

Flash, Newgrounds and the convergence between the story of the Internet and video games

Flash, Newgrounds y la confluencia entre la historia de Internet y el videojuego

Flash, Newgrounds e a convergência entre a história da Internet e os videogames

7

ARTICLE



Tomás Grau de Pablos

Autonomous University of Barcelona (Spain)

He is a PhD researcher in East Asian Studies and Game Studies from the Autonomous University of Barcelona. He is currently part of the GREGAL research group: Cultural circulation Japan-Korea-Catalonia/Spain of the Autonomous University. His current line of research focuses on the study of cultural relations between the Japanese video game industry and the rest of the creative industries, both Japanese and Euro-American.

tomgradep@gmail.com
0000-0003-3073-8199

RECEIVED: April 01, 2021 / ACCEPTED: January 31, 2022

Abstract

The emergence of the Internet in the 2000s brought artistic movements and the generation, distribution, and reception of works that were isolated in the virtual sphere but ended up fundamentally influencing the configuration of popular culture. A key element of this process was the Flash editing program, responsible for providing consistency and stability to most of the web pages of this era. This article will analyze the relationship between the most dynamic communities and this program, paying special attention to the purely interactive

and, by extension, videoludic character that it has fostered over the years, and its future prospects.

KEYWORDS

Cultural Studies, Media Studies, Game Studies, Genealogy, Art History.

Resumen

La eclosión de Internet en los 2000 trajo consigo movimientos artísticos la generación, distribución y recepción de cuyas obras quedaron aisladas al ámbito virtual, pero acabó influyendo de forma fundamental en la configuración

de la cultura popular. Un elemento clave de este proceso fue el programa de edición Flash, responsable de dotar de consistencia y estabilidad a la mayor parte de las páginas web de esta época. Este artículo analizará la relación entre las comunidades más dinámicas y este programa, prestando especial atención al carácter netamente interactivo y, por extensión, videolúdico que ha fomentado con los años, y sus perspectivas de futuro.

PALABRAS CLAVE:

Estudios Culturales, Media Studies, Game Studies, Genealogía, Historia del Arte.

Resumo

A expansão da internet nos anos 2000 trouxe consigo movimentos artísticos cuja geração,

distribuição e recepção de obras permaneceram isoladas da esfera virtual, mas acabaram influenciando fundamentalmente a configuração da cultura popular. Um elemento-chave desse processo foi o programa de edição Flash, responsável por fornecer consistência e estabilidade à maioria das páginas web dessa época. Este artigo analisa a relação entre as comunidades mais dinâmicas e este programa, dando especial atenção ao carácter puramente interativo e, por extensão, videolúdico que tem vindo a fomentar ao longo dos anos, e as suas perspectivas futuras.

PALAVRAS-CHAVE

Estudos Culturais, Media Studies, Game Studies, Genealogia, História da Arte.

1. RESISTANCE TO ANIMALIZATION ON THE INTERNET: TOWARDS A RETURN OF THE GREAT NARRATIVES

The 2000s were a turning point in the field of social and cultural studies, as they were a testing ground for many political theories and practices that predicted the end of history and the entry of human beings into an era without narratives. With the global impulse of capitalism at the end of the century, the end of the Cold War and the unification of several monetary currencies, it seemed that the cultural reality of the nineties pointed towards an intensification of the hegemonic processes that the political and economic convulsions of the Eighties materialized. However, certain major political events such as the attack on the Twin Towers in 2001

or the Atocha metro attack in 2004 and some natural disasters such as Hurricane Katrina in 2005, the Haiti earthquake in 2010 and the Tohoku tsunami in 2011, have led to a “renarrativization” of political and social life that collides diametrically with ahistorical interpretations of the period. Whether through a resurgence of earlier political formulations like Marxism and anarchism (because of the increase in the number of people who identify with them) or through the rise of radicalisms that caused the rise of fascism in the 20th century, we are living a period in which our priority is to direct our activity and existence towards the achievement of defined political projects.

This evolution of thought among youth can be seen especially in the behavior of various consumer groups and enthusiasts of mass culture such as that from Japan and that of video

games, which during their rise in the eighties and nineties were tended to point out as an exemplary prototype of the historic drift that societies took. Whether it was through a highly optimistic and somewhat naive study of the subversive potential of these fan communities (Jenkins, 2010), or through a more pessimistic vision that stressed the inevitable transformation of these groups into “animals” that collect databases (Azuma, 2009). The interpretation of some differentiated researchers exhibits a vision of the world in which great narratives have disappeared, and cultural signifiers have been emptied.

