

# Chance (re)Collections: Twine Games and Preservation on the Internet

Tobias I. Paul

---

## Introduction

When Winter Lake’s digital game *rat chaos* was reuploaded after its host site lapsed, one journalist offered this imperative: “I highly recommend [the game], not least because it’s now playable again after vanishing for a few years, thanks to the hosting of Robert Yang” (Caldwell, 2017). The reuploaded game took on a kind of preciousness following its initial disappearance—after players were made painfully aware of its precarious status (DeNiro, 2019).

Examinations of text often focus on the incarnation of a work—the acts of composition, dissemination, and reception that make up an artifact’s lifespan. What may go unnoticed, then, is the afterlife—the decay, remembrance, and disappearance of text that occurs all-too-often in the digital sphere. While a physical text may enjoy some degree of stability through its medium, the longevity of a born-digital artifact is far more tenuous, relying on unstable platforms and largely arbitrary systems of preservation for survival.

In this paper, I explore how communities and creators are represented and forgotten through digital preservation. In the process, I discuss existing scholarship and media on digital impermanence, Internet archiving, hypertext fiction, and the ethics of preservation. Then, I analyze a set of 20 Twine games in various states of availability, focusing on several representative examples within the dataset. Through this analysis, I observe the quiet, ongoing crisis of Twine games’ decay, and find that these creations take on a kind of preciousness as a result of their ephemerality. This preciousness, if acknowledged and harnessed, activates a social impulse toward preservation—an impulse that content on the digital margins relies upon for its continued existence.

### *(Hyper)textual Renaissance*

*rat chaos* is one of a growing number of digital games on the cusp of disappearance that were produced through the software Twine. Described on its website as “an open-source tool for telling interactive, nonlinear stories” (“Twine,” n.d.), Twine provides an accessible space for the creation of hypertext fiction—interactive, text-dominant creations (referred to in this paper as *games*, although terminology varies) navigated through linked words and phrases, which create an associative web of interconnected passages that “straddle the very threshold

between game and literature” (Underwood, 2016). One of the software’s biggest appeals—aside from being free—is that creators need little to no knowledge of programming languages or videogame design to create with it. As a result, Twine lowers many of the barriers to entry of the traditional gaming industry: education, time, costs of development/publishing/marketing, and more. Further, Twine games are stored as HTML files and can thus be shared and played with near-universal ease. In the words of Twine creator merritt k (2014): “if you can navigate a website, you can play a Twine game.” This overall accessibility has led some to dub Twine “the videogame technology for all” (Hudson, 2014).

In some ways, Twine’s radical potential echoes early examinations of hypertext by digital humanities scholars, who touted hypertext’s capacity to “free the words from the page, the text from the line, the writer and reader from their separateness” (Johnson-Eilola & Kimme Hea, 2003, p. 417). At its core, hypertext is simply “a text which contains links to other texts” (“What is HyperText?,” n.d.) through hyperlinks, which can be used to bring the reader to a new section, document, or site. Early hypertext, however, challenged conventional relationships between writing, writer, and reader, by allowing readers to *participate* in the text; they could choose the order in which to navigate links, and in some cases even exert limited influence over the narrative. In hypertext, the role of the reader “lies halfway between the customary roles of the author and reader in the medium of print” (Bolter, 2001, p. 173).

In the end, hypertext fell short of this initial anticipation. The interactive electronic fiction created through hypertext remained obscure, with even its most notable pieces like Judy Malloy’s 1986 work *Uncle Roger* and Michael Joyce’s 1987 work *afternoon*, a story largely relegated to digital humanities scholarship, outside of mainstream attention. This stands in stark contrast to expectations and speculation that, over time, hypertext would “probably change our way of thinking . . . Perhaps, too, the notion that one can ever finish a ‘book’ may disappear” (Bevilacqua, 1989, p. 162). In the early days of the medium, many believed that the primary impact of hypertext would indeed be on storytelling—that through this new medium, “people would *explore* the story, not read it” (Johnson, 2013).

Rather than turning literary hierarchies on their head, hypertext became an instrument for exploring digital media that was otherwise conventionally constructed, with more traditional, linear forms of writing holding strong in social practice. The use of hypertext navigation became increasingly popular in the structure of the Internet, which can be seen today: “Someone tweets a link to a news article, which links to a blog commentary, which links to a Wikipedia entry. Each landing point along that itinerary is a linear piece, designed to be read from start to finish. But the constellation they form is something else” (Johnson, 2013). This practice domesticated hypertext—making it a central and conventional aspect of Internet navigation—while also “evacuating it of the revolutionary potentials it once held” (Johnson-Eilola & Kimme Hea, 2003, p. 417). Still, hypertext presented—and presents—something desirable, and indeed, valuable;

even now, “the best hypertext still has to offer us is its complexity and openness” (Johnson-Eilola & Kimme Hea, 2003, p. 419).

### *Gaming on the Margins: Precarity, Value, and Loss*

Perhaps as a result of these features, Twine has often served as a storytelling medium for marginalized voices—like that of Anna Anthropy, a prominent Twine creator whose book *Rise of the Videogame Zinesters: How Freaks, Normals, Amateurs, Artists, Dreamers, Drop-outs, Queers, Housewives, and People Like You Are Taking Back an Art Form* is widely credited with putting Twine on the map in 2012. Anthropy, like a number of the software’s most well-known creators, is a transgender<sup>1</sup> woman, and she characterizes Twine as “fertile territory for marginalized voices to grow” (as cited in Harvey, 2014, p. 99). Twine games are known in particular for their prominence in the queer games scene (Poza, 2018), and more generally for stories that explore unconventional, emotionally-charged topics that place the player in a highly interactive role—stories that “wouldn’t be the same in a static form” (k, 2014). The queer subculture that developed around Twine emerges as a kind of digital counterpublic space, seeking to “question or even . . . subvert some of the dominant practices of the public sphere” (Alexander & Rhodes, 2012). In this sense, Twine *queers* game design by challenging the so-called hegemony of play that dominates the mainstream gaming industry and constructs an exclusionary and overwhelmingly white, heterosexual, and cisgender male constituency of both creators and players (Harvey, 2014, p. 96). Further, Twine *queers* narrative itself, as the medium “questions assumptions of book-bound and print-imitative composition . . . [and] more complexly allows users to shape text itself by turning it into a haptic mechanism of progression: you must click to proceed” (Milligan, 2017).

