TWO STEPS BACK AND ONE STEP FORWARD: REMEDIATION AS INNOVATION FACTOR IN THE CASE OF MACHINIMA

Thomas Veigl

The digital art of Machinima realizes narrations and installations in completely virtual sets. The increasing convergence of the computer game and film industries signals a process of change that has far-reaching consequences for production methods and copyright in both areas. The article shows how Machinima guides to social and cultural change and offers a theoretical approach to media evolution.

Machinima today is a worldwide phenomenon that in recent years has penetrated further and further into the media mainstream where it is fast becoming known as the most popular form of digital game art. Machinima technology is used to create computer-animated films within a virtual real-time 3D environment—in short, to produce films in computer games. The game's modified virtual environment, the objects, and avatars are used to develop scenarios that are then recorded and edited.

Machinima is strongly associated with linear narration and aesthetics of film and TV. Therefore it can be criticized as new art form or medium since the technology of computer game engines offers interactive potential as never before.

As well in the latest and most comprehensive publication on the subject, the "Machinima Reader," [1] Katie Salen and Michael Nitsche came up to this point. Salen remarked that, against initial expectations, the possibility of viewer participation is not realized in current machinimas. [2] And Michael Nitsche regreted that the performative character of real-time animation is not applied in most machinimas. [3] However under the perspective of media evolution new media precisely achieve their cultural significance by refashioning earlier media. This process which Jay David Bolter and Richard Grusin in their identically named and widely discussed publication called remediation [4] appears essential for achieving cultural and social acceptance which is further required for an economical and legal frame that matches the new art technique.

What follows is a summary of an investigation of the development and actual status of machinima which sets it in a theoretical frame of media evolution. The approach used follows the main features of Joseph Schumpeter's model of economic development [5]and Everett Roger's theory of innovation diffusion. [6] Traces of the invention of machinima, beginning in the mid-1990s will be located and its innovation, which appears at the moment to be completed will be described.

The invention phase comprises the period until the first complete problem-solving version appeared, a prototype whose ultimate use is not yet clear. It is not possible to pinpoint the beginning of this phase precisely, unlike its end, because every invention has a series of predecessors. To explore the invention of machinima I shall examine the immediate technological and cultural preconditions.

As the invention alone is not decisive for the form of its application or for whether a new media technology will continue to exist, the next section examines the prototype's innovation, which is articulated by

three indicators. These are: finding an accepted name for the new medium; the emergence of a commercial market for it; and the development of specific legislation.

Invention

Beginning with its invention machinima is closely connected with the very popular first-person shooter (FPS) games of the early 1990s in which the developers of id Software, John Carmack and John Romero, were significantly involved. Essential elements, which later proved to be prerequisites for machinima production, are the players personal point of view, 3D-graphics, real-time game engines, modifiability of game content, multiplayer mode, and in-game recording. These elements were present in isolated instances in 1980s computer games, but id Software consciously combined them in their FPSs to achieve an enhanced the payers immersive experience.

In 1996 the Quake movie "Diary of a Camper" was released by the Ranger Clan. In principle it was a recording of a Quake deathmatch with a short amusing narration referring to the game with text-based dialogues. Nowadays "Diary of a Camper" is widely recognized as the first machinima production - the first narrative produced with a real-time 3D game engine.

In the same year "Torn Apart 2: Ranger Down!", the first Quake movie with narrators instead of text dialogues, was produced. 1997 "Operation Bayshield" from Clan Undead was released, with added skins and lip movements, and the next highlight "Eschaton—Darkening Twilight" from the Strange Company, the first narration that did not refer to the game but had completely independent content. So around 1996 – 1997 we can indicate the prototype!

Innovation

In the phase of innovation, the invention encounters its proper application. I call this the society's differentiation of and function assignment to the new technology. As mentioned above, the phase's completion is marked by three indicators: (1) the accepted denomination of the new medium, (2) a nascent economic market, and (3) the formulation of specific legislation. Commercially viable forms reflect the social demand for a new product and determine its continued existence and further development. Media history shows that if a new technology achieves sufficient relevance, one consequence of the social formatting of the new medium and the increasing necessity for legal control will be the emergence of new legal provisions that are better attuned to the logic of the new technology.

