

Arrested Development: Why Machinima Can't (or Shouldn't) Grow Up

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Applications of any sufficiently new and innovative technology have always been—and will continue to be—applications created by that technology.—Herbert Kroemer¹

Revolution in disguise

In the beginning, machinima offered itself up as a revolutionary medium, one poised to radically alter the way digital film and computer animation was made, watched, and shared. Early articles written on the topic all pointed to videogame engines as harbingers of technological promise, offering a system of production that would change the face of filmic production forever. Whether the focus was on machinima's challenge to traditional production methods: "... I think it is safe to say that traditional pre-rendering is increasingly going to come under siege by machinima/real-time rendered filmmaking techniques,"² form and style: "If game technology moves forward at the pace I believe it will, machinima will revolutionize animation. ... We will have CGI, stop motion, claymation, anime, and machinima as the primary styles of creating animated features..."³ or expression: "Somewhere in the intersection between the code of the game engine, an elegant system of distribution, and the improvisation of game play lies the raw material of a filmic form waiting to explode,"⁴ the tone was nothing if not optimistic. A spirit of almost giddy enthusiasm infused the small but growing community of machinima practitioners, and like the mod culture scene that was expanding in leaps and bounds around it, began to slowly attract the attention of those to whom it was most eager to speak: Hollywood.

But like so many young hopefuls, machinima wasn't quite ready for the part. As even Paul Marino, one of the field's strongest advocates admits, "The promise of filmmaking within a virtual space still needs to be fully realized."⁵ While technical advances in game engines have made their real-time rendering power seductive to those looking to cut their bottom line, machinima seemed to offer little else creatively, especially for film aficionados to whom FPS has always meant frames per second. And so the years pass, while the desire for change remains. Writers (including myself), continue to speculate, hoping perhaps, that machinima will finally make good on all that it seemed to promise. This hopefulness may be more than a little naïve, but as Kevin Kelly has noted, such

writing comes not from a fascination with speculations about technology but from a “desire to show the moral and practical consequences” of patterns of behavior.⁶

In looking back, it is easy to glimpse such patterns. Machinima mirrored and at times foreshadowed participatory practices in other areas of culture. Part of a larger wave of creative engagements emerging from changes brought on by the rise of digital media, machinima not only defined an innovative form of player-production that has become an integral feature of what Henry Jenkins has termed *convergence culture*: “Convergence involves both a change in the way media is produced and a change in the way media is consumed,”⁷ but also predicted the profound impact the ability to produce, post, and share videos online would have on a generation of kids born into games. YouTube today owes a cultural debt to the PlanetQuake of ten years ago. **Streaming video technology aside, sites like PlanetQuake or Pysch’s Popcorn Jungle sowed the seeds of a community of practice created around the viewing and sharing of game footage. Produced and managed by gamers, these sites set a precedent for user-created content shared freely and without prejudice against movie or maker.**

And despite the fact that machinima operates outside of commercial cultural production, which relies on professionalized, institutionalized, and capitalized systems,⁸ its development over the past decade relied in part on a confluence of parallel technologies. Take what was called the DV Revolution, and ask where machinima would have been without it. Plummeting prices of digital video cameras⁹ and desktop editing suites turned what had been a costly and insular process into something mainstream and affordable. Offering a new way of creating, distributing, and screening movies, DV presented a form of movie production that seamlessly aligned itself with film culture’s popular and economic imaginations. The birth of machinima and the rise of DV occurred simultaneously with the first wave of blogging (1994-2001). **Machinima.com launched at the tail end of this first wave and came to public notice with the first Quake III machinima, which was edited and recorded offline, a point I will return to later.** Paired with the escalation of mods from illegal (*Doom* wads, 1994) to legit (*Counterstrike*, 1999), it doesn’t take much to see that machinima grew up, into, and out of a rich cultural ecology of technology-related practices. When viewed from this perspective, the subsequent popularity of **Windows Movie Maker**, iMovie, videoblogs, and MySpace, should have caught no one by surprise.