However, Twine’s location on the margins of gaming, and culture more broadly, comes at a price. Twine games’ creation tends to be “contingent on goodwill, just enough, [and] temporary measures, a reality that begs the question of sustainability and the livelihoods of these game designers” (Harvey, 2014, p. 104). In a similar manner, the sharing and preservation of Twine games is dependent on Twine’s creators and players, as well as on the stability of the Internet—a precarious position for a community’s digital cultural memory. This precarity has already taken effect, with untold numbers of games becoming unavailable over time.

Between Twine’s creation in 2009 and the peak of its popularity in 2014, over 1,500 games were created (Arnott, 2014). Of the games I examined—nearly all of which were released within that same timeframe—roughly a third were still available on their original sites until sometime between 2016 and 2019 (see Appendix B). Only in recent years have we begun to observe this phenomenon of

---

<sup>1</sup> Hereafter, *trans*.

ephemerality in full, as more and more Twine games fall out of circulation. The personal archive of Twine developer Leon Arnott—singlehandedly responsible for the majority of archived Twine games in this dataset—was last updated January 21, 2014. Internet archiving tools offer expansive but noncomprehensive opportunities for preservation and often depend on the goodwill or passivity of the games' creators. People are still creating and sharing Twine games today—but what happens when those, too, start to disappear?

There is perhaps something cogent in Twine as a transient medium. In some sense, attempts at preservation may derail or otherwise interrupt this—so perhaps we ought to be more comfortable with impermanence. However, larger ramifications lurk beyond these margins. At its most basic level, the loss of digital games means “we will lose access to the history and culture of contemporary games and find it impossible to trace the influence of interactive digital games and simulations on other forms of play, leisure, entertainment, communication, learning, and work” (Lowood et al., 2009, p. 140). Further, when communities lose access to a Twine creation, they often lose more than just a game. By the nature of the platform and its users, many Twine games tell diverse stories—especially from LGBTQ voices, a community that has long been underrepresented in mainstream media (Townsend & Deerwater, 2019). Twine preservation, then, preserves not just a digital experience, but a cultural artifact.

### *The Internet Is(n't) Forever*

Contrary to common belief, information on the Internet is ephemeral: “once a [website] moves, is taken down, or is updated, it can be impossible to retrieve the original version” (Pittman, 2018, p. 53). Most people have encountered the impermanence and instability of the Internet in some form or another. YouTube videos are taken down; webpages are removed, their URLs yielding only 404 errors (a phenomenon known as *link rot*); blank boxes appear where images used to be. The Internet is inherently unstable, retaining and erasing information in unpredictable manners at unpredictable times (De Kosnik, 2016, p. 48). Rather than an archive or repository of information, it acts as a data-sharing hub that relies on individual human maintenance and upkeep to function.

This presents a particular issue when faced with increasingly born-digital content, which offers no physical, savable backup for digital media. Instead, this data “resides in undisclosed locations inside the enclaves of corporate server farms, on disk arrays we will never even see or know the whereabouts of” (Kirschenbaum, 2013, para. 6), thus denying a hands-on means of preservation. Some even worry that society is headed for a *digital dark age* as a result, wherein “only a tiny portion of the digital record we’re creating right now will be preserved or even readable by future generations” (Wood, 2019).

In the absence of widespread, mainstream archiving efforts, the preservation of digital media is dependent upon the stewardship of its digital communities. One

tool in the arsenal of amateur and professional preservationists alike is the Internet Archive's Wayback Machine (WM). Developed in 1996, the WM serves as an extension of the Internet Archive's mission: "Universal Access to All Knowledge" ("About the Internet Archive," n.d.). The WM is a software which accesses publicly available websites through automated bots called *crawlers* (a process known as *crawling*) and takes interactive *snapshots* of what particular webpages look like at the time of access. That information is stored and preserved in the WM, offering a public record of what the sites looked like at different points in time. This functions as a kind of *version control*—a longitudinal record of Internet history.

While it may sound like exactly the solution the Internet needs, the WM is not without its limitations; at times, the site's own policies work against its purpose (De Kosnik, 2016, p. 50; Lepore, 2015). Most notably, the WM allows website owners to block crawlers through the inclusion of a simple text file, *robots.txt*, in the site's root code ("Using the Wayback Machine," 2018). The policy exists to address potential objections from website and content creators, who may wish for their work to be excluded from these automated crawls, and it potentially shields the WM from some degree of legal/ethical ire. Not only will the addition of a *robots.txt* prevent future crawls; when a crawler encounters a *robots.txt* for the first time, it will also remove all previously saved versions of the site. This policy of total erasure has earned *robots.txt* a reputation as "the [Internet] archive's kryptonite" (as cited in De Kosnik, 2016, p. 50).

Unlike traditional memory institutions—brick-and-mortar archives, libraries, museums, and so on—the digital archive is not a centralized one. The prevalence of non-professionals engaging in digital preservation has led scholars to describe the field of digital cultural memory as an "unregulated, decentralized and multi-voiced character [that] plays havoc with our inherited routines and established protocols" (as cited in De Kosnik, 2016, p. 27). Rather than operating from "core archival concepts, including appraisal, original order, provenance, and the very nature of the record" (Kirschenbaum, 2013, para. 8), non-professional archivists work together to collect and preserve digital media, often in accordance with their own values—seeking to preserve artifacts which they deem meaningful or significant. Digital-based efforts toward preservation serve to illustrate that, while the Internet is itself an inadequate archival technology, it can be harnessed to serve archival purposes in what Matthew Kirschenbaum defines as an essentially *social* effort (as cited in De Kosnik, 2016, p. 51).

Paradoxically, this social reliance can have an isolating effect on digital media with more limited online followings, as is the case for most Twine games. When awareness and enthusiasm for digital content is anything other than widespread, preservation becomes a patchwork endeavor; individuals save and index media by way of their own limited time, interest, and resources, or even by sheer chance. Even more established organizations and websites, like the Interactive Fiction Database (n. d.), rely on manual input and individual contributions in their

indexing of Twine and other texts. In this cobbled-together form of preservation, Twine games can disappear without any indication they existed in the first place. If this aggregation and preservation is non-centralized and reliant on individual efforts, what does this mean for Twine games as a genre, and the people who play them? What gets preserved, by whom, and why?