However, what the increasingly pronounced rise of online communities in the 2000s has come to show is that, far from fully immersing themselves in this trend, today’s consumers continue to participate in totalizing narrative frameworks and saturating cultural signs with specific meanings of their personal and community practices. Broadly reflecting the same fragmented trends as fans of previous decades, fans of shows as varied as *Steven Universe* (Lelash et al., 2013-2019), *Sherlock* (Eaton et al., 2010-2017), *Hannibal* (Alexander et al. al., 2013-2015) and the animated film *The Lorax* (Renaud, 2012) generate a seemingly endless stream of alternative interpretations, build their own narratives, and configure their identity in real time. At the same time, the mainstream of these communities lacks much of the subversive potential that Jenkins interpreted during his fieldwork. Instead, they are more interested in extolling their consumer objects, and on many occasions, they are enthusiastic participants in the marketing campaigns on which many of their works are based (Aquila, 2007). Although these activities continue to promote a culture

of participation, their efforts and impulses are being channeled more or less directly through margins of action that easily fall under the umbrella of “participatory propaganda” described by Asmolov (2019).

2. INTERNET AND SUBCULTURAL COMMUNITIES: CREATION OF ONLINE COMMUNITIES THROUGH CONSUMPTION AND RESIGNIFICATION OF SYMBOLS

In short, what the last two decades have come to show, in the face of our way of interpreting culture based on the rise of digital media, is that a good chunk of the predictions made by proponents of the “end of history” have been severely invalidated by historical drifts that point towards an intensification of processes that were considered outdated. Now, this does not mean that a significant portion of the observations made by these researchers have become unusable. The notes made by Azuma around the increasingly accelerated atomization of man’s social behavior (which he locates in the figure of the *otaku* and which he suspects will end up affecting the rest of humanity) help explain the immobility that grips many current groups. But in the particular case of popular culture, and especially in the one that concerns us now, it is interesting to see how what seemed like relatively safe predictions have gone in completely unexpected directions.

It is convenient that Hiroki Azuma decides to finish his work on human behavior using a video game as an example (2009, pp. 107-111). Although this author uses the word *otaku* to refer indistinctly to both consumers of anime and manga and consumers of modeling figures and video games, his characterization of the visual novel *Yu-No* (Kanno, 1996) defines an important part of postmodern aesthetics since it prioritizes the selective ordering of narrative and metanarrative elements of a work towards those that are most rewarding. This vision of the act of play is echoed in numerous play design theories and particularly around the study of hypertext carried out by Espen Aarseth in his formative *Cybertext* (1997). Although the subsequent works of the Danish researcher have tried to broaden the umbrella of its application to playful formulas that do not depend on digital platforms, his initial conceptualization of the virtual text as structured in a labyrinthine way (or ergodic, as he himself calls it) reflects the moment, according to Azuma, of the evolution in *otaku* consumption when narrative consumption begins to be replaced by animalistic consumption. That is, a point where the act of consumption is oriented exclusively towards simulacra and not towards narratives (2009, pp. 28-30). A few years later, Aarseth would expand many of the concepts of his original work and would suggest that the primary impulse that guides the players throughout the game constitutes a delicate balance between epiphany and aporia (1999, p. 45): a constant encounter of seemingly indecipherable paradoxes that, when resolved, grant the

player an instant gratification that entices them to continue playing until the next obstacle. Under this descriptive umbrella, the player subject as defined by Aarseth is assumed to have a minimal agency, orients his consumption exclusively towards the elements that generate more emotional or playful affectivity, and remains indebted to the potentialities that the machine can offer. This brings him closer to as defined by Aarseth is who consumes exclusively to find the images that generate *moe* (using terminology typical of the *otaku* subculture) in him. In the *Yu-No* example, we have these two types of individuals (Azuma's animal *otaku* and Aarseth's ergodic gamer) converging into a single figure. Both profiles share the same preferences and desires to order their reading according to personal taste, requires the visual to specifically lend itself to fulfill. And both profiles consume these works preferably for playful pleasure or for the feeling of *moe*.

However, even in the specific case of this work, there are design limitations that guide its range of interpretations towards specific results. Many of these results will be given by the type of implicit player that the designer assumes when configuring the code, derived largely from the communicative framework that the sociocultural context of consumers help to establish. Although it is possible, as Aarseth has continued to do in later years, to continue describing video games as "sign machines" (2001), the meaning that these texts generate ultimately depends on the tools that consumers have when negotiating whatever they extract from

them. What's more, the reverential and ultimately hierarchical treatment that fan communities impose on the consumption of these texts plays a fundamental role in explaining which interpretations achieve normative status and which are relegated as deviations or "perversions" of the primary text.

