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'Like the Burning of the Library of Alexandria': The Death and Deletion of Yahoo! Answers

Abstract

When Yahoo! announced the closure of Yahoo! Answers (Y!A) in April 2021, many across the web humorously equated it to the burning of the Library of Alexandria in 48 BCE. Lacking the drama of a destructive fire, its closure reignited public concern for the preservation of digital content. Even as a joke, the comparison is apt: the decline of Y!A, and the rush to save its contents before their deletion, exposes the complex dynamics of platform closure and web archiving. In this article, we use the Y!A incident as a case study for better understanding the deaths and afterlives of internet platforms. After examining the effects of these closures on platforms' user communities and the actions taken to save this kind of media, we propose changes to the valuation of digital media artifacts and the practices of internet preservation.

Introduction

On the morning of April 5, 2021, Yahoo! made a surprise announcement which sent shockwaves throughout the digital world: Yahoo! Answers (Y!A), its infamous user-generated question-and-answer service, would be permanently shuttered in about a month's time. Soon it seemed as though the entire internet had entered a period of public mourning for a site which had grown into something of an internet mainstay over the course of its fifteen year lifespan. While it had been genuinely useful for some, Yahoo! Answers also gained notoriety as a treasure trove of outlandish and borderline incoherent posts. Over the years, a handful of these posts have transformed into iconic memes including, of course, "how is prangent formed"—a video montage of questions about pregnancy rife with misspellings and woeful naivety. This video, originally uploaded to YouTube in 2016 by user J.T. Sexkik, currently has over 44 million views.[1] Nowadays its comment section has become something of a living memorial for Y!A, of blessed memory.

The announcement quickly sparked concern for what might happen to Y!A's vast repository of user-generated content, with many expressing genuine interest in its preservation. A flurry of retrospectives and op-eds decried the closure, framing it as an attack on cultural preservation and a threat to collective memory.[2] Perhaps most memorably, viral posts on Twitter and elsewhere likened the site's closure to the burning of the Library of Alexandria in 48 BCE. It was a smart, if insincere, comparison: loyal users and other dedicated citizens rushed to preserve as much of the site's content as possible, a formidable task with only a month's notice. Immortalized by dramatic images of marble buildings engulfed in flames, this ancient catastrophe is increasingly invoked as a means of humorously describing the loss or deletion of large swaths of digital content. For instance, another such "Library of Alexandria" moment came in July 2022, when fans mourned the deletion of the official *Wendy Williams Show* YouTube channel.[3] That both Yahoo! Answers and the *Wendy Williams* YouTube channel have been referred to as the "Library of Alexandria" captures the salience of this metaphor: for jokesters and shitposters, almost *anything* could be a Library of Alexandria regardless of its content. These incongruent comparisons, almost always meant to be humorous, equate digital content with the precious knowledge of the ancient world. In doing so, they suggest that the loss of such content would disservice future generations by destroying the cultural artifacts of the present.

Why, then, did Yahoo! finally pull the plug on its Answers platform? The company itself stated that the problem was one of resource allocation and shifting popularity: "[I]t has declined in popularity over the years…. We decided to shift our resources away from Y!A to focus on products that better serve our members."[4]

According to a related theory, the site fell prey to the growing need for content moderation, and Verizon—the company that purchased the U.S. arm of Yahoo! in 2017—was unwilling to pay the cost for a site past its prime.[5] This theory is supported by recent scholarship which positions content moderation as the primary service of platforms in the social media era.[6] The need for this service is particularly acute on platforms which afford anonymity,[7] and the growing expectation of moderation either depends on free labor on behalf of user-moderators,[8] an unrealistic expectation to impose on the aging Answers platform, or paid labor that Verizon was unwilling to provide.