Denomination

After 1999 id Software impeded access to the Quake III engine's code. This fact plus the release of further games with mod possibilities like the FPS Unreal (1998) from Epic Games, or Half-Life (1998) from Valve Software, ended the sole reign of the Quake engine. Significant for popularizing Machinima was the choice of format. A milestone was the movie "Quad God" in 2000 from Tritin films, which for the first time was not only distributed in a demo file format, but also in a conventional video file format and could be viewed without the game engine. This no longer excluded a greater audience not in possession of the original computer game.

In the same year the naming machinima, occurred under the auspices of Hugh Hancock, cofounder of the Strange Company and the online platform www.machinima.com. Machinima is a made-up word from machine, cinema, and animation. So we can confirm the naming.

The next important step was connected with two computer games which offered better user friendliness for machinimators: The Sims 2 (2004) and The Movies (2005). Following an inquiry by Robert Jones these games increased fiftyfold the whole machinima production from 2004 to 2006, and female machinimators, which prior were hardly active, increased up to 50 percent. [7]

The innovation process brought further development of machinima and a variation of different technical and conceptual approaches. Machinimas differentiated in the distance to the games, which 2005 led to a discussion about machinima production. Paul Marino first distinguished inside-out from outside-in machinimas [8] and Phil Rice referred on this distinction talking about "Engine-Idea" and „Idea-Engine." [9]

Mostly widespread machinimas are inside-out productions. With regards to technique, visual style and content they heavily depend on the game on which basis new stories are told inside the game world as intertext or paratext relating to or as comment about the game. The filmic quality often takes a back seat in favor of central dialogs, which tend to parody, reference and joke. The genre, which audience mostly consists of players, develops with the games and functions as fan-fiction or textual poaching. [10]

After 2005 productions more concentrated on visual and narrative aspects outside the game world as well as better pre- and postproduction were increasingly released.

Outside-In productions differ from the visual game style and story. Here the game serves rather as a render engine. In contrast to the inside out method the visual concept has to be designed from scratch, assets have to be produced and more production time and experience with film and 3D graphic production is necessary.

Although there are interactive productions as well, like the Ill Clan's "Common Sence cooking" (Quake II), Chris Burke's "Spartan Life" (Halo2) or Friedrich Kirschners "Litte Puppet play" (Unreal Tournament, Moviesandbox) they are definitely a minority.

Looking for machinimas in commercial relations solely linear narrations with concepts from film and TV can be found.

Commercial Uses

The game and film industries use the popularity of machinima for advertising purposes, image building, and image cultivation, and organize product-specific competitions on a regular basis. One of the highest paying is the "Make something unreal contest," organized by Epic Games and Intel.

Major film and media art festivals offer a platform for machinima productions: Ars Electronica Animation Festival, the Bitfilm Festival, the Ottawa International Animation Festival, the Sundance Film Festival; the exclusive annual Machinima Film Festival by the Academy of Machinima Arts and Sciences and the annual MachinExpo.

Producers of machinima who emerged out of the game community have found commercial applications for their art. One of the longest existing groups, the Strange Company from Edinburgh, produced in 2003 "Tum Raider" for the BBC and Further projects for BAFTA, Scottish Television, and Electronic Arts. The ILL Clan from New York, works for MTV, Universal, Warner Brothers, NBC, and IBM. They create videos, commercials, and presentations for Web and television, including a spot for the TV series Two and a Half Men and machinima material for the TV series CSI: New York. Rooster Teeth Productions successfully sell DVD compilations of their famous machinima series "Red vs. Blue", a comedy series produced with Microsoft game studio's Halo from 2003 to 2007. Thus, machinima has grown far beyond the context in which it emerged and is today an economic factor in film and television productions and commercials.

The French Duran Animation Studio has so far produced two films that utilize mainly machinima technology: "Ugly Duckling" and Me and "Immortel". Steven Spielberg used the Unreal Tournament engine for preproduction of *A.I.* George Lucas also used the Unreal Tournament engine as a previs tool to plan sequences of his *Star Wars* films.

The advertising industry also discovered machinima. In 2004 Volvo produced the commercial Game:on with the Unreal Tournament engine, and OSRAM, manufacturer of lighting systems, used Second Life.

A variety of music videos are produced with machinima for example, the Zero7 video In the Waiting Line broadcast on MTV using the Quake engine, Suffer Well by Depeche Mode with Sims2.

Several TV formats integrate machinima. MTV2 produces the series Video Mods, which presents machinima music videos. For Time Commander the BBC History Channel used the Rome: Total War engine to reconstruct historic battles of the ancient Romans.