## Methods

I began my research with these curiosities in mind, seeking out Twine games that no longer existed where they once had. I perused articles, lists, and forums, following links to games and seeking out ones that were more difficult to track down. In the process, I amassed a spreadsheet of 20 games that I cataloged alongside the creator name(s), original year of publication, means of playable access (original sites of upload, the WM, third-party download, etc.), and the most recent year the game was available and/or functionally archived, if applicable.<sup>2</sup>

In this analysis, I draw on that set of 20 texts, a sample of Twine games—by no means complete—across the spectrum of style, recency, popularity, subject, and beyond. My intent in creating this sample was not to capture a representation of overall trends across all Twine creations, but rather to examine trends within the subset of games that exist in more complex states of availability. I began by looking at various aggregations of well-known/well-received Twine games, as texts that have had some kind of secondary coverage offer unique forms of partial preservation. I also aimed to include a variety of prominent Twine creators as well as a number of lesser-known ones. All of the texts are individual Twine games that have been shared and, to varying degrees, preserved online.

### Overview

There are three basic categories of availability within this dataset. A Twine game might be entirely *here*—that is, available on the site to which it was first uploaded and playable in its original, complete form—or entirely *gone*—unavailable online and unplayable anywhere else—or it might be somewhere in between. Of my 20-game dataset, three games are *here* and three are *gone*. That leaves 14 games *in between*.

This gray area of *betweenness*, however, accounts for a broad stretch of the overall continuum. Five games, for instance, just moved host sites and suffered link rot, like Maddox Pratt's *Anhedonia*. At the height of its popularity in 2013 and 2014, media coverage linked to the game via the website of merritt k, where *Anhedonia* was initially hosted. However, in 2015 Pratt moved the game to their itch.io profile—possibly in relation to merritt k's website overhaul, possibly due to Pratt's

---

<sup>2</sup> See Appendix A for Primary Dataset and Appendix B for Ludography.



shift away from Twine in their creative endeavors, possibly for reasons unknown to outside observers. Now these links no longer work; an individual who did not search further than that first link might believe that the game was taken down entirely. A Google search, however, would reveal its presence on the new site.

On the opposite end of this continuum, other games are just on the cusp of being fully gone. Of the 14, four can only be accessed through one webpage: Leon Arnott's personal Twine archive. Arnott preserved 1,638 Twine games up until 2014, offering links to their host sites but also providing a mass download option for a file (a *spool*, as he calls it) containing all of the games in the collection. What this means, however, is that if his website is ever taken down or otherwise made unavailable, there is no recovering these four games—and possibly many others. Of course, if someone has downloaded the spool, it lives on through their computer, to share as they see fit. In this way, the preservation of Twine games is often left to incidental benevolence and chance.

One degree away, there are three games which are preserved on both Arnott's site and on the WM's archive. While the WM is a valuable resource, it also relies on the goodwill of content creators to leave the archives up; anyone can request that an archived page be taken down or excluded from crawls. If that were to happen with any of these games, we would once again have to rely on Arnott's page alone. The remaining two games exist in similarly precarious spaces, with one preserved in the Electronic Literature Organization's collection as well as on Arnott's site, and the other shared across a forum as well as through Arnott and the WM. On the whole, though, the majority of these games rely heavily on the latter two sources for preservation.

In the following sections, I discuss a number of specific games from my dataset, analyzing the degrees of preservation the games experience, the role of anxiety as a catalyst for preservation efforts, the after-effects of incomplete preservation, and the complexity of Twine games' ephemerality. In understanding the implications of preservation for marginalized voices, these artifacts offer insight into the consequences of digital impermanence.

## Analysis

### *Who Gets Saved?: On Access and Anxiety*

In many ways, the digital lifespan of these games points to what Matthew Kirschenbaum (2013) characterizes in "The .txtual Condition" as the "partial, peculiar, often crushingly arbitrary and accidental way that cultural records are actually preserved" (para. 37). When it comes to Twine, it often appears to be a matter of chance or virality whether or not (and to what degree) a game is spared from digital extinction. Perhaps the best-known Twine game, *Depression Quest*, is also one of the best-preserved—largely thanks to its viral role in 2014's

Gamergate controversy. Google’s “Trends” page indicates that at the height of its fame in August 2014, no other Twine game<sup>3</sup> or creator<sup>4</sup> came remotely close to its notoriety. As one would imagine, *Depression Quest* is relatively well documented. It has its original host site, a Steam purchase/download entry, various functional WM entries, extensive media coverage, and over 50 playthroughs and reviews on YouTube. Many of these partial preservations (media coverage, playthroughs, reviews, etc.) occur inadvertently, in the course of some other action. The playthroughs, for example, are generally not intentional acts of preservation. Instead, players and journalists are following an impulse to contribute thoughts and reactions to a cultural artifact, and the preservation inherent in their medium is incidental; “[access is] duplication, duplication is *preservation*, and preservation is creation—and recreation” (Kirschenbaum, 2013, para. 16).

Twine games are not necessarily imbued with a built-in concern for digital longevity. In this sense, Anthropy’s parallel of the medium to zine culture is appropriate. The focus is on creating something strange, countercultural, unconventional, subversive, queer, critical, or otherwise new. As Twine creator Porpentine explains, “[Twine] succeeded precisely because of its violence—because it was suited for guerilla warfare—a cheap, disposable weapon of underdogs” (as cited in Harvey, 2014, p. 97). This points to what many creators have found to be Twine’s biggest strength: the culture of radical creation that has arisen around it.