Another simpler explanation for the demise of Y!A is that it fell victim to a quickly shifting market. Y!A debuted in late 2005, and within only a few short years of its launch, social media became the dominant type of platform online. Moreover, Y!A faced stiff competition from Quora, another question-and-answer site which emphasizes expert responses, and Reddit's more open-ended and popular forums.[9] The ecology of the web and its attention marketplace shifted; as technology advanced and competitors emerged, Y!A struggled to retain the popularity it once enjoyed.[10] As a result, Y!A lost its impact and place in the web slowly, but did not "die" until Verizon decided to pull the plug in 2021.

But, as media scholar Frances Corry notes, a platform may be "dead, but not gone."[11] The burning of the Library of Alexandria, remembered as swift and absolute in its destruction, actually set in motion a gradual decline which lasted for several centuries. Some of the communities Y!A fostered during its heyday and decade-long decline survive Y!A itself on other platforms such as Quora, ask. fm, Reddit and others, albeit in modified forms. However, as with other internet media past, the way of being that Y!A and its users created, shaped by the early years of Web 2.0 and enduring in its platform code until the site was shut down, is gone forever, leaving behind only assorted screenshots and nostalgia.[12] Communities may choose their platforms, rather than vice versa,[13] but the affordances of platforms also undoubtedly shape the experience and interactions of their users.[14] This shaping is what makes platforms, Q&A sites in this case, unique from one another. Though Quora and certain subreddits may serve a similar purpose as Y!A did, the functionality itself of Y!A and the feeling of use it engendered are lost to deletion.

The conditions of the site's closure, as determined by Yahoo (rather than Y!A's loyal users), set the bounds of what kind of afterlife Y!A's content would (and could) have. Thus the case of Y!A highlights the role corporate actors play in either promoting or discouraging the archiving of user-generated content. The absence of any sort of official or centralized Y!A archive shifted the work of preservation to users and other external actors. Those with the will and appropriate means could download their own data in the weeks following the announcement, while organizations such as Internet Archive and *Gizmodo* stepped in to archive as much as they could before the shutdown. As predicted, though, most of the site's content was rendered irretrievable upon its closure. Due to the innate affordances of archivability and access on the web,[15] the questions and answers of Y!A—earnest and tongue-in-cheek, mundane and bizarre—*could* have survived to guide and bemuse web users for time to come. Whatever remains of Y!A is incomplete and scattered between disparate unofficial archives. It is hard to guarantee that any specific post or thread survived the closure, and therefore it is even harder to know what was lost in the process.

This essay uses Yahoo! Answers as a case study for examining the death and deletion of internet platforms. We begin by delving deeper into the contours of Y!A's death, first looking to existing literature on platform death before focusing on what this loss meant to Y!A's user community. Next, we consider how archiving does or does not occur across various platforms, and what is lost for both user communities and researchers when unarchived content is permanently deleted, as it was in the case of Y!A. Whereas the "destruction" of Y!A involved the quiet deletion of content from servers, far less dramatic than the raging inferno of Alexandria, it was no less permanent. Thus we conclude with prescriptions that might aid in the prevention of such enormous losses of content again.

The Gradual and Sudden Death of Yahoo! Answers

In Ernest Hemingway's *The Sun Also Rises*, the drunken Scottish war veteran Mike Campbell is asked how he went bankrupt, famously responding, "Two ways. Gradually, and then suddenly."[16] These "two ways" also represent the

two primary paths by which platforms come to die.

The idea of platform death is most closely associated with the disappearance of a site itself and the wholesale deletion of its contents. As the lights go off and the gates come down, users are forcibly separated from the communities they have formed there when general access to the site is removed altogether, such as in the case of Y!A. Though some user communities may migrate elsewhere and certain features may integrate into other platforms, this kind of death is rather absolute and usually irreversible. When the platform shuts down for good, users are left with little if any access to the posts and uploads they had contributed over the years. When closures are announced in advance, some users may attempt to hastily preserve as much of the platform and its content as they can—taking screenshots of iconic posts, quickly downloading metadata, and making arrangements with friends to regroup elsewhere on the internet. The chaos and haste of these pre-mortem activities, spurred by an encroaching sense of absolute non-access, provide the dramatic flare which allowed the closure of Y!A to be likened to the burning of the Library of Alexandria in the first place.