It is in this context that we must examine the apparently vast phenomenon of Internet fan communities, which began to emerge in the late 1990s and ended up taking over most of the virtual spaces in the 2000s. Although today it is difficult to trace their origin, their popularity is usually located at an indeterminate point between 2000 and 2004, which coincides with the popularization of the Internet in several homes in Spain (Barroso et al., 2018), the United States (Naughton, 2016) and Japan (Aizu, 1998). In the beginning, most of these spaces were exchange spaces where anonymous users shared impressions through paragraphs of text and images, but very soon, they gave way to greater diversity. Among the most popular tools on this platform, Flash stood out especially for its ubiquity. At one point, its presence was critical to the proper functioning of most of the Internet. Among other things, Flash supported the first iteration of YouTube (Warren, 2012) and at one point, it was the backbone of the first online marketing strategies. However, today Flash has achieved notoriety among advertisers and community managers as an unpredictable and unsafe tool, if not completely out of date (Bar-sby, 2015). The lack of trust directed towards this graphic engine by large companies was

evidenced in the 2010s with significant events, such as it being blocked by devices such as the iPad (Jobs, 2010) and browsers like Firefox.

Despite the progressive lack of support from some companies, Flash has persisted as a useful tool for independent artists and authors who have continued to use it for aesthetic or pragmatic purposes. The argument used by renowned authors of the scene, such as Brad Borne (2019), reveals an ambivalent attitude that recognizes the inherent limitations of the engine but also the advantages it offered when it came to allowing a conjunction of plastic and playful expression, especially useful for the educational environment of the Internet. Applying a phenomenological approach to Flash and the platforms it supports, it is possible to categorize it as a system of expression similar to that of traditional animation. In his analysis of the aesthetic peculiarities of this medium, Thomas Lamarre catalogs the composition and the multiplanar image as essential components of the medium's generation of meaning (2009, p. 26). Under this prism, the change that this technology generates in our perception is one in which perception of depth and the sensation of speed are replaced by an aesthetic in which attention is directed to the mediation between the figures, the background, and the space between animation frames.

Although it might seem that this aesthetic sensation fosters a visual paradigm similar to that of surrealist or impressionist painting, its particularity does not rest exclusively in the arrangement of the forms or their chromatic relationship, but in the interaction that these forms experience when they appear to move through a flat space that simulates a three-dimensional environment. This is what makes Flash games stand out. The first animations made with the program allowed limited mobility that required dividing the figures into many separate components to which specific programming routines had to be assigned. This phenomenon is similar to what was allowed at the time by web generation tools such as Dreamweaver. In addition to helping share content that combined image, text, and sound into a single text, it also reflected the mainstream aesthetic that most of the Internet promoted at the time: one where the illusion of movement and vivid imagery was treated as the future to be achieved. Although its use became omnipresent, the place where it was most encouraged was on corporate pages designed to promote films and products derived from the cultural industry, such as trailers and animation series. Some of the most successful cases of Flash animation applied to corporate strategies include the Warner Brothers initiative to create “digital” series around characters from DC comics, specifically around their heroines (Rosenberg & Stein, 2000-2002). This production was developed to serve as a spin-off to the television animation series of the moment. In addition to having the original voice cast, the insistence on respecting the visual style of the original team is contrasted with the rigid and abrupt animation used by Noodle

Soup Productions, which they would explore in greater detail with later series such as *Venture Bros* (Crofford et al., 2003-2018).

The style of rigid, abrupt and unpredictable movement that series like *Venture Bros* and *Metacalyse* (Blacha et al., 2006-2012) has become popular among American adult audiences as a consequence of the type of entertainment that *Newgrounds*, *Kongregate* and online exchange spaces helped build in the late 1990s. A pioneering case is *Homestar Runner* (Chapman & Chapman, 2000-present), an animated series characterized by its unpredictable humor and swift changes in tone. This style of comedy could also be found among independent internet animation like the short story anthology *Salad Fingers* (Firth, 2004-2019) and the satirical fantasy series *Charlie The Unicorn* (Steele, 2005-2021). Less marginally popular are parody animations of popular video game franchises, such as *Black Mages* (Roszak, 2004), *Rise of the Mushroom Kingdom* (Solem, 2003), and *Mario Brothers* (Leon, 2003-2006). Although the content of these stories varied in production values, their common denominator tends to be located around the recycling of known works (mostly from the gaming medium) and endowing them with an internal coherence and style that followed a specific vision of the author. The similarities between this scene and other concurrent ones such as the webcomic (which also tended towards indiscriminate recycling of characters and scenes from other video game) and the *machinima* (Lowood & Nitsche, 2003) show that it was not an isolated event and that obeyed a general tendency. However, it is possible to retract the practices of these communi-