And so, the focus is not on creating something that is temporally stable and conventionally preservable. This is evident in games like *Everything you swallow will one day come up like a stone*, a complex and lengthy Twine piece about depression and suicide, which was available to download for a single day. Thanks to individual efforts, players can still access the game through various means—a preserved download link on the WM, as well as forums where users have reuploaded the HTML file—in part because the creator, Porpentine (2014), had forewarned them on Tumblr: “This game will be available for 24 hours and then I am deleting it forever…….This game will live through social means only. This game will not be around forever because the people you fail will not be around forever. They are never coming back.” In this case, Porpentine harnesses time as an anxious reminder of ephemerality, and thereby a catalyst for urgency. *One day this will be gone, so you must care about it now, in the present tense.* The focus is on creating something unique and engaging in its immediacy; if a game lives beyond that moment, it is only because of the people who engage with it. But as Twine games continue to suffer neglect of preservation, where

<sup>3</sup> <https://trends.google.com/trends/explore/TIMESERIES/1553226600?hl=en-US&tz=240&date=2007-01-01+2019-03-21&geo=US&q=howling+dogs+game,depression+quest+game&sni=3>

<sup>4</sup> <https://trends.google.com/trends/explore/TIMESERIES/1553226600?hl=en-US&tz=240&date=2007-01-01+2019-03-21&geo=US&q=%2Fm%2F0ch4rj4,%2Fm%2F010qp3z7&sni=3>



does this leave the content for anyone approaching from beyond its imagined lifespan—those who cannot make such a narrow window of access?

### *What Remains: Experience and Identity in Digital Decay*

Even when digital preservation does occur, the methods available to online communities are not infallible. The game *Naked Shades* offers one such example. It was designed to be “the first online multiplayer Twine ever made” (Lamia Queenz, 2013), harnessing real-time player information to create an interactive experience. Playing the game requires other players—not so difficult amid its initial release, when a group of friends or classmates might be able to play locally, but more difficult over time and essentially impossible now, when the host website is unavailable and even the preserved HTML file—which ostensibly imparts the game’s original text, formatting, and content—only allows a single player to progress through about four screens of gameplay before they reach a point that they cannot move past without the multiplayer element intact. Despite having what ought to be the closest artifact to the original upload, the complete game is lost to digital decay.

Other forms of preservation are more innately incomplete. Reviews and journalistic coverage, for instance, tend to include screenshots, quotes, and some kind of reference to the game’s overall plot and play experience, but leave the reader/player to discover much of the game’s secrets for themselves—a difficult endeavor, of course, once the game is no longer available. Databases and articles, which similarly provide little more than the game’s title, creator, a brief summary, and photos, offer a limited record of a game’s existence. *Kim’s Story*, for instance, was originally available through Dropbox, a file hosting service that allows users to share download links to their files. Now, however, the link only offers a generic note (“Error (404),” n.d.): “We can’t find the page you’re looking for.”

So, what is left? An entry on [freeindiegam.es](http://freeindiegam.es)—containing the title, creator, a screenshot, and a semi-cryptic quote from a now-unavailable webpage (Cavanagh, 2012)—and a single student’s blog post for a University of Maryland graduate course on digital humanities (Kaczmarek, 2013). If not for Arnott’s inclusion of this game in his spool, these would be all we have.

What is lost? The writing, for one thing. Without the game itself, all we have of *Kim’s Story* is three excerpts. The first:

When I was a young girl, I was a member of the Boy Scouts.  
The Boy Scouts was my first experience with gamification.  
Here’s a rope.  
Show me what knots you know.

The second: “Of course, girls aren’t supposed to be Boy Scouts at all. I’ll forgive them for making me be one, though. They didn’t know. They just wanted what was best for me.” And the third:

Do you think I’m pathetic?

Yes

No

Without the game itself, we are also at the mercy of the unwitting preservationists. Katie Kaczmarek’s (2013) post on *Kim’s Story* for her UMC course is insightful insofar as it offers a sense of the general arc of the game, but it overlooks an arguably essential part of the story. “She never really explains why she was a Boy Scout rather than a Girl Scout,” Kaczmarek writes. “As a reader, I just felt that I was missing some kind of fundamental background information about her family—and about her, to know why she put up with the activity when she clearly didn’t enjoy it.” The key, in fact, is that the creator is alluding to her own experience as a trans woman—information which can now only be confirmed with one rabbit hole or another of Google and WM searches.<sup>5</sup> Still, even given only the text of the game itself, the trans narrative is evident. Therein lies the issue, however; we will not always have a game’s original text. If *Kim’s Story* were not fully preserved, we would be left only with Kaczmarek’s limited account of the game. Something is lost in that imagined digital decay—and the creator’s identity, often so central to Twine pieces, is ostensibly overwritten by the few who (accurately or otherwise) remember the piece.

### *Killing the Archive: The Disappearance of merritt k*

One case study of particular note is that of merritt k, who gained prominence as a game developer for her early work in Twine. She published a book about Twine, received multiple awards for her games, and was even brought on as the NYU Game Center’s first-ever artist-in-residence (Woods, 2016). Now, however, she has shifted paths. She makes her living as a writer, editor, and podcaster, active on social media but with a much quieter news media presence. Along with that shift came the evolution of her personal website, and the devolution of her Twine games’ availability. When she first began putting out games—starting in 2012, after coming across Twine in *Rise of the Videogame Zinesters*—they were made available on her personal website. As she transitioned away from the medium

<sup>5</sup> As an example: I searched “kim moss’ transgender”, which led me to a post by Mattie Brice (<http://www.mattiebrice.com/category/criticism/>), which mentions Moss in passing and links to a blog post she made. Since the post was on her Tumblr blog (under the name Kim Delicious), which is no longer online, I searched the blog on the WM. By chance, scrolling through the archived page from March 10, 2014 (<https://web.archive.org/web/20140310155721/http://abstractkimbolism.tumblr.com/>), revealed a post titled “Memories Brought Forth By The Word ‘Dialogue’” in which she describes an article she wrote and a man who responded to it, and in which she includes the self-referential phrase, “It was a cis dude, and there was very much the feeling of, ‘Oh, a trans woman said something, time for cis dude to step in and tell her why she’s wrong.’” The same search led me to a page on the personal site of Andi McClure, a game developer who has also done work in Twine, which lists games by trans creators (<https://data.runhello.com/tdov/>) and includes *Kim’s Story* at the top of the record.

around 2014, the games departed from her site but remained available on her itch.io profile (k, 2017a), alongside various zine projects, from 2013 to sometime between 2017 and early 2018. During that time, she gradually decreased the number of games available and finally deleted her profile altogether in the latter end of 2018.