Framing machinima as a purveyor of change has also helped to shape the practice itself. Institutions such as the American Museum of the Moving Image, the Film Society of the Lincoln Center, and Sundance, for example, supported this speculative discourse through inclusion of machinima in “future of” programs, marking machinima as more than a blip on some geeky radar. Universities from around the world slowly started to add machinima to film and new media curriculums,¹⁰ acknowledging that while they don’t always know what the future holds for the form, machinima is certainly something worth paying attention to.

Yet, hiding under the surface of it all, is a sneaking suspicion that machinima doesn’t seem to want to grow up—that game boys are still making silly little films about, well.... game boys. To most, machinima seems to live in a state of suspended animation, growing in size but not in maturity. How could we have been so wrong about something that felt so right?

Sub-histories

The history of machinima might best be told as a series of many possible sub-histories. One sub-history, for example, would focus on the status of machinima within the context of real-time animation technology; another on the evolution of style, conventions, and aesthetics, while a third might locate machinima within a legal discourse around intellectual property, file sharing, and the rise of the Copyleft. Each of these sub-histories would probably have a beginning, middle, and end (or at least a “today” marker), and taken in sum, would produce the effect of a field that has changed considerably. But my interest, if you haven’t already figured it out, is in tracing a sub-history that has failed, in some sense, to arrive anywhere at all. Instead, it is a history of a medium caught running in place. We look back at a time when, as Dwight D. Eisenhower once put it, “Things are more like they are now than they ever were before.”

Prevailing wisdom has long held that an amateurized machinima scene is “something to get beyond.”¹¹ In other words, the end game for machinima and its cadre of machinimators is in achieving credibility as an alternative to traditional filmmaking techniques. While this focus may highlight where machinima has fallen short in the years since the making of “Devil’s Covenant” (1998) or “Father Frags Best” (1999), it might

also help us to see that in setting our sights on a revolution in *production*, we might have missed recognizing the one promise machinima has made good on: the promise of *participation*. This promise may in fact be the one promise that truly matters. It is also a promise that has kept machinima from maturing in the conventional sense of the word. Machinima may be showing us that a media form can remain immature and still be meaningful to both its participants and to culture at large. “Getting beyond” might no longer be the goal.¹²

The meaningfulness of machinima can be read in a number of ways. To long time participants, including dedicated directors like Paul Marino and Katherine Anna Kang or production studios like Strange Company and Clan Phantasm, machinima productions are *film* productions. The Academy of Machinima Arts and Sciences, for example, models itself directly after the Academy of Motion Picture Arts and Sciences, and presents machinima as an alternative to other digital film and animation techniques. The work of groups like Rooster Teeth and Bong + Dern, on the other hand, looks to television for its cue. These machinimators find inspiration in the likes of Homer Simpson or John Stewart, rather than Stone or Scorsese. Despite these differences in inspiration and framing, machinima offers all of these producers a rich space in which to experiment with visual storytelling inspired by the games they love.

That is why no discussion of machinima would be complete without considering the countless number of producers posting gamer-made videos to their videoblogs or to sites like YouTube, who don’t necessarily know that what they are doing has an “official” name. For these producers, making films is both a way of gaining friends within a social network or of simply trying things out. As one YouTube user writes: This is “my first film as being the official 'Lost Cause Productions'. I know it's been done before, but i had to give it a try.”¹³ Their take on Shakira’s booty shaking Hips Don’t Lie is a shot for shot recreation of the popular music video modeled in *The Sims 2*. No actual filmmaking is taking place, by conventional definition; instead, the work simply seeks the transformation of a game avatar into a video pop star.

There is no attempt here either, to demonstrate the kind of technical or game mastery that dominated machinima’s early demo history. While viewers of “Scourge Done Slick” (1998) or even the more recent Katamari Damacy speed run “Make the Moon” (1998)

learn a tremendous amount about how to play and even beat those games, the audience for “Hips Don’t Lie” learn very little about *The Sims 2*, beyond the game’s relative ability to support choreographed gyrations.