ties to those of previous decades that were also organized around the consumption and generation of fan works, such as those described by Henry Jenkins in *Textual Poachers* (2010, pp. 155-159) and by Sharon Kinsella in *Adult Manga* (2000, pp. 108-112). All these examples have in common a predilection or deference for works from consolidated cultural industries, engagement during the act of consumption and the creation of their own spaces that owe their existence to these primary texts and that, despite everything, acquire values of their own. In short, they are a faithful reflection of the *otaku* trends pointed out by Azuma Hiroki of selective consumption and capricious rearrangement of texts but establishing along the way a hierarchy of preferences that maintains an active negotiation of the best valued texts.

Where this desire to approach the aesthetic and structural preferences of the works that have seen them born can best be verified is in Flash animations that deliberately try to recreate interactive experiences. Although this tool was not initially designed to support video games, its original rudimentary programming language allowed components to be provided with basic artificial intelligence. Many times, however, that A.I. was limited to basic path-finding and small alterations to of the object's elements. These are some of the main reasons why the first popular games tended to require very little player input and were limited to genres with very basic control schemes. In *Newgrounds*, *AEvil* (Larz, 2000) is pointed out as the game that made shooting galleries fashionable, from which works such as *Bush Shoot-Out* (Mini-clip, 2007) and *Matanza Cofrade* (J.C.C.S., 2002)

would emerge. On the other hand, *Mystery of Time and Space* (Albartus, 2001) is usually considered the starting point for the game genre that consists of escaping from a room full of puzzles to be solved.

By the middle of the decade, the updates made to the programming language were significant enough to allow a greater variety of games, especially those oriented towards combat systems. Some pioneering examples of this new wave are *Alien Hominid* (Fulp & Paladin, 2002), *Fancy Pants Adventure* (Borne, 2006), *The Big Adventure of Owata's Life* (King Soukutu, 2007) and *Meat Boy* (McMillen & Refenes, 2008). This era also saw the birth of games capable of imitating popular works such as *Final Fantasy IV* (Sakaguchi, 1991) and *The Legend of Zelda* (Tezuka, 1992), but due to inherent limitations tended to establish themselves as parodies of those works, such as *Epic Battle Fantasy* (Roszak, 2009).

3. EXPLOSION OF CONTENT, ENTRY INTO THE MAINSTREAM AND FORMALIZATION OF COMMUNITIES

Until the late 2000s, the prevailing attitude of communities like *Newgrounds*, *Kongregate*, and *Armor Games* used to favor small, self-referential works, whose influence rarely transcended the communities that saw them flourish. This reality has been maintained to a certain extent today but has undergone substantial changes that are due to both technical and social factors. On the one hand, it is important to point

out the gradual abandonment by various users of the Flash graphics engine, which despite continuing to be updated and expanded, remained behind programming languages like HTML5. Adding to the constant criticism of the program were its rejection and subsequent blocking by the dominant platforms, including the company that supported it in the first place. As noted in the introductory session, Flash has been heavily criticized by all manner of developers and its ubiquity throughout the early Internet was always a major sticking point for users who wanted a more expressive tool. However, its increasingly marginal use by all popular services has endowed it with a certain charisma in recent years mostly induced by the user's nostalgia.

In a less commensurable but equally important way, there is the deterioration in popularity that the platform has experienced over the years, especially among veteran players. Although the spaces of *Newgrounds* and *Kongregate* never stopped promoting personal works, visible consumption trends show clear preferences for formats that differ from the genres associated with Flash. This reality became especially obvious shortly after the popularization of escape rooms, difficult platformers and shooting gallery games such as *The Last Stand* (ConArtist Games, 2007). Even with their visual and stylistic variety allowed within these genres, the tendency to catalogue them around labels reveals an increasingly pressing formalization of the creative space. Once again, this trend is not exclusive and could be found in other fan consumption spaces of the moment. However, it is interesting to point out that, in the consumption spaces dedicated to independent video games, the pressure exerted by the expectations of popularity that emerged at the end of the 2000s played a fundamental role in delimiting the artistic output of these groups.