Still, platform death (or the perception thereof) can also arrive in less dramatic fashion, such as in instances in which large numbers of users are shut out by increasingly disruptive paywalls or subscription schemes; cannot keep up with software or other system requirements required to participate; and/or are displeased by the introduction of new content restrictions or the discontinuation of certain features. For instance, when Tumblr announced heavier restrictions on pornography and other sexually explicit content in December 2018, longtime users began decrying the platform's certain death due to a perception that the new rules would cause many to abandon the platform altogether.[17] Indeed, though Tumblr remains active today, many point to the introduction of these new rules as a definitive turning point in its popularity and general relevance,[18] considering the restrictions to be a betrayal of longtime users and communities.[19] In any case, this form of platform death includes a gradual exodus of users choosing for any myriad of reasons to spend their time elsewhere.

In the case of Y!A, platform death included some of each of these trends. Users trickled away to competitor sites such as Reddit and Quora, leaving the site a shadow of what it once was. Probably as a result, Yahoo pulled its support for the platform entirely. While many reactions to the closure (both on social media and in the news) lamented the loss of over a decade's worth of user-generated content—comprising a beautifully eclectic mix of shared knowledge, earnest personal anecdotes and advice, and truly absurd memeing—less prevalent were the perspectives of those few active users who had remained on the platform into the 2020s. Media historian Kevin Driscoll captures this sensation inherent to the rapid evolution of the web: "As the Internet evolves, long-time users mourn the loss of particular programs, practices, services, or interfaces. Favorite sites shut down, loose network connections fade away, daily habits are disrupted. As the technical systems that make up the Internet change, they unsettle the Internet as a way of being."[20]

Y!A was evidently an important social outlet for some users. Take for example El Nerdo Loco, a user that provided over 16,000 answers on Y!A by the time the platform was shut down, most often in the Society & Culture category. El Nerdo Loco commemorated the final hours of Y!A with one final "question" post, writing, "I'll miss most of you and hope you have awesome lives. Those I won't miss, here's hoping you get better one day."[21] Users posting "answers" to this "question" clearly recognized and largely respected El Nerdo Loco, with many wishing them well, even those who had been absent from the site for over a year and had come to pay their respects before the platform shutdown, such as one going by the screenname The Lord is my Shetland. Evidently, Y!A served as a digital space not only for users to ask questions of an anonymous, general public, but—for some dedicated users—also to interact with a consistent community of users over the course of months or years, bonded by a shared interest in a topical category and by a history of interactions in question posts. With the death of the Y!A platform, such communities would lose their communal meeting place and the platform infrastructure and affordances that underlaid their practice of communication with one another.

Many of the posts in the final days and hours of Y!A were heartfelt farewell posts like El Nerdo Loco's. Others represented a goodbye to a different form of engagement with Y!A, one marked by trolling, memeing, and the absurd. Likely inspired

by J.T. Sexkik's viral YouTube video,[22] many users made a final pilgrimage to Y!A to post one more misspelled query about pregnancy, such as "How is babby formed? How girl get pragnent?".[23] Other posts were clearly in the same vein, riffing on the perceived silliness and absurdity inherent to much of Y!A content: "Does drinking milk make you scream?",[24] "What's the phone number for 911?",[25] "Bread? In toilet?",[26] "HOW DO I TURN OFF CAPS LOCK?".[27] Such posts seem less likely to be active users issuing their farewells, and more likely to be others who came to celebrate the platform as it had come to be known in popular culture: a haven for the bizarre that felt somehow representative of the larger Internet. Long after Y!A outlived its initial surge of popularity, the popular media such as Sexkik's videos or the "Final Yahoo" section of the popular podcast, *My Brother, My Brother, and Me* mined the depths of the platform, joyously bringing its most absurd and hilarious posts to the attention of broader publics and making the site an icon of 2000s-era Internet weirdness.