In general, this process happened quietly. In a 2017 interview, k (2017b) addressed the decreasing availability: “In terms of killing a lot of the archive, a lot of it felt personal in a way that I was uncomfortable with. I used to be freer with the things I shared with the internet [until] around 2014, when organized hate campaigns—stuff like Gamergate—got taken to a new level. Not that those kinds of things didn’t happen previously, but being personal online was a much more dangerous proposition after that for a lot of people.” Despite their impact, many of k’s Twine games are now lost to time or relegated to the hard drives of those who downloaded the files prior to their removal. The remnants of the games—three in particular—offer illustrative examples of the effects of preservation in action.

One such game is (*ASMR*) *Vin Diesel DMing a Game of D&D Just for You*. Like the title describes, it is a quick, empathetic game about action-film star Vin Diesel comforting the player by running a short, one-on-one session of Dungeons & Dragons for them. The game was free on itch.io, but only as a download—and without an in-browser play option, the WM could capture only the listing for the game, not the game itself. Fortunately, YouTube playthroughs come to the (partial) rescue. A number of Let’s Players<sup>6</sup> have uploaded playthroughs of the game, perhaps in part for its clickbait-worthy title. As a result, we have multiple playthroughs of the game to reference, although the game remains unavailable for actual play unless a third party reuploads the file elsewhere in the future.

Pivoting thematically, k also created a game called *Consensual Torture Simulator*. In her own words, it is “a compact text game about hurting someone who wants it” (k, 2013). It was available on k’s itch.io for pay-what-you-can starting at \$3. While that paywall is part of the reason the WM was unable to archive it, when the game was available, the payment feature meant that k was able to profit from her labor at a time when many Twine creators were not being paid for their work. During its lifespan, the game spawned a number of journalistic pieces about its noteworthy—if explicit—content. All that remains now is the itch.io and Interactive Fiction Database listings and half a dozen online articles covering it. In terms of the actual content, gameplay, and writing, there remains very little at all—just one text-based walkthrough of the game that features 11 partial screenshots (TamTams, 2013). At this point, it seems this game, too, is lost.

Slightly more encouraging is the preservation of one of k’s earlier games, *Brace*. This game was only ever hosted on k’s personal website and is one of very few of her games to be successfully, functionally archived on the WM. The game was

---

<sup>6</sup> Internet video creators who record and upload themselves playing videogames, usually paired with their own voiceover commentary.

only archived because the Electronic Literature Organization requested it specifically, which is worth noting; many of k's other games have been excluded from the WM, presumably by request. The game was also preserved by Leon Arnott in his spool, meaning that we have not one, but two backups—as well as some media coverage and other partial preservations. However, these retentions pose their own questions. If, as k stated, she removed games that were personal to the point of discomfort, should that decision be respected regardless of the preservation instinct? If so, how can we justify other creators' (e.g., authors of print books) inability to totally retract a text they no longer wish to circulate? In either case, how do we construct a system of preservation which balances the value of preservation with the weight of authorial desire, comfort, and even safety?

## Conclusion

### *Anxious Ephemerality*

Twine's embodiment of digital impermanence—sometimes at the hands of its own creators—points to the essentially social nature of Internet-based preservation. In this capacity, “online archives can only be made stable, reliable, and accessible over the long term by human labor ..... Communities must work to conserve their digital artifacts and rituals, or risk losing them to the digital's proclivity for ephemerality and loss” (De Kosnik, 2016, p. 30). Of the games discussed in this analysis, those still accessible remain so largely thanks to the work of individuals and organizations that have observed this digital proclivity and responded accordingly.

These responses stem from the larger sense of anxiety that fuels digital preservation work. When amateur Internet archivists spoke to their motivation for committing such a vast amount of time and labor to the effort of digital preservation, they cited “their fear of loss, their anxiety over digital ephemerality, and their suspicion that if they do *not* save a community's cultural works, those works will vanish entirely” (De Kosnik, 2016, p. 131). This self-awareness of the ephemerality of a community's own creations fosters the essential urgency behind preservation on the margins—the knowledge that without action, these works will become another casualty of the digital dark age.

Further, the fact that unconventional media like Twine encounters a lack of mainstream concern for and/or effort toward preservation—in stark contrast to attitudes regarding more perceived-legitimate artifacts like print media and film—constructs a value judgement. A simple explanation might suggest that Twine's ephemerality is a direct result of 1) the preservational unruliness of its creations and 2) the lack of large-scale interest the medium received. While these observations are accurate, the rationalization fails to interrogate *why* these

issues have not garnered further attention. The logics of whose creations are retained and whose are lost “operate to produce differential valuations such that people can be *seen* as either eligible for personhood and thereby worthy of social life or ineligible and so worthy of social death” (Ribero & Licon, 2018, p. 154). Preservation is important not because we must be able to fit all media into a normative notion of archival status, or because Twine games must also bend to the expectations of the mainstream gaming industry, but because preservation is an act of evaluation—of saying, *There is something here that is worth keeping*.

### *The Problem with Preservation*

The precarity and complexity of these games’ preservation also points to a question of access. If a game is so buried that finding a way to play it becomes a prerequisite activity to the game itself, who will end up being able to play the game? Who will have the skills, knowledge, and time to find a game, and who will not? Many individuals are not familiar with the WM, and Leon Arnott’s page is not the most readily available site among Google search results. Generally, when someone searches for a Twine game, the top results are the host site (if it exists), a database entry or two (such as the Interactive Fiction Database), and some journalistic and/or fan coverage on third-party websites. And even playthroughs, which are often near-complete in scope, cannot serve to replace the game itself. Because of Twine’s hypertextual, networked construction, any attempt to transfer games to a linear medium—such as a YouTube Let’s Play or a transcription in Merritt K’s book *Videogames for Humans* (2015)—will lose the interactive quality that is essential to their medium. When it comes to Twine, “how we preserve our games [is] just as important as how we play them” (DeNiro, 2019).

And Twine preservation, in particular, comes wrapped in a variety of logistical and ethical concerns. Many Twine games were and are made free-to-play, and the issue of monetary support offers a broader discourse on the valuation of creative work. Websites like itch.io allow independent game developers to upload their creations for purchase, often at flexible—and considerably low, compared to mainstream titles—price points. If someone preserves and shares a game that is or was originally available for purchase, what does it mean to make it available for public access? How can valuing creators and their labor—particularly in creative circles like Twine’s, where many of the individuals are part of marginalized communities that might already experience economic disadvantage—be balanced with the nature of digital, non-professional archiving that usually (if not always) makes the media available for free? And regardless of compensation, what of creators who would prefer that their games disappear, or who consider ephemerality as a core feature of their creative output? Whose wishes should take precedence in the realm of digital cultural memory?

