament 2004 (Epic) has great embedded capacity for user modification by way of level building and recently a suite of customized tools for machinima production have been developed.[6] Often, one sees in subject matter and style of machinima a reflection of engine choice: the ones that possess greater code-level flexibility produce more dramas and "serious" short films that are entirely created by the user. In such a case, the engine functions primarily as tool, leaving the game itself fairly outside of the content. On the level of production, such a degree of modification is harder to do with WoW. But aesthetically speaking, it is also less desirable. The references for the WoW machinimas, to borrow a term from literary theory, are intertextual. It is all about game cross-talk with and the secret handshake between players via avatar.

"Shut Up and Dance" as fan culture

"Shut up" is divine as pure fan fiction. It is "slash" machinima. The term "slash fiction" started with the outpouring of pre-Internet fan fiction reproduced on copy machines and sent via mail of Star Trek's Captain Kirk and First Officer Spock more often than not exposed in a lovers knot—thus the K/S from which the term "slash" derives. The fiction extended and extrapolated the Star Trek world, but it did not depart too radically from what could be recognized as that world. The pleasure from the point of view of the fan fiction was to inscribe themselves in the story, not destroy or depart from it (Jenkins, Penley). In general, the WoW machinima work in this way. They are crafted, have an authorial signature as it were, but adhere to the rules of that world to a large extent. In the realm of copyright law, these productions have no standing in claiming originality or even ownership. In the world of massively multiplayer online games (MMOG), where players invest at times a third of their waking hours to game play, the claim of ownership over an avatar that has come to represent you to your guild or clan is absolute. The pleasure in making and the joy of watching comes from understanding the reference and why the juxtaposition is funny. Isparian, the director of "Shut up," was a beta tester for the game as was most of the cast. Thanks in the credits are given to the Blizzard development team, and rights are assigned, "All images and sounds in this video are copyrighted by and are the exclusive property of their respective companies. Isparian's own contribution on the piece, like any good director, has to do with vision and making it happen: action.

The massively multiplayer online role playing game, such as WoW, is a game played by many people interactively, with each other and the engine, over time. The games have duration, which is how one builds skills and social networks and meaning beyond direct kinetic fun in the game space. Actual play though happens in real-time.

Real-time play, which presumes interactively, is what allows video games to behave uniquely from other time-based visual forms. Pac-Man happens in real-time otherwise there is not game. The differences between the design and use of the networked games such as the MMOG and a historical arcade game are

[6] For an example in UT2004 see ScriptComposer 0.9beta, Friedrich Kirschner or for Quake III Arena machinimation from Fountainhead Entertainment.

legion, but for the purposes here can be described in the greater freedom of play. One roves a world not a grid, even if that world is merely a hugely expanded grid. (If a citizen of Second Life flies too high she hits the limit of the sky.) And, relatedly, greater degrees of communication between players and greater responsiveness from the game, which means improvisation is much more possible.

If the dancing in "Shut Up" were not actually performed (real-time), as opposed to compiled and retroactively produced as most digital animation is, it would have not reason to exist. Dancing presents an extra-value in the communication economy, one that simultaneously describes the human "inhabiting" of game space even as the robotics of the program, its real-time factor, are exploited. That this is simulated movement–action that is the result of human-computer-interface of commands does make it any less movement. Simulation as a factor of real-time synthesis makes meaning differently than historical forms of animation or video making.[7] As in real-life, pure movement in the game engine does not bear the burden of narrative or even a semiotic referent. The motion expresses presence without the inscription of narrative meaning. Meaning here is more along the lines of a meta-communication within game play. "Fett's Vette," a popular music video made in the Star Wars Galaxies engine makes no sense if it is not embedded in Star Wars lore (the viewer has to know who Bobafett is, Chewbacca the Wookie, etc.). Yet, particularly as a music video, there is no story per se, save "the Fett dancing to Badd Spella Remix Radio Edit."[8] The recipe is simple: ludicrousness of the situation mixed with the excellence of the dance moves and lightly sprinkled with parody of cheesy real-world music videos.

Can something such as "pure movement" exist in game play, particularly when it was never real in the first place? As with any action in a video game, the dancing is a simulation of movement. The only thing that actually moves are lines of code. The rendered movement in "Shut Up" is modeled on various actual dances, for example, John Travolta's disco diva in Saturday Night Fever or MC Hammer's famous 1980's hip hop dance moves. The exchange between real-world histories and those of game-world is part of what makes for the humor of the genre. Animated cartoons have exploited parody since the day the form was born. The case of machinima, though doubtless founded on the spoof, has different implications than traditional animation that have to do not with its front-end, what one sees in playback, but its backend, what has happened in creating an image. This difference, which begins as technical in aspect but systemically effects what is produced, marks an important shift in this particular medium and perhaps a paradigmatic twenty-first-century wrinkle in time.