"Molotov Alva and His Search for the Creator: A Second Life Odyssey" a the documentary by Douglas Gayeton was commissioned by the Dutch television broadcaster VPRO in 2006, and shown successfully at various festivals. In 2008 Home Box Office, a subsidiary of Time Warner, bought the broadcasting rights for North America, although it had already premiered on YouTube. To be precisely Molotov Alva was not in game recorded but shot with a high quality camera from the screen.

So we see a variety of commercial applications of machinima.

Last but not least Machinima enables amateurs and fans to become producers of their own computer animated stories. Using a familiar visual and narrative form makes them easily accessible for others. Computer game fans so far produced and distributed many thousands machinima videos. At the same time the social, economic and material relations of production, reception and distribution change which forces the industry to react.

In times of media convergence industries change the way they operate and realized how to profit from the symbiotic relation to machinima in several ways. They reacted on the not predictable consumer needs and included easy to use tools for modifying and film production. This provides for selling content to consumers in multiple ways, strengthen consumer loyalty and in the end increases their attention, which might be the most important economic factor today.

Machinima opens the field of action to a broader circulation and participation, which is an important in-novation stage and essential for achieving a professional level. A serious barrier is the legal uncertainty surrounding the issue that computer game engines are the intellectual property of their producer.

Some producers reacted on machinima's popularity with special licenses. Blizzard Entertainment's "Letter to the machinimators of the world" [11] licensed the limited use of World of Warcraft, and Microsoft Corporation published the "Microsoft's Game Content Usage Rules," [12] an unilateral license for limited use of the games to produce new derivative works. Moviestorm, IClone, VirtualStage are dedicated Machinima packages licensed for making commercial Machinimas. Linden Lab allows in their machinima policy to reproduce, distribute, modify, prepare derivative works of, display, and perform machinima captured in second life outside of Second Life in any current or future media. [13]

Licenses and a clear delineation ensure the legal position of machinima producers and also festival organizers will present more machinima productions if the legal aspects are not in dispute.

So following the approach with the denomination, commercial use and legal issues, we can prove a complete innovation phase – and therefore can see machinima as an independent medium or independent art form.

One aspect is against this view:

Both in inside-out and outside-in productions use highly interactive features of realtime 3D computer games for the production of established linear narratives, which reprocess concepts from film and TV.

In this regard there is a continuing discussion about the uniqueness of machinima as a new art and media form. The potential of machinima as a new medium consists in the procedural - performativ nature of the image and therefore the possibility of real-time production and presentation, which allows live presentations and audience interaction. [14] We have seen that the popular mode of production did not follow this feature. We also have seen that the success of machinima by emancipating from the game engine resulted in cultivating traditional media.

Machinima's strong association with linear narration and aesthetics of film can be criticized since the technology of computer game engines offers interactive potential as never before. However under the perspective of media evolution remediation **- the representation of one medium by another -** appears essential for achieving cultural and social acceptance which is required for a legal and economic frame that matches the new art technique. New art forms like Machinima are not purely product of their technical pre-conditions and artistic will, but in the same way dependent of their potential of meeting with prevailing, historical grown, established and learned conventions of seeing and media competences.

Remediation is not new in the world of art and media. Photography remediated painting and film remediated theatre before they established their own accepted visual and technical concepts. **New media technologies innovate in existing media ecologies [15] and may or may not be integrated dependent on their ability to complete or enhance the existing media forms. Therefore remediation strategically targets reform of its antecessor driven by a new technical possibility. In the case of machinima this counts** more on the process of production than of reception.

Refering to film critic Bèla Balàzs Michael Pigott emphasizes that a new use of form only slowly comes into existence by a negotiation process between artist, medium and audience, which ultimately follows the possibility of communication. [16] The challenge of the artist to develop a new form is accompanied by the probably harder challenge of the audience to understand and accept it.

Although the criticism that, in most cases, highly interactive features of realtime 3D computer games are used to produce conventional linear narratives is correct, we should not overlook the necessity of this step. Machinima shows clearly that media evolution is a process where reference to older media is not a constraint but instead it is necessary for development because it enables increasing popularity and further economic applications and changes to legal structures.

At the moment it is not clear which economically viable forms will emerge out of Machinima, so we shall have to keep on observing which new applications that already exist on an experimental level will become established.

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