Further, Twine preservations often occur at the micro-level. Rather than preserving a vast swathe of games as a group, the archiving requests on the WM

or downloads and subsequent reuploads of game files on various sites save individual games, one at a time. Internet preservation, and Twine preservation in particular, is an opt-in process: “if you want to save something online, you have to decide to save it,” and even then, “saving something and preventing its destruction are not entirely the same thing” (LaFrance, 2015).

### *A Memory of Eventual Ghosts*

A simple fact: Twine games are disappearing. All signs indicate that they will continue to do so. Between unruly formats, a lack of mainstream attention, and—in the case of creators like Porpentine and merritt k—intentional disappearance, a complete Twine archive is, even now, an impossibility. So why struggle against the inevitable pull of digital ephemerality? The observations and interrogations of this research provide at least a few reasons.

First and foremost, the inherent value of diverse stories cannot be understated. These Twine games, as vessels for queer voices and beyond, have the potential to serve as both windows into lives and experiences totally unknown to the reader/player, and as mirrors through which readers/players can see themselves and their worlds reflected and affirmed (Bishop, 1990). As Twine games’ digital transience takes hold, these unique windows and doors are sealed once more. While not every game can be saved, the rare few that are retained in full are able to keep their gateways open to those who seek them.

Further, digital preservation is not an all-or-nothing endeavor. While preservation on the level of *Depression Quest* undoubtedly has its benefits, it is not the only valuable course of action. The collected remnants of Twine games—whether a result of partial or even incidental preservation—tell their own stories. And even when core elements and context are lost, the remaining shadows realize preservational anxieties, affirming that content on the digital margins remains online at the mercy of these inadvertent assemblages.

What’s more, these remnants leave a message for the future: *something was here, once*. Something was here, and humans held onto it—even if only a few, if only for a time—because it mattered to them. In this sense, preservation is also an act of recognition, of honoring these digital lives. By preserving even the barest elements of Twine games, communities gather the remnants of lost creations in their hands and outstretch them to the inevitable future. When these games disappear, their stories go silent. But preservation speaks. Preservation says, *Something was here. And it mattered. And we remember*.

### *Practical Suggestions for Impossible Futures*

The games featured in this paper offer a snapshot of how and why Twine preservation occurs, pose complex questions about the impact of this preservation on marginalized creators and communities, and showcase the



impact of various methods of distribution on digital longevity. In the end, Twine games may indeed be destined for disappearance. However, there is value in making efforts to preserve these artifacts, even imperfectly. To that end, the observations throughout this paper indicate some preliminary best practices. In this final section, I offer a number of strategies for the preservation and dissemination of digital content on the margins.

Perhaps most evident is the need for sharing. This applies to both creators and players; talk about the games you make, the games you love, the games not enough people are talking about. Seek “ways to honor the labor done by game designers, ways to support their work, that are less tied to profits and institutionalized power” (Jones, 2018, p. 53), but continue to hold space for the complexities that inevitably arise. More broadly, digital games preservation will benefit most from creative thinking wherein creators and players alike work outside of traditional structures and pursue unconventional solutions for the challenging questions that enshroud artifacts like Twine.

In existing records, redundancy is key; the most reliable preservations occur when multiple copies of the game exist in multiple spaces. This includes cross-posting—for instance, offering a game on a personal site as well as a host site like itch.io—as well as indexing—requesting the pages to be saved on the WM or submitting the file to the Interactive Fiction Technology Foundation’s Interactive Fiction Archive (“Upload to the IF Archive,” n.d.). If digital preservation is a fundamentally social process, Twine preservation relies on its active community for continued existence. Even avenues with less retention of the game’s text, like listings on the Interactive Fiction Database, leave footprints which aid in tracing a game’s manifestations across time. And in the face of the seemingly insurmountable impermanence of the Internet, our best hope is leaving as many footprints as possible.

## Afterword

This project was initially completed in May 2019. Some months after, Leon Arnott’s website was updated, and in the process, the Twine archive’s page disappeared. In an instance of meta-archival chance, it remains viewable through the WM, with snapshots as recent as September 23, 2019. The link to download the spool is also archived there, meaning that, at least for the moment, these games live on. However, Arnott (n.d.-a) forecasts this precarity on the “Links” page of his own site: “[The WM] is, to me, one of the fundamental services of the Web - a second chance to recover vanished web pages, or get a glimpse of the past. When, not if, we lose this service will be a tragic day.”

Now, the non-operational archive link forwards to an archive of another kind—a repository of Arnott’s (2014) own creations, rather than the Twine collection it once housed. In the months between the original archive’s disappearance and the site’s update, however, the link hovered in digital limbo. Instead of an index of

not-yet-forgotten games, users were greeted with a 404 error (Arnott,n.d.-b) and a sobering confession: “I am only a humble website... I can’t give you everything.”

## References

- About the Internet Archive. (n.d.). *Internet Archive*. <https://archive.org/about/>
- Alexander, J., & Rhodes, J. (2012). Queer rhetoric and the pleasures of the archive. *Enculturation*, 13. <http://enculturation.net/queer-rhetoric-and-the-pleasures-of-the-archive>
- Anthropy, A. (2012). *Rise of the videogame zinesters: How freaks, normals, amateurs, artists, dreamers, drop-outs, queers, housewives, and people like you are taking back an art form*. Seven Stories Press.
- Arnott, L. (n.d.-a). Links. *Fairy's Voice*. <https://fairysvoice.net/links/>
- Arnott, L. (n.d.-b). 404 not found. *Fairy's Voice*. <https://web.archive.org/web/20200301080207/https://fairysvoice.net/archive/twine/>
- Arnott, L. (2014, January 21). Twine archive. *Webbed Space*. <https://web.archive.org/web/20190923025323/http://l.j-factor.com/twine/>
- Bevilacqua, A. F. (1989). Hypertext: Behind the hype. *American Libraries*, 20(2), 158–162. JSTOR. <https://www.jstor.org/stable/25631477>
- Bishop, R. S. (1990). Mirrors, windows, and sliding glass doors. *Perspectives: Choosing and Using Books for the Classroom*, 6(1), 9–11.
- Bolter, J. D. (2001). *Writing space: Computers, hypertext, and the remediation of print* (2nd ed.). Lawrence Erlbaum Associates, Inc.
- Caldwell, B. (2017, June 1). Have you unleashed... Rat Chaos? *Rock Paper Shotgun*. <https://www.rockpapershotgun.com/2017/06/01/have-you-unleashed-rat-chaos/>
- Cavanagh, T. (2012, November 28). Kim's Story (Kim Moss). *Free Indie Games*. <http://web.archive.org/web/20190720142033/http://www.freeindiegam.es/2012/11/kims-story-kim-moss/>
- De Kosnik, A. (2016). *Rogue archives: Digital cultural memory and media fandom*. The MIT Press.
- DeNiro, A. J. (2019, February 1). Rat chaos and the preservation of early twine games. *Sub-Q*. <https://sub-q.com/rat-chaos-and-the-preservation-of-early-twine-games/>
- Error (404). (n.d.). *Dropbox*. <https://dl.dropboxusercontent.com/u/106579376/KimStory.html>