Real-time synthesis

Real-time synthesis describes a consecutive processing of signal to output. What is happening in the game engine computationally is also happening before one's eyes. The elegance of this simultaneity

[7] One of the formal distinctions between film (emulsion) and video (electric tape) is that video records in real-time and plays back directly. Film is a series of discrete frames moved through a projector to simulate motion. Video recording is more "live" in that sense. The distinction between the real-time of video recording and the real-time activity of live play in a game engine is just that: a human-machine interface that allows for extended activity as opposed to the machine functioning a dumb recorder.

[8] The video is "Fetts Vette," uploaded August 20, 2004 (39 Mb), by Windspire Entertainment. Downloads: 15424, channel: Star Wars Galaxies. The description is taken from the entry on the machinima.com web site. Clicking through the Windspire site, one finds an announcement from LucasFilms (the copyright holders of all properties associated with the Star Wars franchise) that states that the "fan-made Star Wars video" was mistakenly removed by YouTube from the peer-to-peer video streaming site. LucasFilms states, "We would like the fan film community to know that this was not done at our request."

emerges as the standard for the new terms of a ubiquitous computing.[9] Examples in current software applications such as instant messaging, streaming media (real-time play back from Internet), the explosion of MMOG, and including game modification such as machinima, all share the aspect of real-time synthesis. Because of its real-time aspect, Instant Messaging (IM protocols) replaces email for a new generation of networked communicants. Pronounced "I am," IM is declarative on every level. One "speaks" via text to another party and the words are conveyed instantaneously. Equally, the message is received directly, with a delay that is hardly humanly perceptible, making the experience of talking more like face to face than previous text-based systems, which is not a trivial distinction in terms of the success of such applications. Unlike email, which will wait for it's reader to attend to it, IM only works when there is an assurance that the other person is one the line. On levels big and small, there is someone there on the other side of the looking glass who is not simply a figure of imagination but a creature that possesses agency, even as we witness a growing machinima agency. T.L. Taylor, along side the growing legions of video game and media scholars, testifies to the reality of the virtual experience of networked game play. What is being proposed are network solutions as remedy for network alienation.

Technology theorist Friedrich Kittler argues that the history of technology indicates that the evolution of technology will go on without human agency, superceding our merely mortal perspective on things.[10] In a sense, or at least at our present moment of futurism, what has happened is quite the opposite. Robots have become diminutive physically and in our minds, moving into the closet of automating our whims as opposed to dictating them. Lo and behold, the communication media is being used in surprising ways (mod), but undeniably strong ways to further human communications. Despite appearances, the machinima mod dances are not created with a bunch of cheap robots being slaved to the rhythm. Quite the opposite. The directors do not cast with AI bit players, but rather shoot players who perform the dances in real-time. In another video, a cast of misfit bounty hunters line up in a grid to do their version of the machinima "Time Warp." The performers demonstrate skill level by live-gaming synchronized moves; the tangled logic of the piece as a whole gives the viewer synthetic dancers controlled by real people who are working to make dance look as robotic as possible. It is the same oxymoron in action with "Shut Up"'s preprogrammed freestyle solos. They are moving images of the metaverse evolver in action (Stephenson).

The story of the MMORPG and virtual worlds such as Second Life tells one about advances in speed and graphic rendition of three-dimensional imagery. It also telegraphs something about how we live now–why these virtual worlds have increasing meaning beyond a niche audience for a greater public. Most eleven-year-olds today will have a hard time believing that there was a "before" the Web. Yet, now we are at a new frontier where the flat-world of Web pages pale in the face of this new offering of full immersion. "Second Life is what the Internet was 10 years ago," says Philip Rosedale who founded the Second Life in 2003. "The metaverse has arrived, and is growing quickly."[11] The metaverse, a term coined by Neal Stephenson in his 1992 science fiction novel Snow Crash, conjures a world made of bits in which we socialize, do

[9] Ubiquitous computing (ubicomp) is a term first developed by computer scientist Mark Weiser of the Computer Science Lab at Xerox PARC, described the quality of Ubiquitous Computing to indicate the movement away from one-to-one PC based computing of the past decade and the emergence of an embedded, pervasive network that needs less and less hardware and user interface to function. Weiser described the quality of Ubiquitous Computing: "We believe that people live through their practices and tacit knowledge so that the most powerful things are those that are effectively invisible in use….It is invisible, everywhere computing that does not live on a personal device of any sort, but is in the woodwork everywhere" (1988).