Neither is there a desire to write, act, or direct, all activities common to the official machinima scene. Instead, the producer behind the game-made music video uses machinima as a way to signal to others in the YouTube community that he/she is taking part, and that he/she really, really likes this particular Shakira video. Central to the appeal of producing machinima in this context is the fact that posting and sharing the clip serves to make friendships and social networks visible to others. **The affinity groups that cluster at the intersection of Shakira fans and the *Sims 2* revel in a production-oriented dialogue expressing an appreciation of the game, the singer, and the community of which they count themselves part.** Participants therefore use machinima as source material in the crafting of their online identities. Machinima operates as social currency within a public network, taking over where a user profile leaves off. Perhaps not surprisingly, many of these individuals would be hard pressed to count themselves as part of a formal machinima community. They just don’t see machinima in the same way, if they see it at all.

“I saw the Sex Pistols,” said Bernard Sumner of Joy Division. “They were terrible. I thought they were great. I wanted to get up and be terrible too.”¹⁴ This is a sentiment shared by a growing number of machinima producers contributing to a machinima-inspired repository of cultural knowledge about their own lives and interests. Knowledge ranges from a player’s love of the game of baseball (see Sean Coon’s “Mets vs. Red Sox, Game 6 machinima,” a perfect re-enactment of the 10th inning of the Buckner game in 1986, reproduced in Nintendo’s *RBI Baseball*), to an obsession with snack foods (myndflame’s epic *World of Warcraft* production, “Illegal Danish Super Snacks”). When we think about machinima in this way, we see that the history of machinima is more than a history of the maturation of a real-time animation technology. It too is a history of knowledge networks generated through everyday play. Jim Munroe’s seminal piece “My Trip to Liberty City” (2003) can be read as an animated travelogue through *GTA III*; but it is first and foremost a documentary of the day in the life of man, the player.¹⁵

Gaming literacy

The story of machinima can be told not only as a sub-history of moving sideways while running in place, but as a medium partly responsible for the rise of an attitude toward digital media and creative production borne from the DNA of games. We might call this attitude a *gaming* attitude, an attitude tied directly to the creative qualities of play. As designed systems, games offer certain terms of engagement, rules of play that engender stylized forms of interaction. Gaming takes these terms of engagement and elegantly blends them into a practice steeped in transformative play. Players acknowledge rules while pushing against them, testing limits and causing the system, at times, to change shape. As Mizuko Ito has noted, “The promises and pitfalls of certain technological forms are realized only through active and ongoing struggle over their creation, uptake, and revision.”¹⁶ When the Rangers recorded “Diary of a Camper” (1996) they were not only taking advantage of the real time capabilities of the *Quake 1* engine, but were similarly revising their own roles as gamers. Machinima is a story of players, who on occasion, might just be mistaken for filmmakers too.

Structurally, game engines invite modification along established parameters, a kind of systematized, rule-bound play that is informed by the improvisational play of bits and bytes intrinsic to digital technology. In general, players deconstruct the game in order to play with it. Instead of accepting the rules, they challenge and modify them. The movies spawned from game engine technology embody both kinds of play. They are at once systematized objects, bound by the game’s interactive structure and underlying code. Yet they are also radically free, offering users a unique space in which to perform and play with both narrative and representational codes. Paul Virilio writes “play is not something that brings pleasure; on the contrary, it expresses a shift in reality, an unaccustomed mobility. To play today, in a certain sense, means to choose between two realities.”¹⁷ In machinima, the movement from playing to producing gives place to form in a transient, even momentary, other world; with this movement comes a quaking or stuttering of accepted norms that has provided a point of mobilization for a generation of producers to whom gaming has become second nature.