Still other users sought to keep some part of the Answers community alive by migrating to other sites, such as the user Haleema Begum, who asked, "What site will you move to when Y!A shuts down on 4 May?"[28] In the answers to this question, and many others of its kind, Y!A users provided a variety of answers to where they might be moving next: Facebook, Similar Worlds, Answerbag, 4chan, and a wide range of subreddits. For those who moved on to new platforms, the Y!A platform would remain "dead but not gone,"[29] maintaining the structure of feeling created by the platform and its users,[30] but with certain social connections, norms, practices, and traditions adapting themselves to new digital contexts. Other users decided that their forum-posting habits would die with Y!A; though communities may move on from the death of their original platform to find others, they do not do so intact. For some of these users, the death of the platform meant that they could violate norms that once undergirded their community, such as anonymity: "How old are you? We are never going to see each other again so why not answer it? I'm a 63 yo woman from Portugal and you?"[31]

From these posts, it becomes apparent that users respond to the death of a beloved platform in some of the ways they might respond to the death of a person or an offline institution: a remembrance and celebration of life, a fond farewell, a final

effort to remain connected with those met through the deceased. There are ways that Y!A and other shut-down platforms live on—through memories and nostalgia, through user communities on other platforms, through the design of these other digital spaces inspired by or improving upon the affordances of their forebears—but the platform itself, along with its communities and the precise experience it enabled with its affordances and layout, are irretrievably gone.

Deletion & Archiving

A common aphorism in technology education during the early 2010's went something like "be careful what you post online, because it will be there forever." A cursory Google search will return endless results attesting to this line of thinking's widespread proliferation. However, while the intention of the statement is good, cases like that of Y!A are an easy counterpoint to its latter half: things are frequently deleted from the internet, either as individual items or as entire platforms.[32]

"Deletion" has different meanings across various disciplines, but within the context of internet media it refers generally to the permanent destruction of some form of data either composing or facilitating access to media. This infrastructural or cultural data is stored in physical places, on physical media—a fact often missed because of the rare "attention paid to the practical reality of digital storage."[33] Whether a user navigates Twitter's interface to delete a tweet, or a *Yahoo!* administrator purges its platform entirely, it all comes down to the erasure of markings on some data storage assembly in a server bank, likely far away from the people using a site.

There is an ambiguity in internet media deletion though: an uncertainty if it will continue to exist beyond its initial place of posting in some form, or if its deletion is truly permanent. Internet users have a folkloric tendency to preserve and repurpose digital media artifacts, stochastically permuting them as memes—often collapsing their meaning beyond its initial context.[34] However, these individual efforts are just that, random less-than-half-measures up against the vast arrays of often seemingly insignificant internet media. Framed as "leakiness" in the context of slut-shaming and screenshot nude photos,[35] casual media preservation can be understood as a task specifically performed with social or personal

utility in mind, however nefarious that utility might be. Without an impetus for use, seemingly banal texts are likely to be looked over in favor of those more interesting when taken at face-value.

However, more formal, automated caching of websites operates to a similar end, but on a much larger scale. Efforts such as "crawling" programs have been developed to add web pages to the Internet Archive's "Wayback Machine" and the more limited Google "Cached Pages." These archiving programs add to their respective archives based on sites' popularity among users at a certain time, or for certain specific purposes.[36] The purpose-driven saving of pages, while important, presents the same problem as an individual saving pages themself, in that they only capture specific snapshots of a web page's life. While this may preserve the majority or all of the content on more static pages, the often more socially consequential, interactive and changeable sites such as forums and social media highlight the need for more temporally comprehensive archiving. This road leads back to the limitations of physical storage as well. In 2010, the United States' Library of Congress began archiving every single Twitter post, in an effort "to establish a secure, sustainable process" for doing so. In 2017, however, it ceased its collecting: citing increases in the volume of tweets, tweets' size, and in multimedia content attached to them.[37] These reasons have to do with storage space more than anything else, hinting at the fact that preserving and hosting an entire platform requires vast amounts of storage and energy to power it. While the actual energy use for such a task is hard to calculate in the abstract, data centers as a whole use an estimated 200 terawatt hours per year to host 1.1 zettabytes of data,[38] as of 2017, creating 0.3% of global carbon emissions in the process.[39]