At this time, it is important to point out the rise of the artistic and creative movement that, over the years, has acquired the *indie* label. Although it is a phenomenon subjected to various economic and political pressures that transcend its original sphere, a key trait identified by authors such as Jesper Juul is the obsession with authenticity (Juul, 2017). In an interview with Robin Hunicke, founder of the *Funomena* studio and an active participant in the movement, this developer points to deep cultural impulses, such as American individualism, as an important factor in understanding the idiosyncrasy and particularity of this development scene. The desire to present an image of authenticity served to lend consistency to what was, for all intents and purposes, a rather motley collection of authors and developers from very different communities. Although the legitimization of this movement was given by the progressive insistence of the media, opinion leaders and marketing campaigns, some texts and activities are usually pointed out as exemplary or paradigmatic of this process. Among the most popular is *Indie Game: The Game* (Pajot & Swirsky, 2012), a documentary dedicated to follow the lives of various authors on the scene, but ended up focusing on three especially popular figures (Ryerson, 2014). Other broader and more inclusive examples of this trend are *Embed with Games*, by Cara Ellison (2015), the independent festival *Indiecade*, and the systematic collecting of opinion pieces like those managed by *Critical Distance* (<https://critical-distance.com/>). If we add to this the growing attention paid to the work of figures like Greg Costikyan, Ian Bogost and Gonzalo Frasca, it is understood that the legitimacy of the *indie* comes from a whole series of disparate elements but that, as a whole, point towards a fundamentally homogeneous view of the video game medium.

In short, what this massive intensification of the process of creating and promoting independent works reveals is an express desire to homogenize and converge the multitude of creative spaces that had been existing for years and direct them in a way that would increase their popularity and diffusion. In the case of the pages that already had a significant baggage of works and fan works, such as *Newgrounds*, their participation in this phenomenon consisted of promoting some of their most popular works, such as *Fancy Pants Adventure* and *Meat Boy*. Companies like *Kongregate* made a conscious effort by creating popularity contests that, following similar guidelines to *Indiecade*, tried to promote the games that stood out the most in a given month. Although many of the winning works followed the same design schemes that had been used for years, it also led some authors to innovate or subvert these schemes. Very popular examples of works that deliberately played with the public's expectations include *The Visit* (Hummel & Winter, 2012), which is presented as a prototypical platform game that subverts its premise the moment you jump on top of the first enemy. Another example of similar subversion includes *You Have to Burn the Rope* (Bashiri, 2008), which does not introduce its subversion until the end of the experience.

In many cases, the type of intentional alteration that is introduced in these texts (and that causes surprise and a sensation of novelty) is centered on a particularly generalized convention within the genre that the work appears to recreate and that alters it in such a significant way that it forces the player to pay attention to that subversion. In this sense, many of these games were pressured to introduce something new or break expectations that, in the context of the *indie* movement, guaranteed media attention. With this observation I do not mean to claim that the games included here were cynical at-

ention-seeking exercises. In fact, many of them were published at a time when coverage was especially low and marginal. In other cases, it is important to point out that the most awarded and celebrated works of the moment tended to come from established studios and with enough economic sustainability to distribute them on major commercial platforms, such as Xbox Live and Steam. This economic discrimination is what explains why, in documentaries like *Indie Game: The Movie*, attention was focused on works that were finished or about to be finished, orchestrated by charismatic directors who had already achieved popularity during the period of saturation of the medium.

Having pointed out this type of drift, it is understood that most of the award-winning and celebrated work of this period obeys design schemes and style conventions that recall the preferences of the communities that nurtured them in the first place, albeit in a more accessible way. Among the most notorious examples is the sequel to *Meat Boy*, *Super Meat Boy* (McMillen & Refenes, 2010) and which pays homage both textually and metatextually to its place of origin. Throughout the game, players progress through levels that present an increasingly complex series of challenges that require reflexes and precision jumping. At some points, it is possible to find secret levels that recreate visual styles from previous technological generations, such as the Nintendo Entertainment System. Others allow embodying (and eventually adopting as a substitute protagonist) the character of a parallel franchise. This makes *Super Meat Boy* a celebration of the artistic and cultural diversity that the *indie* movement represented, while also casting a nostalgic look at its original conception space. Another major point of divergence is the tools used to create the game and the aesthetic effect those tools have on the final experience. While the original

Meat Boy was conceived with Flash and necessarily required more restricted movement, the Unity Engine used for *Super Meat Boy* allows for more refined movement. Returning to the aesthetic conventions pointed out by Lamarre about animation, it seems that Team Meat has gradually moved away from the compositional space favored by so many early Flash games and has embraced a new aesthetic paradigm that rewards kineticism (2009, pp. 5 -6).