From Demo to Exploit

Rather than remaining within a speculative space that looks at what machinima *might* offer as technologies and tools evolve, let’s instead explore what machinima has *already*

contributed to a larger discourse around gaming as a subversive and participatory literacy. Doing so allows us to rethink our assumptions about where machinima was supposed to go, and what it was supposed to do. What forms of knowledge, literacy, and social organization are being supported by machinima and related activities? Gaming as a production-oriented literacy moves to the forefront within this discourse, with several styles of participation in evidence. I want to touch on two in particular—demos and exploits—for together with several changes in the way machinima was distributed and edited they set the stage for a major shift in the way the machinima scene, post 2000, would play out.

Historically, trend setting first person shooter games like *Quake* and *Doom* were some of the first to offer an editor to consumers, which allowed users to design and program their own maps (environments), skins (character avatars), weapons, and tools for game play. This pioneering feature offered users unprecedented power to affect game play by altering both the forms and spaces of designed interaction. Modifications to the game code (known as mods), were written by players (or groups of players known as clans) and posted online in .pak4 format for other *Quake* enthusiasts to download and use. Almost instantly, an economy of *Quake* cultural production was born. This economy pushed the edge of technical innovation, fueled as it was by hardcore gamers' desire to explore the absolute limits of the technology—how far could the code be pushed before the system was broken?

Demos, the earliest form of machinima, emerged seamlessly from this established mod economy, and the desire to demonstrate one's mastery of the game and its form dominated. Demos were little more than technical films of game play, with players showing off their skills and abilities to an audience eager to emulate them. This same demo form survives today and remains increasingly popular across a diverse group of games and platforms. **Two types of demos developed, distinguished by their mode of production. "Real" demos had to be viewed in-engine, maintaining a strict connection to the platform on which they were created, operating as a kind of instruction set for the game engine. These works tended to be produced in machinima-native engines like Quake, Doom, and Unreal Tournament, and were made by hard core machinimators. The second type of demos which developed later— "gameplay recordings"—were made using FRAPS, a free, real-time video capture utility for DirectX and OpenGL applications**

released in 1999. FRAPS allowed players to record game play of any game running on a PC, capturing up to 100 frames per second of footage. The introduction of FRAPS opened up the culture of machinima to a wider range of games and producers,

Films falling under the category of “gameplay” on machinima.com, for example, receive two to three times as many views as do individual films. Hundreds of machinima videos on YouTube are tagged as *compositions*, and showcase individual videogame characters from fighting games like *Soul Calibur II*, demonstrating stylized fighting techniques. Tira and Sophita log the most screen time to date, with a large percentage of the works produced by teenagers, many of them girls.

But demos aren’t particularly transgressive, with their focus on technique, and watching one often does little more than challenge one’s own confidence in what might already be rather shaky game play. Starting with Anthony Bailey and the Quake Done Quick crew, however, things were slated to change. Famous for their speedrunning demos, the clan was also one of the earliest groups to use machinima to showcase exploits or degenerative game strategies. They refined—on camera—a running technique known as bunnyhopping, which allowed players to increase the speed at which they could run without cheating. **Because there seemed to be no air resistance in Quake—the animations for jumping were faster and wider than those for running—it was possible move more quickly by spending as much time in the air as possible.** Designers of the game certainly didn’t expect players to discover how to bunnyhop, but once the technique was invented and captured on film it became a sanctioned, albeit transgressive way to play.

Gameplay recordings focused on the documentation of game exploits serve several functions within the machinima community and within digital culture more broadly. On the one hand, they offer players a means of recording and transmitting creative cheats, which are picked up and reenacted on what is often a mass scale, altering forever how a game is played. “Warthog Jump” (2002), Randall Glass’s tribute to Halo’s physics engine falls into this category, as do many of QDQ’s speed runs. A more recent example, however, shows how machinima focused on game exploits can go far beyond technical play. “Ubermorgen.com machinima No.0” (2006), by hansbernard, remixes found *World of Warcraft* game footage from video.google.com showing a teleportation hack by Chinese gold farmers. Gold farming refers to an illegal practice within MMOs where

players known as gold farmers acquire items within the game for the sole purpose of sale to other players in an out-of-game venue, such as eBay. **Because there is often significant real-world demand for in-game gold, most modern MMORPGs, including *WoW*, forbid this kind of activity.¹⁸ While the original footage was probably recorded as a gameplay demo, showcasing a particular farming technique, hansbernard's version remixes the footage to focus specifically on the hack. Here hansbernard uses his film to document and expose illegal activity taking place within the game, in much the same way that a film by Michael Moore might do. Such recordings not only bring to light the existence of exploits within a game, but point to their ethical dimensions too.** Machinima takes on new significance for a *WoW* community who at last login, counted itself seven million strong.¹⁹