The interest of those studying internet media, especially those higher-volume interactive platforms, is not limited to their web pages' textual artifacts though. More often than not, scholarship is concerned with the culture constituting and constructed-by internet media. The continued rise of media archeology as a field[40] indicates an increasing need to decipher cultural information from media artifacts, including those created for the now decades-old internet.[41] The cultures of use and practice on different platforms, and within different online communities on those platforms, is harder to understand after the fact: looking at

incomplete, at best, or selective, at worst, archives of posts and pages as disparate puzzle pieces, rather than as an original, living image. Beyond this simple truth is the problem of cultures' changeability, especially when evicted from their place of residence online, such as in the case of Y!A.

Y!A users are far from the first to fall victim to their online home's discontinuation. For example, many members of the community built around the online puzzle game *Uru: Ages Beyond Myst* moved to different platforms beyond *Uru* itself after the game's developer shut it down in early 2004,[42] a migration sometimes referred to as "The *Uru* Diaspora." This group of players, while initially united by their shared interest in playing the game, changed to become centered around its preservation, restoration, and expansion.[43] While mechanically similar, these sorts of online diaspora regularly occur in different contexts, ideologically or otherwise. Right wing social media users, for example, have created their own social media alternatives after being banned from mainstream platforms.[44] These often shut down too, such as in the case of the Twitter clone Parler. As it became increasingly known for hosting extremist content, it was denied infrastructural services such as web hosting and customer support after it was used to organize violence in the 2021 U.S. capitol riot.[45] Each new platform offers its users different affordances,[46] and operates using different algorithmic mechanisms, which may alter the cultures of its users by changing the way that they engage with one another. These internet realities make it harder to isolate and understand the culture which existed on any given platform's predecessor. This precarity is especially pronounced in instances of forced removal via methods such as banning or total discontinuation, such as in the cases of Y!A and *Uru*, in that the cultural artifacts and data which compose the textual aspects of culture are deleted by webmasters or made inaccessible to the public.

Prescriptions & Conclusion

The incomplete archiving efforts around the shutdowns of Y!A, Parler, and *Uru*, however different their reasons, demonstrate just how challenging it is for informal groups to comprehensively preserve safe copies of internet cultures after the fact, and highlight the need for some more formalized effort to systematically

save internet media from deletion. In an estimate from 2012, the amount of webpages that had at least one archived copy might have been anywhere from 35 to 90 percent.[47] In the time since, the internet has continued to balloon in size, likely complicating existing efforts. In researching Y!A, we have repeatedly run into roadblocks in both the access and completeness of web archives. In our individual work, too, we have encountered similar problems across internet archives. From storage, to archival practice, to access, studies of internet media are inherently fraught, in that it can become unavailable at any moment, and that older versions may not exist in any form. While existing efforts to archive this work are valuable, they are still lacking in completeness, especially in the more everyday uses of social platforms which are of interest to media studies in particular.

To the issue of storage, on a fundamental level, the way that internet archives such as the Wayback Machine and Cached Pages function creates excess data, exacerbating the existing issue of data storage. By saving all design aspects of every webpage, archiving efforts are hindered by mechanical storage capacity requirements. While complete with design elements, these full-page captures take up more storage space than is often necessary to capture content displayed on the page. Finding ways to capture textual and attached data from sites without capturing the pages' design every time, or capturing a page's design once, every so often, and then reconstructing it with those plain data captures. This thought is only one, incomplete solution to address large scale web data storage, and many are needed for archiving this important cultural information. This kind of solution must come before the expansion of archival efforts, for the longevity of these projects as well as for the probable long-term environmental impact of hosting a copy of every webpage ever published on-demand.