[10] For a sample of this line of thought with Kittler see "The History of Communication Media."

[11] Interview conducted by author, 2006.

business, fight, have sex, all in virtual. Our avatar proxies stand in for us at the digital drinking hole or playground. As I have argued elsewhere, real-time synthesis has become at the same time the common place of telemedia communication and the extraordinary experience of simulacra.[12]

Cultural theorist Jean Baudrillard famously described an allegory of simulacra in the fable of the map that blanketed the kingdom: to make the most accurate model, the representation comes to stand in for the thing itself. The original threat or, perhaps one should say, the historical threat since the age of the clock of E.T.A. Hoffman's literary automata Olimpia, the cinematically inhuman somersaults of Blade Runner's Pris, or any in a long line of lifelike robots, androids, and cyborgs is that they might simulate humanness. With the emergent ubiquity of invisible soft machines–the algorithmic robots that perform Google searches or compile del.icio.us networks–one finds an apparent turn in the story where these benign little creatures are there to serve an augmented and applied humanism. The generative replaces the command as the dominant paradigm of automation. Gonzalo Frasca, in his de facto manifesto on ludology (game studies), writes, ""Simulation is [an] act of modeling a system A by a less complex system B, which retains some of A's original behavior" (Frasca 1999; 2001). Perhaps at this point in the history of computer simulation the referential meaning is not located outside of the box. The value of metaverse game play, its user numbers, its globalism, its growing seriousness culturally, speak to a shift in ontology.

In his thesis for the multi-volume work Technics and Time, philosopher of technology Bernard Stiegler conceives of the primary, essential human as a prosthetic being. The argument he makes places technology and its fraternal twin mediation at the heart of human nature from the beginning, not outside of it.[13] Real-time synthesis presents an evolution he describes as "man's pursuit of the inorganic alongside the organic". It is the machines that are modeling organic behavior on a generative level in terms of code and a simulated level in terms of representation of life. The risk presented by the emerging techno-organics of machines is, for Stiegler, demonstrated by real-time synthesis. He writes that it is "as if technics integrated in itself the delay which seemed until now to constitute the *who* on the *side* of the *what*…This displacement is what we refer to as real time" (Stiegler, 1996: 77). The distinction he makes is not in regard to a prior absence of technology but toward an understanding of a technology that behaves as a techno-genesis, a nascent machinic agency.

Stiegler points to the conundrum that real-time synthesis poses, even in the apparently consequence-free zone of game play, is the substitution of *who* for *what*. Time is on the side of the machines. Yet, and perhaps this is a perspective of generational use, of embeddeness within the technological, the human-computer interface steps to a new level of integration. It is not that one is less mediated, in fact quite the opposite. It is possible that after surviving the wear and tear of hyper-mediation, the subject is back in the saddle via simulation. If one can find in the example of contemporary military engagement of a virtual war executed with terrible real world precision that points to one kind of future, one can also see the remaking and proliferation of new modes of kinship that are often tribal (but in a post-ethnic sense) and certainly territorial (but in a post-geographic sense). A simple group-cheer production such as "Shut Up and Dance"

---

[12] Beth Coleman, "Mr. Softee Takes Command: Morphological Soft Machines," Can We Fall In Love with a Machine?, Wood Street (Pittsburg: PA 2006)

[13] Cultural theorist Mark Hansen summarizes Stiegler's theory: "…[T]he human suspends (or transcends) its genetic program by exteriorizing its memory into matter, thereby pursuing life through means other than life." "'Realtime Synthesis' and the Difference of the Body," Culture Machine 2004, http://culturemachine.tees.ac.uk/Cmach/Backissues/j006/Articles/hansen.htm

plays out the notion that simulation of virtual life is no longer merely simulation as a dead echo, but the actually generative.

All Is Full of Love

Machinima as a form is a resultant residue of the shift in computing that has brought machine and user in sync in real-time. Recently, "Synthetic" (B. Kiddo 2006, Sims) made a machinima take on the now classic real-world music video "All is full of Love" (1998). Director Chris Cunningham's video made for Björk's song illustrates brilliantly the turn of the screw from representation to simulation to a full-on giddiness of the substantiation of the unreal. His video presents an elegiac hardware fantasy about two lesbian twin robots, where all is made out of white reflective alloys surfaces and running milk. It is a tour de force of robot modeling seamlessly mixed with live-action. Kiddo's machinima doppelganger takes the same song, the same image of cute robots and recasts it as a traditional Pygmalion fantasy. The representation of humanness is, not surprisingly, where the piece fails visually. Machinma human hands and naked bodies summon up images of the Uncanny Valley in short order.[14] In the language of machinima, it is the shiny surfaces of the music video's she robot that, like a true replicant, seduce.