Broadly speaking, the shift from Flash-based games focused on multiplanar compositing and image processing to more versatile engine-based kinetic games can be seen in the history of Flash itself. A distinctive example from this era is *Canabalt* (Saltsman, 2009), which uses the then existing iteration of the engine to generate a sense of ever-increasing speed. Although games like this make us aware of the artistic potential that this tool still possessed years after its conception, the reality of the situation was that its presence was diminishing in favor of newer engines. But beyond that, what this process of hegemonization shows is an adaptation of the game possibilities present in these spaces towards distribution logics centered around a few platforms. The progressive filtering of commercial regulators in all these communities reveals two markedly overlapping trends: the rise of the platform as a fundamental filter of consumption in late capitalism (Joseph, 2018), and the submission of various spaces and communication channels to discovery algorithms that condition the possibilities of expression beforehand (Kline, 2014).

4. NEGOTIATION, REPRODUCTION, OR DISSOLUTION: THE FUTURE OF CREATIVE COMMUNITIES ON THE INTERNET

Although the simplification of consumption processes carried out in the virtual space by platforms like Steam reduces the range of artistic expressions to be used by independent authors, its imposition does not necessarily imply the extinction of Internet communities. To this day, it is possible to continue visiting *Newgrounds* or *Kongregate*, and the recent popularity of new spaces such as *itch.io* point to an increase in the diversity of the Internet, not the other way around. Where the impact of these platforms is most noticeable is in the type of content that these spaces favor. Even with the knowledge gained from visiting these pages for years, it is easy to get carried away by “recommended” and “popular” games on the main page. This tendency to “get carried away” by the alienation inherent in these patterns of consumption has been criticized for years from Marxist circles and is by no means a new observation. The particularity of our period lies in how its presence materializes in virtual space. Perhaps because their presence configures a considerable portion of the type of relationships that we build from technological media, these spaces have exchanged their original condition as generators of online culture for that of negotiators of that culture.

Beyond the efforts to preserve the content of these spaces, Internet communities have acquired new roles as negotiators of content and meaning. Although their perception as generators of popular culture is still maintained in some quarters, their conception as a reflection of the impulses and behaviors of fan culture has changed considerably since the optimistic predictions of Jenkins and the pessimistic ones of Azuma. On the one hand, it is possible to continue observing a trend towards the uncritical reproduction of consumption patterns that the dominant distributors encourage to follow. On the other hand, there is an evident effort to establish contours of self-expression. This trend, as other researchers have already observed (Annett, 2014), can be found in any corner of contemporary fandom, but in spaces that have managed to survive for years, it acquires a specific dimension. Whether that independence can give rise to subversive possibilities or an eventual mechanization of art, right now it allows for venues of expression that do not have to reproduce dominant patterns of consumption or an assumed target audience. Where this alterity is best embodied is in the dynamism of the most recently created websites, such as *itch.io* and the mobile gaming space, and it is no coincidence that they remain some of the most active in the video game space.

Although it is possible to continue accessing *Newgrounds* as if we were living in 2005, the historical pressures of recent years force us to be aware of the changes that have taken place. Its most dramatic form is the disappearance of

Flash and its eventual disconnection by Adobe (Fiadotau, 2020). Discussions around the event and about the need to preserve the works made with this engine caused an alarm that has spread to other communities. The fact that the video game industry has shown a complete lack of interest in documenting or preserving its past has increased the sense of urgency. The mass adoption of surrogate tools or the establishment of community archives like the *Flashpoint* initiative (<https://bluemaxima.org/flashpoint/>) may have served as a temporary corrective, but the question of their long-term sustainability remains. What will happen the day that *Flashpoint* can no longer be maintained or that the *Internet Archive* must close due to legislative pressure? Will it be possible to continue accessing works like *The Visit* with the same ease with which it can be done now? And although, in the end, most of these works come from enthusiastic and self-sufficient communities, can the same be said for works that communities have no interest in preserving? For the average user, these concerns may be a minor issue that only concerns a few fringe scenes. But ignoring the fact that these are fundamental protagonists of the formative era of the Internet and that for this reason alone their protection should be guaranteed, the lessons that we can learn about the way in which these communities reproduce themselves will be useful to all of us when it comes to our turn.