There is also a need for a formalization of archival practice and access. This continued access bears clear benefits for academic researchers, including social scientists and historians who would have continued access to massive amounts of data from decades of internet interactions. By extension, policymakers who base their work on such research would also benefit. Moreover, the public also stands to gain from such archiving. On the level of culture and nostalgia, more encompassing archival practices would allow the public to themselves

revisit relics of internet history and view their own past interactions with it, which could be considered a form of compensation for the free labor they contribute to making specific platforms and the internet more broadly function.[48] Moreover, sites like Y!A specifically contain over a decade worth of folk knowledge and opinions which might prove useful for future generations with similar queries. It is likely that this is what is meant when Y!A is compared to the Library of Alexandria: with the death of Y!A, future generations may be forced to search in vain for answers which Y!A once held in its depths. The many possible avenues for web archival practice fall into two categories, broadly: public and private action.

Public efforts generally include those which are government-sponsored or legislatively achieved. As has been suggested by web archive researcher Niels Brügger, this could be states archiving national domains for cultural preservation.[49] A more legislative perspective might suggest that governments implement requirements for website owners to maintain requestable archives of publicly available content, even after they have been deleted or made inaccessible. There are ethical complications to such a proposal, as researchers have described[50] and clarified by efforts in the European Union and elsewhere to codify users' "right to be forgotten."[51] Such a right has been contentious from the start, but itself is complicated by the need for research on online culture, especially in cases pertaining to extremism or otherwise violent activity. Such a right, misapplied, might enable participants in, and organizers and promoters of, violent events to more easily erase their attachment to them. This concern is not to denigrate the need for inquiry into everyday use of these technologies, but rather to highlight the necessity of some kind of review or other process when considering deleting or restricting content published to a public audience, intended or not.

Private efforts are necessarily less binding, but may be more attainable in the short term. Companies should be encouraged to invest in the preservation of their own content, and the content they host, and to provide access to those archives for research. While it is already widely known that these groups collect and sell advertising data in some form or another, it is impossible to know the extent to which that data preserves original texts. This preservation of already published information

is absolutely necessary to understanding the culture of interactive sites and platforms beyond quantitative metrics. If corporations are interested in better understanding, or even steering, the culture they host online, there is no better way to do this than to open that data up to the wider research community. In such cases as that of Y!A, where the data was slated for wholesale deletion, there was little standing in the way of Yahoo! offering that public, user-generated data as a gift to some research or preservation institution. After all, Twitter did just that by providing its archive of tweets between 2006 to 2010 to the Library of Congress.[52]

Finally, an ongoing issue with many archives is that they are hard to navigate, making accessing the data contained therein challenging. While the Wayback Machine is highly traversable on more static sites, it is also full of broken links on faster-paced social sites, which are only partially saved. The challenge of navigating now-defunct sites like Y!A through this kind of archive might deter researchers from looking into it further. Other projects designed to save information from social media sites more selectively, such as the "Deleted Tweets" repository,[53] exist only in highly technical spaces like GitHub, in forms

that are not easy to parse for those without the tools or know-how. As Niels Brügger points out, these barriers-to-entry gatekeep many less tech-savvy people and those perhaps new to the interest from accessing and using the data behind them, and certainly still make the job harder for those of us who *can* manage the work.[54]

None of this is to say that there is not valuable work being done to improve web archiving, rather it is an encouragement to those doing it. Valuable cultural information is lost in moments of deletion: be they small, as in the deleting of a tweet, or large, as in the case of Y!A. It seems wrong that pages, once top Google search results, can suddenly disappear without a trace, or with an incomplete one—leaving our larger questions about them, and the culture surrounding them, harder to answer. Memory and nostalgia may help enshrine the affective experience of using Y!A in the minds of those who were once its users, but these impressions will no longer reach younger generations or provide the internet users of today or tomorrow with once-available answers to important questions: how we know there is or is not a God,[55] how alcohol kills wasps,[56] and whether it is weird to name a baby "Grout."[57]

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