This complex overlap between in-game and out-of-game activity is one of the most compelling features of games. Both mod and machinima culture take advantage of players' desires to extend their play beyond the formalized period marking the beginning and end of a game session. Many players today spend a great deal of time preparing for the next round of play. This might mean watching machinima demos of game play, scouring game guides, writing walkthroughs, trading items, or creating custom skins. This activity is all part of the metagame, or the "game beyond the game." Metagaming refers to the relationship between the game and outside elements, including everything from player attitudes and play styles to social reputations and cultural contexts in which the game is played.²⁰

The history of machinima is in some sense, a story of one particular metagame going, for lack of a better term, "meta." While early examples of machinima emerged out of the closed culture of the first person shooter, it didn't take long before the metagaming practices associated with its production—recording and posting demos, customizing maps and skins, remixing gameplay, authoring tools—spilled over into spaces beyond *Quake*.

Stutter

*It is when the language system overstrains itself that it begins to stutter, to murmur, to mumble.*²¹ Deleuze

It is easy to forget in these days of broadband access, T1 lines, and wireless connectivity that 28k modems were once considered fast. In looking back to the dialogue around early machinima production, it is hard to grasp how compelling the ability to distribute film over the Internet was to so many. In a correspondence with Hugh Hancock in 1999, he pointed out that Strange Company's feature "Eschaton: Nightfall (1999)" "took just three hours to download over a normal modem, for 35 minutes of full-screen, DVD-quality footage. The same film would have taken close to a month to download if it had been in any conventional format."²² Patience with a dial-up connection required one to exercise an almost Zen-like disregard for time, in what felt to be cutting-edge production techniques.

There was, however, a moment when everything changed. Prior to 2000 and the release of the *Quake III Arena* film "Quad God," watching a piece of machinima meant owning the game it was created in. As in the case for the "real" demos discussed earlier, **early forms of** machinima relied on the viewer to supply the software that could make sense of the modified lines of code. This requirement, along with a series of unspoken rules intended to maintain the purity of the form by working "in-engine"—no use of After Effects, for example, or Adobe Premiere—created certain barriers of entry for individuals seeking to join the community. Like members of the demoscene, machinima's hacker-friendly counterpart, early machinima pioneers were programmers themselves. It simply made sense that any code-based forays into procedural animation would maintain roots within the aesthetics of real-time code.

As a result, the early days of machinima were almost entirely hidden from sight. Simply finding ways to watch the work was a major challenge. Non-gamers, for example, were unable to view any of the films, unless it was over the shoulder of a player. If one did succeed in downloading the file and launching it within the appropriate engine, bits of programming might be required to "see" it correctly or to reboot a PC (all early machinima was PC-based) crashed by the film. For a community intent on bringing their work to the attention of a non-gamer audience (i.e. indie film, Hollywood), this appeared to be a fatal flaw in the overall game plan.

There is a paradoxical relationship between a game and the play community it generates. In a sense, the play community is an effect of the game, borne from an appreciation of

the style of play the game offers. *Doom* generated an intensely loyal and productive community made up of players who not only loved the game, but also loved being part of a community who also happened to love *Doom*. At the same time, the game has no life apart from the play that activates it, and is dependent on the play community for its sustenance. One would simply not exist without the other.