REFERENCES

- Aarseth, E. (1997). *Cybertext: Perspectives on Ergodic Literature*. Johns Hopkins University Press.
- Aarseth, E. (1999). Aporia and Epiphany in Doom and The Speaking Clock: The Temporality of Ergodic Art. In Marie-Laure Ryan (Ed.), *Cyberspace Textuality: Computer Technology and Literary Theory*, 31-41. Indiana University Press.
- Aarseth, E. (2001). Computer Game Studies, Year One. *Game Studies*, (1). <http://gamestudies.org/0101/editorial.html>.
- Aizu, I. (November, 1998). Internet in Japan in Asian Context. https://web.archive.org/web/20190906070654/http://www.anr.org/web/html/archive/old/html/output/98/PAN98_e.htm
- Albartus, J. (designer) (2001). Mystery of Time and Space [videogame *online*]. Personal page. <http://www.albartus.com/motas/>
- Alexander, J., Brancato, C., Colleton, S., De Laurentis, Lightfoot, S., M., Dumas, S., Fuller, B., O'Connell, K., Roth, E., Rymer, M., & Slade, D. (executive producers). (2013-2015). *Hannibal* [TV series]. Dino de Laurentis Company; Living Dead Guy Productions; AXN Original Productions; Gaumont International Television.
- Annett, S. (2014). *Anime Fan Communities: Transcultural Flows and Frictions*. Palgrave Macmillan.
- Asmolov, G. (2019). The Effects of Participatory Propaganda: From Socialization to Internalization of Conflicts. *Journal of Design and Science*, 6. <https://doi.org/10.21428/7808da6b.833c9940>
- Aquila, M. S. (2007). Ranma ½ Fan Fiction Writers: New Narrative Themes or the same old Story? *Mechademia*, (2), 34-47.
- Azuma, H. (2009). *Otaku: Japan's Database Animals*. Publication of the original work ca. 2001. University of Minnesota Press.
- Barsby, A. (July 23, 2015). Why Flash is Bad for Web Design and SEO. *Xanthos*. <https://www.e-xanthos.co.uk/blog/why-flash-is-bad-for-web-design-and-seo>
- Barroso, Z., López, A., & Martínez, J. (Eds.) (2018). *La evolución de Internet en España: del Tesis a la economía digital*. Red.es.
- Bashiri, K. [Mazapan] (designer) (2008). You Have to Burn the Rope [online video game]. Kongregate. <https://www.kongregate.com/games/mazapan/you-have-to-burn-the-rope>
- Blacha, T., Crofford, K. Small, B., & Weidenfeld, N. (executive producers). (2006-2012). *Metacocalypse* [TV series]. Titmouse Inc.; Williams Street.

- Borne, B. (designer) (2006). *Fancy Pants Adventure* [videogame, computer version]. Borne Games.
- Borne, B. (designer) (2019). *Flash Developer on the Death of Flash* [video file]. Youtube. https://www.youtube.com/watch?v=VWQFdahNH2M&ab_channel=BradBorne
- Chapman, M., & Chapman, M. (directors) (2000-present). *Homestar Runner* [animation series]. Personal page. <https://homestarrunner.com/main>
- ConArtist Games (Distributor) (2007). *The Last Stand* [online video game]. ArmorGames. <https://armorgames.com/play/269/the-last-stand>
- Crofford, K., Lazzo, M., Hammer, D., Publick, J., Prynosi, C., & Prynosi, S. (executive producers) (2003-2018). *Venture Bros* [TV series]. Astro Base GO!; NoodleSoup Productions; World Leaders Entertainment; Titmouse, Inc; Williams Street.
- Eaton, R., Gattis, M., Jones, B., Moffat, S., Vertue, B., & Vertue, S. (executive producers). (2010-2017). *Sherlock* [TV series]. BBC Wales; Hartswood Films; WGBH.
- Ellison, C. (2015). *Embed with Games: A Year on The Couch with Game Developers*. Birlinn Limited.
- Fiadotau, M. (2020). Growing old on Newgrounds: Community discourses of technological change. *Firstmonday*. <https://firstmonday.org/ojs/index.php/fm/article/view/10306/9585>
- Firth, D. (director) (2004-2019). *Salad Fingers* [animation series]. Youtube. https://www.youtube.com/watch?v=tP6w22ToHgc&ab_channel=DavidFirth
- Fulp, T., & Paladin, D. (designers) (2002). *Alien Hominid* [video game for computer]. The Behemoth.
- Hummel, B., & Winter, M. [MajusArts y molkman] (designers) (2012). *The Visit* [online video game]. Newgrounds. <https://www.newgrounds.com/portal/view/604582>
- J.C.C.S. (designer) (2002). *Matanza Cofrade* [online video game].
- Jenkins, H. (2010; (original work published on. 1993). *Piratas de textos: fans, cultura participativa y televisión*. Paidós.
- Juul, J. (October 6, 2017). Interview with Robin Hunicke. <https://www.jesperjuul.net/handmadepixels/interviews/hunicke.html>
- Jobs, S. (May 1, 2010). Thoughts on Flash. *Internet Archive*. <https://web.archive.org/web/20140205223542/https://www.apple.com/hotnews/thoughts-on-flash/>
- Joseph, D. (August 9, 2018). Two-Faced: The culture of platform capitalism. *Real Life Magazine*. <https://reallifemag.com/two-faced/>