- Harvey, A. (2014). Twine's revolution: Democratization, depoliticization, and the queering of game design. *G|A|M|E*, 3(1), 95–107.  
[http://www.gamejournal.it/3\\_harvey/](http://www.gamejournal.it/3_harvey/)
- Hudson, L. (2014, November 19). Twine, the video-game technology for all. *The New York Times Magazine*. <https://nytimes.com/2014/11/23/magazine/twine-the-video-game-technology-for-all.html>
- Interactive Fiction Database. (n.d.). *Text Adventure Development System*.  
<https://ifdb.tads.org/>
- Johnson, S. (2013, April 16). Why no one clicked on the great hypertext story. *Wired*. <https://www.wired.com/2013/04/hypertext/>
- Johnson-Eilola, J., & Kimme Hea, A. C. (2003). After hypertext: Other ideas. *Computers and Composition*, 20(4), 415–425.  
<https://doi.org/10.1016/j.compcom.2003.08.014>
- Jones, K. (2018). Game design is not a luxury. In DePass, T. (Ed.), *Game devs & others: Tales from the margins* (pp. 49–53). CRC Press.
- k, merritt. (2013). *Consensual torture simulator*. itch.io.  
<https://web.archive.org/web/20170310220532/https://a-dire-fawn.itch.io/consensual-torture-simulator>
- k, merritt. (2014, July 8). Trans women & the new hypertext. *Lambda Literary*.  
<https://web.archive.org/web/20140818055113/http://www.lambdaliterary.org/features/07/08/trans-women-the-new-hypertext/>
- k, merritt. (2015). *Videogames for humans: Twine authors in conversation*. Instar Books.
- k, merritt. (2017a). merritt k. *itch.io*.  
<https://web.archive.org/web/20170623084727/https://a-dire-fawn.itch.io/>
- k, merritt. (2017b, March 28). merritt k on changing your path (A. R. Spiegel, Interviewer). *The Creative Independent*.  
<https://thecreativeindependent.com/people/merritt-k-on-changing-your-path/>
- Kaczmarek, K. (2013, April 3). Kim's Story: Hypertext as phenomenal cosmic power with an itty bitty utilization. *Introduction to Digital Humanities: ENGL 668K at the University of Maryland*.  
<https://archive.mith.umd.edu/engl668k/index.html%3Fp=1517.html>

- Kirschenbaum, M. (2013). The .txtual condition: Digital humanities, born-digital archives, and the future literary. *Digital Humanities Quarterly*, 7(1).  
<http://www.digitalhumanities.org/dhq/vol/7/1/000151/000151.html>
- LaFrance, A. (2015, October 14). Raiders of the lost web. *The Atlantic*.  
<https://www.theatlantic.com/technology/archive/2015/10/raiders-of-the-lost-web/409210/>
- Lamia Queenz. (2013, April 29). Naked Shades. *Ludum Dare*.  
<http://ludumdare.com/compo/ludum-dare-26/?action=preview&uid=23541>
- Lepore, J. (2015, January 19). The cobweb: Can the Internet be archived? *The New Yorker*. <https://www.newyorker.com/magazine/2015/01/26/cobweb>
- Lowood, H., Monnens, D., Vowell, Z., Ruggill, J. E., McAllister, K. S., & Armstrong, A. (2009). Before it's too late: A digital game preservation white paper. *American Journal of Play*, 2(2), 139–166.  
<https://www.journalofplay.org/sites/www.journalofplay.org/files/pdf-articles/2-2-special-feature-digital-game-preservation-white-paper.pdf>
- Milligan, C. A. (2017, September). En(Twine)d with ergodic rhetoric. *Computers and Composition Online*. <http://cconlinejournal.org/milligan.html>
- Pittman, B. (2018). Why archive the web? *Online Searcher*, 42(6), 53–56.
- Porpentine. (2014, April 10). Everything you swallow will one day come up like a stone. *Tumblr*.  
<https://web.archive.org/web/20201112020822/https://porpentine.tumblr.com/post/82300516837/everything-you-swallow-will-one-day-come-up-like-a>
- Pozo, T. (2018, December). Queer games after empathy: Feminism and haptic game design aesthetics from consent to cuteness to the radically soft. *Game Studies* 18(3). <http://gamestudies.org/1803/articles/pozo>
- Ribero, A. M., & Licona, A. C. (2018). Digital art + activism: A focus on QTPOC digital environments as rhetorical gestures of coalition and un/belonging. In J. Alexander and J. Rhodes (Eds.), *The Routledge handbook of digital writing and rhetoric* (pp. 153–162). Routledge.
- TamTams. (2013, October 30). I played the Consensual Torture game. *Groupthink*.  
[https://web.archive.org/web/20171216214631if\\_/http://groupthink.kinja.com/i-played-the-consensual-torture-game-1454566314](https://web.archive.org/web/20171216214631if_/http://groupthink.kinja.com/i-played-the-consensual-torture-game-1454566314)
- Townsend, M., & Deerwater, R. (2019). Where we are on TV 2019-2020. *GLAAD*.