Machinima was most certainly an emergent property of this paradox linking games and play communities, and in the beginning, benefited greatly from the enthusiasm and dedication of its members. But the community was so closed that it lacked any significant exchange with its environment, namely thousands of gamers and non-gamers growing up in the throes of remix and mash-up culture, all who owned a laptop and dreamed one day of becoming a famous music video director. At the time, few of these potential machinimators could be bothered to learn Keygrip or be convinced to drop fifty bucks on a game they didn't really want to play. It was only at the moment when the community opened up to the lifestyle of the rest of digital culture did they move off the periphery and onto the screen.

Departure

This opening up happened in two specific ways. First, in January 2000 a group known as Tritin Films released "Quad God" in a variety of streaming formats, which made the film accessible to more people. The audience it reached included hard core gamers, as had the original machinima community, but also counted individuals who might have been tinkering with DV cameras of their own, or mixing stop motion footage with newly digitized Super 8. Prior to the release of "Quad God," only two production companies had experimented with releasing their films in out-of-engine formats. Hugh Hancock of Strange Company was the first to deliver a machinima trailer in RealMedia format ("Eschaton: Darkening Twilight," 1997) and the Ill Clan experimented with alternate formats with the release of "Apartment Huntin'" (1999) on *Wired Magazine's* Animation Express.²³ And while the change to distribution via streaming formats did not diversify the audience overnight, one of the toughest barriers of entry into the scene had been breached, from the inside.

Other machinima producers were quick to follow suit, and it wasn't long before the practice of releasing a film in a variety of streams had become common practice. The

change did impact two of machinima's strongest technical selling points, however. When saved in .pak4 or .dem file format, machinima lent itself to quick downloads, as file sizes were small. The conversion from lines of real-time code to what was effectively rendered footage, increased file sizes dramatically. An increase in file size mattered less, however, than the loss of machinima's status as pure machine animation. While the films were still produced in real-time, viewing them outside the real-time game engine from which they were birthed was a significant ideological compromise. The moniker "machinima" lost luster as the films began to be tagged by those outside the hardcore machinima community with the more popular "video." Even Rooster Teeth Productions, who today are so closely associated with changing the way machinima was conceived and produced, avoided calling their works films, opting instead for the television and web-friendly "episode." Machinima had entered popular consciousness at the intersection of DV and mod culture, an identity it couldn't seem to shake. MTV2's machinima-inspired music video show, VideoMods, picked up on this shift in lexicon, obscuring further any hoped for popular definition as film. **In hindsight, Hugh Hancock may have killed his own Hollywood dream with the release of Strange Company's work in RealMedia format.**

Following closely on the heels of the change in the way machinima was formatted and distributed, came a change that occurred so gradually, it was nearly imperceptible. As mentioned previously, early machinima productions eschewed the use of commercial editing software in favor of in-game, in-engine production techniques. **But many of the people involved in the scene were also starting to play around with programs like Adobe After Effects and Adobe Premiere.** These non-linear editing tools worked neatly with the imaging programs members of their machinima production teams were using and it seemed only natural to incorporate these tools into the post-production process.

It was most certainly in 2000, with the release of "Quad God," however, that the floodgates opened and the wave of non-linear editing techniques swept through. **Forced, in part, to adopt alternate post-production techniques because of id Software's clamp down on netcode hacking associated with the pre-release of Quake III Arena, "Quad God" was the first to be edited entirely out of engine. Id believed that demo recording threatened network protocol, as players who deciphered the demo recording would be able to cheat in the game. As a result, they refused to release the source code as Open Source, which they had done traditionally to coincide with the release of the next**

generation of their engine. Because the makers of “Quad God” were unable to access the engine’s source code, they had to resort to the use of video capture if they wanted to work with the engine at all. This decision, along with a parallel in 56K and ISDN connectivity more broadly, set the stage for a transformation in the means of production, leading to an explosion in machinima creativity. In this sense then, while the inclusion of networked play in *Quake III Arena* was seen initially as counterproductive to the machinima scene, Tritin Film’s workaround cast the challenge in an entirely new light.

