



Unrepresented and Under-represented Video Game History

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We present history as narrative to examine cause and effect, action and consequence, and the way these shape the subject of that history. Without these, what is the point of history?

The desire for narrative structure influences research; one looks for connections between events, influences, motivations, shared origins, diverging alternatives, and closure to round off with. The dangers, of course, are that we see past things differently when we retroactively identify them as precursors, see concurrent events as competing or complementary instead of coincidence, see outcomes as endpoints, and find progressions where none exist. When narrative is given center stage, the result is often more journalistic than scholarly, and less useful even though it may be more memorable.

Of course, history is not random, and stories do occur; it's really a question of how tightly we demand that data adhere to the structures we propose for them, how much we have available, and the degree of ambiguity that is appropriate. It's also a question of scope and scale. In the case of video games, narratives can cover the entire history of video games, or a national or local history; it can chronicle individual inventors or innovations, companies, technologies, or, most abstractly, formal properties as they develop over time, or even game genealogies tracing variations on ideas that lead from one game to another.

For example, one can trace the roots of Namco's *Galaga '88* (1987) back to the Ralph Baer's early home video game prototypes. Baer's early Ping-Pong games eventually led to the Magnavox Odyssey, which was seen and played by Nolan Bushnell, and inspired *PONG* (1972). Bushnell and his employee Steve Bristow replaced one side of the screen with a grid of bricks, rotated the screen a quarter turn, and came up with the design for *Breakout* (1976). *Breakout* inspired Tomohiro Nishikado to create a similar game in which the grid of bricks was replaced with a grid of aliens and allowed the player-character and the aliens to shoot at each other. Nishikado's game, *Space Invaders* (1978), inspired the design of Namco's *Galaxian* (1979), which added a wraparound screen, colored sprites, and enemies that would occasionally charge down at the player-character. *Galaxian*'s success led to a sequel, Namco's *Galaga* (1981), which added such features as enemy tractor beams, a capturable ship, the ability to shoot more than one projectile at a time, and a recurring "Challenging Stage". *Galaga* itself inspired a sequel, *Galaga '88* (1987), which included even more new features. Thus, *Galaga '88* can be seen as the descendent of several video games, its genealogy reaching back two decades.

Availability of data, or lack of it, is one of the main sources of inevitable gaps and distortions. Inaccessible corporate documents, lost records, extinct technologies, cultural practices that were never recorded, or rare entities out of one's reach leave holes and elisions in one's work; while hearsay, secondhand anecdotal evidence, subjective recollection, and emulation, raise questions regarding accuracy, even as they try to fill gaps. Still, such sources have value and can present useful and interesting historical narratives, and a number of these were used in my collection entitled *Before the Crash: Early Video Game History* (2012). The most narrative essay in the collection, on the rise and fall of the company Cinematronics, was written by industry veteran and former Cinematronics game designer, Tim Skelly. While Skelly's involvement in the story he tells may make it more subjective, it still provides material not available to an outside researcher, but rather the kind that would be available through interviews, which would be just as subjective.

The problems involved in doing video game history are unique even compared to other media histories, due to the hidden code which is usually inaccessible. A copy of a video game without the technology to run it will reveal little. Code without a machine to run it will likewise be limited in use. Arcade games are often difficult to find, and mainframe games have survived mostly as emulations, when they have survived at all, and neither can be lent out easily in their original form by an archive the way home games can be. And even home computer games from the 1980s and 1990s cannot be played unless one can find the proper working systems for them. It is no wonder, then, that so much of what is written about video games is about home games from only the last decade or so, although this trend is changing.

When Greenwood Press asked me to compile the history that would become *The Video Game Explosion: A History from PONG to PlayStation and Beyond* (2007), there was no comprehensive academic history of video games; Leonard Herman's *Phoenix: The Fall and Rise of Videogames* (1994) focused on home games, and Steven Kent's *The Ultimate History of Video Games: The Story Behind the Craze that Touched Our Lives and Changed the World* (2001) was more journalistic and interview-based. Scholarly work on arcade games was very limited, so I had to read through some 4000 webpages of the KLOV (The Killer List of Videogames) and luckily I had visited Videotopia in 1997, playing dozens of arcade games in their original cabinets and getting to know curator and collector Keith Feinstein, who was usually available to answer questions.

Another area that is unrepresented or under-represented, in English, anyway, is video game history beyond North American shores. Most English-language histories focus on the United States, with some Europe and maybe a bit of Japan included. I managed to get contributors for chapters in *Video Game Explosion* on Europe, Asia, and Australia, although the chapter on South America fell through. However, by the time I was editing the *Encyclopedia of Video Games: The Culture, Technology, and Art of Gaming* (2012), I was able to find contributors for twelve entries, each on a different country, as well as separate entries on Central and Eastern Europe, Western Europe, Africa, Latin

America, and the Middle East. The glimpses of video game history that these entries provided encouraged me to propose the book *Video Games Around the World*, which is now forthcoming from MIT Press.

Video Games Around the World is composed of 39 essays, each of which is about a different country or region, covering all the world's continents. Most of the authors are natives of the countries they are writing about, and many of the essays will be the first national histories to appear in the English language. A good number of these essays present their histories as stories, even though contributors were not asked to use a narrative format. Here, too, the narratives are shaped by available materials, since the national and cultural contexts that video games are found in differs so much from one country to another. The essays can also be seen as simultaneous threads in the much larger narrative of global video game history, which, it appears, will take some time and effort before it can be fully told.

Finally, narratives of video game history are starting to include more of the marginal areas surrounding mainstream video game production and culture, particularly in the areas of art games, indie games, experimental games, and homebrew games. While still largely unknown by the public, these games are gaining increasing visibility due to the Internet, where many of them can be found and downloaded. These games should be included in larger narratives about video game history, as breeding grounds for innovation, game culture, and retrogaming.

So the question then, is what does one's narrative have to say about video game history; how will it, in turn, influence future decisions and directions that video games will move in? What does it mean, that the arcades have mostly died away, at least in most of North America, or that on-line games dominate so much of the global scene, or that Nolan Bushnell is now back at Atari, or rather, the company that inherited the original Atari's intellectual property and name? What will the image of video game history be like once more of the world's video game stories are told?

We are currently training the first generation of video game designers who will actually have a background in video game history beyond what they grew up with, so how will that influence the kind of games that will be produced over the next few decades, and beyond? Video games themselves may even influence the narratives that are told of their history. Video games have advanced the ideas of interactive narrative, certainly, and an interactive history of video games cannot be far away. Such a history would allow users to follow their own narrative threads throughout the entire narrative fabric of video game history as a whole, tracing out designer's lives, companies' existences, formal influences, and other chains of cause and effect interactively. But even this will not be entirely new. Researchers aiming to find answers or make connections have always had a game-like experience when puzzling together the pieces of history, and helping to bring unrepresented or under-represented video game history to light.

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