[1] Mod in this case is not the retro style of Quadrophenia, of peg-legged pants and motor scooters, but an abbreviation for "modify," as in customize one's program, platform, car (see "pimp"), etc. In a growing experience and conversation around user-generated content "to mod" is the verb of choice.
[2] Henry Lowood in a recent essay describes the growth of machinima production as it is related to the particular platform of World of Warcraft. "Warcraftmovies.com, the best known of these sites," he writes, "was in operation by early October, 2004. 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. The thousands of WoW movies offered today on Warcraftmovies.com has been divided according to categories that reflect the separation of audience interests. This website claims to have supported about 18 million downloads in its first year of existence, an average of nearly 52,000 per day." Lowood, "Story-Line, Dance/Music or PVP? Game Movies and Performance in World of Warcraft," Paper presented at the Aesthetics of Play conference in Bergen, Norway, 14-15 October 2005.
[3] "Mash-up," a phrase first associated with the technique of a DJ placing together the a cappella of one pop hit on top of the instrumental of another, e.g. Missy Elliot vs, Narvina, has now become a more general term for fan produced media characterized by the juxtaposition of two disparate but recognizable popular sources.
[4] http://machinima.com/
[5] http://www.wowwiki.com/Dancing
[6] For an example in UT2004 see ScriptComposer 0.9beta, Friedrich Kirschner or for Quake III Arena machinimation from Fountainhead Entertainment.
[7] One of the formal distinctions between film (emulsion) and video (electric tape) is that video records in real-time and plays back directly. Film is a series of discrete frames moved through a projector to simulate motion. Video recording is more "live" in that sense. The distinction between the real-time of video recording and the real-time activity of live play in a game engine is just that: a human-machine interface that allows for extended activity as opposed to the machine functioning a dumb recorder.
[8] The video is "Fetts Vette," uploaded August 20, 2004 (39 Mb), by Windspire Entertainment. Downloads: 15424, channel: Star Wars Galaxies. The description is taken from the entry on the machinima.com web site. Clicking through the Windspire site, one finds an announcement from LucasFilms (the copyright holders of all properties associated with the Star Wars franchise) that states that the "fan-made Star Wars video" was mistakenly removed by YouTube from the peer-to-peer video streaming site. LucasFilms states, "We would like the fan film community to know that this was not done at our request."

[14] The engineer and roboticist Masahiro Mori coined term Uncanny Valley in his discussion of the evolution of robots and human empathetic capacity. He argued that robots that are somewhat lifelike generate a greater degree of anthropomorphic transference than one that is a nearly perfect simulation. When a synthetic creature, whether hardware or bits, is too life-like the tiny differences between the real and the unreal are magnetized, growing exponentially creepier.

[9] Ubiquitous computing (ubicomp) is a term first developed by computer scientist Mark Weiser of the Computer Science Lab at Xerox PARC, described the quality of Ubiquitous Computing to indicate the movement away from one-to-one PC based computing of the past decade and the emergence of an embedded, pervasive network that needs less and less hardware and user interface to function. Weiser described the quality of Ubiquitous Computing: "We believe that people live through their practices and tacit knowledge so that the most powerful things are those that are effectively invisible in use….It is invisible, everywhere computing that does not live on a personal device of any sort, but is in the woodwork everywhere" (1988).

[10] For a sample of this line of thought with Kittler see "The History of Communication Media."

[11] Interview conducted by author, 2006.

[12] Beth Coleman, "Mr. Softee Takes Command: Morphological Soft Machines," Can We Fall In Love with a Machine?, Wood Street (Pittsburg: PA 2006)

[13] Cultural theorist Mark Hansen summarizes Stiegler's theory: "…[T]he human suspends (or transcends) its genetic program by exteriorizing its memory into matter, thereby pursuing life through means other than life." "'Realtime Synthesis' and the Difference of the Body," Culture Machine 2004, http://culturemachine.tees.ac.uk/Cmach/Backissues/j006/Articles/hansen.htm

[14] The engineer and roboticist Masahiro Mori coined term Uncanny Valley in his discussion of the evolution of robots and human empathetic capacity. He argued that robots that are somewhat lifelike generate a greater degree of anthropomorphic transference than one that is a nearly perfect simulation. When a synthetic creature, whether hardware or bits, is too life-like the tiny differences between the real and the unreal are magnetized, growing exponentially creepier.