Examples abound. Rooster Teeth Productions’ groundbreaking series “Red vs. Blue: Blood Gulch Chronicles” (2000+) benefited from the efficiency of conventional digital editing tools, as the rigors of a bi-weekly production schedule made in-engine work impractical. “Grand Theft Halo: Headlong vs. Grand Theft Auto: San Andreas” (2006) relies on a visual style and structure that would have been impossible to produce entirely in-engine. The film uses a split-screen format showing parallel footage from *Halo* and *GTA: San Andreas*, respectively. “GTA’s New Bad boy = Master Chief” (2006), teleports *Halo*’s hero onto the streets of San Andreas, creating a new kind of cultural mash-up possible only with off-the shelf editing tools. **Most machinima today relies on a mix of real-time and non-linear editing; Windows Movie Maker and FRAPPS are tools of choice for many budding machinimators, in most cases because this is the platform on which they game.**

Both of these changes, the move toward distribution in conventional video formats and the shift from in-engine to out-of-engine editing and special effects dramatically affected who was making machinima and why. As Henry Jenkins writes, “This is what a lot of us had hoped would happen in the digital age: the technology would put low-cost, easy-to-use tools for creative expression into the hands of average people.”²⁴ Lower the barriers of participation, provide new channels for publicity and distribution, and people would create remarkable things.

Tomorrow

In *Theory of Radio*, Bertold Brecht posed the question, “If you should think of this as Utopian, then I would ask you to consider why it is Utopian.”²⁵ Machinima has long struck many as a media form struggling against its own ideals. While its young history wouldn’t be considered turbulent by any stretch of the imagination, it is one colored by

resistance: resistance to convention, to communities beyond its edges, to compromise. In remaining resistant, machinima could have let the future pass by. Luckily, it only pretended to do so, stepping sideways instead of forward, where we had all been looking. Machinima did this by holding firmly onto a set of ideals that lauded a democratic approach to authoring and production, an ease of distribution, and an appreciation for all kinds of stories. **Through a unique blending of social structures of consumption and production that made it both personal and safe-to-fail machinima blossomed.** And in accidentally resisting the push toward maturity desired by so many looking from the outside in, machinima managed to provide the most important thing of all: opportunity. By remaining true to its amateur roots, machinima guarantees anyone a chance to produce work and do it well or badly. People are free to use the medium in whatever way that they want; spend time on any of the online sites dedicated to machinima and revel in the variety.

Some major cultural changes can be seen as directly inspired by new technology, **like the change in communication styles ushered in by IM and text-messaging, while others occur relatively independently of technology; still others emerge from new “technological metaphors and analogies” that indirectly alter the structures of perceptual life and thought,²⁶ as in shift in perception of self explored through online identities in virtual worlds.** For a generation fluent in the language of peer-to-peer exchange, player-production is a newly realized form of personal agency, affecting both life and thought. What matters a great deal within this model of agency is the network of social creation it offers, and the community of collaboration, which results. Machinima games this system elegantly, pushing back against a need to codify potential qualities of production. In a space where everything is possible, moving forward means simply staying in place. In the oft quoted, but still relevant words of Truffaut:

The film of tomorrow appears to me as even more personal than an individual and autobiographical novel, like a confession, or a diary. The young filmmakers will express themselves in the first person and will relate what has happened to them. It may be the story of their first love or their most recent; of their political awakening; the story of a trip, a sickness, their military service, their marriage, their last vacation...and it will be enjoyable because it will be true, and new...The film of tomorrow will not be directed by civil servants of the camera,

but by artists for whom shooting a film constitutes a wonderful and thrilling adventure. The film of tomorrow will resemble the person who made it, and the number of spectators will be proportional to the number of friends the director has. The film of tomorrow will be an act of love.²⁷

Machinima tells stories, yes, but not in ways we might have originally imagined. The films tell stories of games, players, and most importantly, of the ways we see ourselves. The view is truly fantastic.

¹ Kroemer, Herbert. "Nobel Lecture: Quasielectric fields and band offsets: teaching electrons new tricks." *Rev. Mod. Phys.* 73 (Issue 3, 2001): 783–793.

