Emulation as archive and archival practice

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Abstract: With some alarm, Henry Lowood *et al* describe the looming issue of digital game preservation—posing the question, "What if we do nothing," they argue *de facto* that we are, in fact, doing nothing. I argue that digital gaming industry and culture is organized around a logic of supersession; in the words of James Newman, "the next game is the best game." In this milieu, the practice of game emulation reclaims and relocates the gaming archive. Emulation is legally ambiguous and contingent on evading corporate notice; games are distributed freely through back channels. Emulated games bear the trace of their pirated nature - as a preservation and reproductive strategy, emulation creates an archive that is both fugitive and ephemeral. In the pseudo-anonymous bittorrent swarm and the ROM site threatened with takedown, the work of digital preservation is conducted without sanction, constantly shifting and endangered.

The archive is always already in peril. Unless we act now, it will be lost. So the authors of “Before It's Too Late” tell us—the problem of game preservation is staring us in the face while “the games you are making will disappear, probably in the next few decades.” (Lowood et al., 2009) Strikingly, the authors of the paper mention very little of the enormous community of developers creating ad-hoc emulators to preserve older games, and completely disregard the bootleg trading and distribution of games that has been going on for years. Perhaps this is because they're self-consciously addressing game developers, who likely view emulation as a profit-stealing threat. Perhaps this is because they're concerned with saving the marginalia of games—their manuals, design documents and so on. Regardless, extant emulation practice is rendered invisible. In this paper, I offer a preliminary discussion of the online, borderline illegal practice, development, and distribution of emulators and games—henceforth abbreviated as the “emuscene.” I approach this first through making a large claim, arguing that the crisis foretold by Lowood, *et al* is real, embodied by a games industry organized around an infatuation with newness and nextness. Through this, the emulation underbelly is supported even as it is decried, and works as an archive and an archival practice at the borders of legitimacy.

Unlike other entertainment media, such as film, the distribution of games is remarkably singe-tiered. Whereas we're used to the progression of movies being played in theaters, moving to on demand, then to DVD and so on, games are released and move directly to the second-hand market. Once production has stopped, the number of copies in circulation is rarely increased. While you might think this would result in high prices, you'd be wrong. Used games depreciate rapidly—if you walk into your local games retailer, buy a copy of the last AAA release at $60, walk right in and sell it back, you'd be lucky to get $15 for your trouble. The high profit margins on the repurchase of "old" games entering the secondary market— somewhere around 40%—drives the business model of GameStops, Electronic Boutiques, and other video game specialty stores. More recently, bigger box retailers such as WalMart and BestBuy have entered the arena because of the attractive profits. The working definition of "old" in this case probably extends back 5-6 years—any farther back, and Ebay is likely your best bet.

The creation and consumption of the product of emulation offers an example of what Eugene Levy (1984) has called the “hacker's ethic,” an ideological stance organizing the practice of technological enthusiasts at the fringe. For Levy, hackers approach technology with a ludic attitude, seeking to decode and recover data and processes hidden by the mechanisms of copy protection, to lay bare what Gittelman (2006) identifies as the unknowable functioning of the computational digital device. The hacker's ethic involves free distribution, open source coding practices, and most tellingly, the pseudo-anonymized mobility of an un-policed Internet. Mizrach (1997) defines the term succinctly: “the basis of the Hacker Ethic, then and now, has been a rhetoric of opposition to the idea of intellectual property and the conservative worldview of corporate computing practices.” (p. 138)

The emulator, first and foremost, exists as programmed by a developer, in a certain programming language, to interpret another programming language—that of the game. The emulator ostensibly is a container format, a method to play back other texts. The emulator itself, however, is a historical document designed at a specific time for a specific use. Consider two competing SNES (Super

Nintendo) emulators, bsnes and ZSNES. The former, designed to exactly emulate every behavior of the original console down to the level of code, requires enormous computing power to simply run. The latter, by comparison, uses a number of workarounds to make the emulator workable on almost any hardware setup. ZSNES is intended to be used to play games now, without significant concern for accuracy. Bsnes, by contrast, is a museum emulator—to make the games function as closely as possible to their original use. Both emulators, however, will eventually become outdated as their programming languages become stop being supported; they themselves will require an emulator to run. The emulator, as archival practice, is somehow always *ephemeral*.

The act of emulation bears the trace of the emulator. Like Gittelman's example of the first appearance of the word “internet” in ProQuest's database due to a transcription error, so emulation bears the marks of that which emulates. Some of these traces can, in Byuu's (2011) words, be “maddening”—the music in the title of *Legend of Zelda: Link to the Past* (Nintendo, 1991) running slightly out of sync with the animation—but they mark the game's transition from one platform to another. The invisible text of the emulator, usually hidden from all but the most tenacious, becomes writ large upon the text it reproduces.

Finally, the emulated are the collections of ROM images exchanged, hidden and migrated. The collections of ROMs scattered throughout the web constantly shift and change; their dubious legality making them always subject to potential disappearance. Bittorrent swarms for torrents containing entire catalogs for consoles may be active today, but tomorrow it may be empty, only hinting at its contents. Nevertheless, the discourse of emulation is convinced of its own tenacity—there's a feeling that no matter how many ROM sites are shut down, no matter how many swarms dwindle down, the games will still be “out there,” somewhere in the technological imaginary. The ROM archive is always *fugitive*.

The notion of emulation as an archival practice, as seen through the active gaming practice, is simple on the surface but profoundly fraught beneath. The interaction of the illegality of emulating with the tacit approval of a relatively unconcerned gaming industry has created a free floating archive, hidden except to those with insider knowledge, curated by the shifting bittorrent swarm, the ephemeral ROM site, and the development of emulation at the margins.

References:

Byuu (2011, August 16). Accuracy takes power: one man's 3GHz quest to build a perfect SNES emulator. Retrieved from http://arstechnica.com/gaming/news/2011/08/accuracy-takes-power-one-mans-3ghz-quest-to-build-a-perfect-snes-emulator.ars/2

Gittelman, L. (2006). *Always already new.* Cambridge, MA: MIT Press.

Levy, S. (1984). *Hackers: Heroes of the computer revolution.* New York: Doubleday.

Lowood, H. et al. (2009, March). Before It's Too Late: A Digital Game Preservation White Paper. Retrieved from http://www.igda.org/wiki/images/8/83/IGDA_Game_Preservation_SIG_-_Before_It%27s_Too_Late_-_A_Digital_Game_Preservation_White_Paper.pdf

Newman, J. (2009, January). Save the videogame! The National Videogame Archive: Preservation, supersession, and obsolescence. *Media/Culture Journal* 12, 3. Retrieved from http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/167