- Kanno, H. (designer) (1996). *この世の果てで恋を唄う少女* [YU-NO: A girl who chants love at the bound of this world] [video game for computer]. Elf Co.
- King Soukutu (designer) (2007). *人生オワタの大冒険* [The Big Adventure of Owata's Life] [online video game]. Personal page. <http://king-soukutu.com/flash/owata.html>
- Kinsella, S. (2000). *Adult Manga: Culture and Power in Contemporary Japanese Society*. University of Hawai'i Press.
- Kline, S. (January, 2014). The Ends of History and the Tyranny of the Algorithm. *Kinephanos*. <https://www.kinephanos.ca/2014/algorithm/>
- Lamarre, T. (2009). *The Anime Machine: A Media Theory of Animation*. University of Minnesota Press.
- Larz (designer) (2000). AEvil [online video game]. Newgrounds. <https://www.newgrounds.com/portal/view/15>
- Lelash, C.; Miller, B.; Jennifer, P.; Sorcher, R.; Sugar, R., & Wigzell, T. (executive producers). (2013-2019). *Steven Universe* [TV Series]. Cartoon Network Studios.
- Leon, A. [Phantasmagoria-crow] (director) (2003-2006). *Mario Brothers* [animation file]. Newgrounds. <https://www.newgrounds.com/portal/view/107784>
- Lowood, H., & Nitchse, M. (2003). *The Machinima Reader*. MIT Press.
- Miniclip (distributor) (2007). Bush Shoot-Out (online game) [videogame]. Miniclip. <https://www.miniclip.com/games/bush-shoot-out>
- McMillen, E., & Refenes, T. [Bluebaby & dannyBstyle] (designers) (2008). Meat Boy (online game) [videogame]. Newgrounds. <https://www.newgrounds.com/portal/view/463241>
- McMillen, E., & Refenes, T. [Bluebaby & dannyBstyle] (designers) (2010). Super Meat Boy [PC game]. Team Meat.
- Naughton, J. (2016). The evolution of the Internet: from military experiment to General Purpose Technology. *Journal of Cyber Policy*, 1(01), 5-28. <https://doi.org/10.1080/23738871.2016.1157619>
- Pajot, L., & Swirsky, J. (directors) (2012). *Indie Game: The Movie*. BlinkWorks Media.
- Renaud, C. (director) (2012). *The Lorax* [Movie]. Illumination Entertainment; Dentsu.
- Rosenberg, J., & Stein, B. (producers). (2000-2002). *Gotham Girls*. NoodleSoup Productions. https://archive.org/details/softwarelibrary_flash_gotham-girls

- Roszak, M. [matt-likes-swords] (designer) (2009). *Epic Battle Fantasy [online game]*. Newgrounds. <https://www.newgrounds.com/portal/view/493714>
- Roszak, M. [matt-likes-swords] (designer) (director) (2004). *Black Mages [animation archive]*. Newgrounds. <https://www.newgrounds.com/portal/view/176282>
- Ryerson, L. (June 20, 2014). *Indie Entitlement*. <http://ellaguro.blogspot.com/2014/06/indie-entitlement.html>
- Sakaguchi, H. (director) (1994). *Final Fantasy IV [console game]*. Square.
- Saltsman, A. (designer) (2009). *Canabalt [PC game]*. Finji; Kittehface Software.
- Solem, R. [Randy-Solem] (director) (2003). *Rise of the Mushroom Kingdom [animation archive]*. Newgrounds. <https://www.newgrounds.com/portal/view/610276>
- Steele, J. [FilmCow] (director) (2005-2021). *Charlie the Unicorn [animated series]*. Youtube. <https://www.youtube.com/playlist?list=PL-94555807213983FB>
- Tezuka, T. (director) (1992). *The Legend of Zelda: A Link to the Past [console game]*. Nintendo.
- Warren, C. (November 19, 2012). *The Life, Death and Rebirth of Adobe Flash*. Mashable. <https://mashable.com/2012/11/19/history-of-flash/?europe=true>