² Salen, Katie. "The Art of Machinima," *Future Cinema* exhibition catalog. ZKM New Media Institute. (October, 2002): 538-542. Source of quote, Hugh Hancock, Strange Company.

³ *Ibid.* Source of quote, Katherine Anna Kang, Fountainhead Entertainment.

⁴ *Ibid.* Source of quote, Katie Salen.

⁵ Silverman, Jason. "Machinima Marches Toward Amusing." *Wired News*. (November 11, 2005). <http://www.wired.com/news/culture/0,1284,69550,00.html>

⁶ Kelly, Kevin. "Unto us the Machine is born." *The Sydney Morning Herald*. (November 15, 2005). <http://www.smh.com.au/news/next/unto-us-the-machine-is-born/2005/11/14/1131816858554.html>

⁷ Jenkins, Henry. "Welcome to Convergence Culture," *Receiver*. (Issue 12, March 2005).

⁸ Russell, Adrienne, Mimi Ito, Todd Richmond, and Marc Tuters. "Networked Public Culture."

http://netpublics.annenberg.edu/alternative_media/networked_public_culture

⁹ DV was launched as a video format in 1996. DV over FireWire starting with Sony's VX-1000 and Charles McConathy/Promax's efforts to make it work with the Adobe Premiere of the day, paved the way for what we now call "The DV Revolution".

¹⁰ Universities programs pioneering the study of machinima include the Australian Film Television and Radio School, Georgia Institute of Technology, New York University, Parsons The New School for Design, and the University of Central Florida.

¹¹ Russell, Adrienne, Mimi Ito, Todd Richmond, and Marc Tuters. "Networked Public Culture."

http://netpublics.annenberg.edu/alternative_media/networked_public_culture

¹² *Ibid.*

¹³ “Shakira Video Sims 2: Hips Don’t Lie By Shakira,” Lost Cause Productions. (2006).

¹⁴ Marcus, Greil. *Lipstick Traces: A Secret History of the Twentieth Century*. (Boston, MA: Harvard University Press, 1989): 7.

¹⁵ See Monroe’s similarly transcendent “Yoga Deathmatch”, made in Half-Life 2.

http://www.nomediakings.org/vidz/yoga_deathmatch.html

¹⁶ Ito, Mizuko. “Mobilizing the Imagination in Everyday Play: The Case of Japanese Media Mixes.” Forthcoming in Sonia Livingstone and Kirsten Drotner Eds., *International Handbook of Children, Media, and Culture*.

¹⁷ Virilio, Paul and Jerome Sans. “Games of Love and Chance.” *Games of Architecture. Architectural Design*. Ed. Maggie Toy. (1996): 24.

¹⁸ *Wikipedia, The Free Encyclopedia*. Date of last revision: 9 September 2006 16:16 UTC, Page Version ID: 74734005.

¹⁹ Schiesel, Seth. “An Online Game, Made in America, Seizes the Globe.” *The New York Times* (September 5, 2006).

²⁰ Salen, Katie and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. (Boston, MA: MIT Press, October 2003): 277.

²¹ Deleuze, Gilles. *Difference and Repetition*. Translated by Paul Patton. (New York, NY: Columbia University Press, 1994).

²² Salen, Katie. “The Art of Machinima,” *Future Cinema* exhibition catalog. ZKM New Media Institute. (October, 2002): 538-542.

²³ Historical information generously provided by Paul Marino.

²⁴ Jenkins, Henry. “Welcome to Convergence Culture,” *Receiver*, (Issue 12, March 2005).

²⁵ Brecht, Bertold. *Theory of Radio*. Gesammelte Werke, Band VIII. (1932): 129.

²⁶ Sobchack, Vivian. “The Scene of the Screen: Envisioning Cinematic and Electronic Presence.” *Materialities of Communication*. Eds. Hans Ulrich Gumbrecht and K. Ludwig Pfeiffer. Palo Alto: CA, Stanford University Press, 1994): 89.

²⁷ Truffaut, François. *Arts* magazine. (May 1957).