- <https://www.glaad.org/sites/default/files/GLAAD%20WHERE%20WE%20ARE%20ON%20TV%202019%202020.pdf>
- Twine. (n.d.). *Twine*. [www.twinery.org](http://www.twinery.org)
- Underwood, R. (2016, February 29). Twinescapes, or the rise of spatial hypertext. *Kill Screen*. <https://killscreen.com/previously/articles/twinescapes-or-the-rise-of-spatial-hypertext/>
- Upload to the IF Archive. (n.d.). *Interactive Fiction Archive*. <http://upload.ifarchive.org/cgi-bin/upload.py>
- Using the Wayback Machine. (2018). *Internet Archive*. <https://help.archive.org/hc/en-us/articles/360004651732-Using-The-Wayback-Machine>
- What is hypertext? (n.d.). *World Wide Web Consortium*. <https://www.w3.org/WhatIs.html>
- Wood, M. (2019, April 9). If it's online, it's not permanent. Internet archives can disappear. *Marketplace*. <https://www.marketplace.org/2019/04/09/tech/internet-may-be-a-repository-of-all-human-knowledge-its-not-reliable-storage>
- Woods, T. (2016, September 19). NYU Game Center now has an artist in residence. *Technical.ly Brooklyn*. <https://technical.ly/brooklyn/2016/09/19/merritt-kopas-nyu-game-center-artist-residence/>



## Appendix A: Primary Dataset

Game title	Creator	Year released	Year last available/archived	Primary means of playable access	Availability
queers in love at the end of the world	Anna Anthropy	2013	present	creator's website	here
howling dogs	Porpentine	2012	present	creator's website	here
Depression Quest	Zoe Quinn	2013	present	creator's website	here
(ASMR) Vin Diesel DMing a Game of D&D Just For You	merritt k	2015	2018	NA	gone
Consensual Torture Simulator	merritt k	2013	2017	NA	gone
Naked Shades	Porpentine and Andi McClure	2013	2013	Arnott (limited)	gone
rat chaos	Winter Lake	2012	2015	reupload by Robert Yang, Arnott, WB	ib: link rot
Anhedonia	Maddox Pratt	2013	2017	creator's itch.io, Arnott	ib: link rot
Negative Space	Maddox Pratt	2013	present	creator's itch.io, Arnott	ib: link rot
House Call	Nicholas La Roux	2017	present	creator's Game Jolt profile	ib: link rot
Horse Master	Tom McHenry	2013	2016	creator's itch.io (reupload), Arnott, WB	ib: link rot
Kim's Story	Kim Moss	2012	NA	Arnott	ib: Arnott only
Unbreakable	Meghann O'Neill and Rebecca McKenzie	2013	NA	Arnott	ib: Arnott only
Conversations With My Mother	merritt k	2013	2017	Arnott	ib: Arnott only

electro primitive girl	Sloane Leong	2013	NA	Arnott	ib: Arnott only
Intake	Maddox Pratt	2012	2013	Arnott, WB	ib: Arnott and WB
Brace	merritt k	2012	2013	Arnott, WB	ib: Arnott and WB
Your Lover Has Turned Into a Flock of Birds	Miranda Simon	2013	2018	Arnott, WB	ib: Arnott and WB
The Hunt For The Gay Planet	Anna Anthropy	2013	present	Arnott, ELO	ib: Arnott and ELO
Everything you swallow will one day come up like a stone	Porpentine	2014	present	Arnott, IFArchive, WB, misc. file reuploads	ib: Arnott, WB, and forum

## Appendix B: Ludography

*(ASMR) Vin Diesel DMing a Game of D&D Just For You.* merritt k, 2015.  
<https://web.archive.org/web/20180123212440/https://a-dire-fawn.itch.io/diesel-dm>

*afternoon, a story.* Michael Joyce, Eastgate, 1987.  
<http://www.eastgate.com/catalog/Afternoon.html>

*Anhedonia.* Maddox Pratt, 2013. <https://mr-joyboy.itch.io/anhedonia>

*Brace.* merritt k, 2012. <https://wayback.archive-it.org/all/20130704195741/http://mkopas.net/files/Brace/Brace.html#>

*Consensual Torture Simulator.* merritt k, 2013.  
<https://web.archive.org/web/20170310220532/https://a-dire-fawn.itch.io/consensual-torture-simulator>

*Conversations With My Mother.* merritt k, 2013. <http://l.j-factor.com/twine/>

*Depression Quest.* Zoe Quinn, 2013. <http://www.depressionquest.com/dqfinal.html>

*electro primitive girl.* Sloane Leong, 2013. <http://l.j-factor.com/twine/>

*Everything you swallow will one day come up like a stone.* Porpentine, 2014.  
<http://storycade.com/everythingyouswallow/>

*Horse Master.* Tom McHenry, 2013. <https://tommchenry.itch.io/horse-master>

*House Call.* Nicholas La Roux, 2017. <https://gamejolt.com/games/house-call/295116>

*howling dogs.* Porpentine, 2012. <http://slimedaughter.com/games/twine/howlingdogs/>

*The Hunt For The Gay Planet.* Anna Anthropy, 2013.  
<http://collection.eliterature.org/3/files/hunt-for-the-gay-planet/hunt-for-the-gay-planet.html>

*Intake.* Maddox Pratt, 2012.  
<https://web.archive.org/web/20130210213519/http://maddoxpratt.com/files/therapy.html>

*Kim's Story.* Kim Moss, 2012. <http://l.j-factor.com/twine/>

*Naked Shades.* Porpentine & Andi McClure, 2013.  
<https://web.archive.org/web/20130704174355/http://vote.runhello.com:4334/twine/shades.html>

*Negative Space*. Maddox Pratt, 2013. <https://mr-joyboy.itch.io/negative-space>

*queers in love at the end of the world*. Anna Anthropy, 2013. <https://w.itch.io/end-of-the-world>

*rat chaos*. Winter Lake, 2012. <https://debaacle.us/ratchaos/>

*Unbreakable*. Meghann O'Neill & Rebecca McKenzie, 2013. <http://l.j-factor.com/twine/>

*Uncle Roger*. Judy Malloy, 1986.  
<https://people.well.com/user/jmalloy/uncleroger/partytop.html>

*Your Lover Has Turned Into a Flock of Birds*. Miranda Simon, 2013.  
<https://web.archive.org/web/20180217052125/http://whoops.undo.it/twine/birds.html#4>