Gone in a Flash: Preserving Moving Image Media Created with Adobe Flash

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ABSTRACT

In July of 2017 Adobe announced that it would be discontinuing it's once widely used Flash Player on December 31st 2020. This announcement raised the question of what will happen to the thousands of animated interactive shorts and video games that were created using Flash animation that currently could only be viewed using Adobe's Flash Player. Preservation efforts need to be considered, or these cultural artifacts from the early days of the internet will be lost forever.

My research explores the preservation efforts to keep Flash media available to the masses which is being made mostly by digital preservation hobbyists. It will also highlight how effective these efforts will be in the long term and what other preservation efforts need to be considered to prevent the loss of this type of media in the future.

KEYWORDS

Digital Preservation, Born Digital, Adobe Flash, Video Game Preservation, Animation Preservation

INTRODUCTION

Flash Animator and the Flash Player that allowed its creations to be viewed was a vital part of the early consumer internet. In a time before Youtube, when buffering of media was a major issue and recorded video could not be supported by any platform, Flash allowed creators to bring moving images to the internet-using public. In addition, with ease, one could create a fully functioning video game that would then often be posted to play for free online. This opened up the gaming community to those unable to afford a physical console and the games to go with it. With the ever looming reality that the Flash Player will soon be a thing of the past, both those who have earned an income off of Flash based media, and those who grew up consuming it have been working to preserve its legacy and keep it accessible.

A BRIEF HISTORY OF FLASH

Flash started life as SmartSketch, a software program for illustration geared towards creatives looking for an easy way to make digital media. It was created by computer programmers and software entrepreneurs Jonathan Gay, Charlie Jackson and Michelle Welsh, released in 1993 by Futurewave Software (Covaleski, 2018). Smartsketch was not very successful in attracting users, but feedback suggesting it be turned into an animation program was received well and Futurewave launched Futuresplash Animator in May of 1996. In December of the same year, Futurewave was purchased by the software company Macromedia, who rebranded Futuresplash as Macromedia Flash 1.0 (Bedingfield, 2019). Macromedia was purchased by Adobe in 2005, and the software was renamed again to Adobe Flash (Covaleski, 2018).

Flash rose in popularity for a variety of reasons; it was free, user friendly, and with its accompanying plug-in player, it could guarantee that media created by the program would run uniformly on any operating system and in any browser (Collins, 2016). These factors led to the creation of thousands of distinct animations and video games that went on to cement the legacies of websites like www.newgrounds.com and www.homestarrunner.com. Both were widely popular with teens and young adults in the early days of the internet. Flash's reliability enabled the creation of popular sites such as Youtube and was also the platform that supported Facebook games that were incredibly popular in the mid-2000's, such as Farmville and Candycrush. Both websites switched to HTML5 as of 2015 (Collins, 2016).

The death of Flash was brought about by two key factors: its incompatibility with the Apple iPhone, and increasing security issues (Bedingfield, 2019). When Steve Jobs wrote his thoughts on Flash in 2010 he highlighted the security issues saying:

"Symantec recently highlighted Flash for having one of the worst security records in 2009. We also know first hand that Flash is the number one reason Macs crash. We have been working with Adobe to fix these problems, but they have persisted for several years now. We don't want to reduce the reliability and security of our iPhones, iPods and iPads by adding Flash."

Flash is also known to be a consistent source of malware attacks despite it's frequent updates (Rash, 2017).

METHODS

For this paper I conducted my research through literary sources and reached out directly to people involved with the preservation efforts. Because this particular topic does not appear to have been written about academically at this time I relied on encyclopedias, trusted news sources, and tech publications. In addition, I relied heavily on websites promoting the preservation efforts of certain individuals as well as blog posts and articles written by those who have spearheaded the preservation effort.

FINDINGS

The largest sources of entertainment based Flash media have been seeing the writing-on-the-wall since around 2007 and started putting preservation efforts into effect well before Adobe announced that it would stop supporting Flash.

Newgrounds

Newgrounds.com, a web portal and online community heavily focused on Flash, has been allowing people to submit their own content to be hosted on its site since 1999 (Fulp). When the site started, community members would post their Flash animations or games to the Newgrounds Flash Portal where other members of the community had a limited time to vote for the content. The popularity of a

particular piece of media at the end of this time period determined whether it would continue to be supported on the site permanently or not (Feldmen, 2017). In 2012 Newgrounds started referring to what was once the Flash Portal as just The Portal, and supporting content in HTML5 (Fulp).

Homestar Runner

Homestarrunner.com is another popular Flash animation website that has been active on and off since 1999. Unlike Newgrounds, Homestarrunner did not host user content. It was a series of cartoon shorts and, to a lesser degree, games, that revolved around the creations of the site owners, Matt and Mike Chapman, also known as the "Brothers Chap." During an episode of *Lost in the Stacks*, Georgia Tech's "Research Library and Rock n Roll Radio Show," the Brothers Chap discussed the future of Homestar Runner with the end of Flash looming. They shared that they have been migrating video content to Youtube. It was pointed out by the show's host that Youtube is not an archive to which the brothers assured him that they are also holding on to high quality digital files in hopes of being able to preserve them on some form of physical media (Lost in the Stacks).

BlueMaxima's Flashpoint

The largest scale preservation to date is BlueMaxima's Flashpoint. The project began in December 2017 when Ben Latimore, a gaming writer, saw no real effort was being made to save Flash games once the Flash Player stops being upgraded; he set out to save as many games and animations as possible by creating Flashpoint. Similar to an emulator, Flashpoint allows all games and animated videos that have been added to its collection to function as it was originally created making the media fully interactive. Specifically, this saves easter eggs that creators added to animations and are often fan favorites, which is not something that happens when Flash is converted to HTML5 (Latimore,2018). The project is open source so any one who is interested in helping can be instructed on how to curate a game which involves testing and adding it to the growing collection (Latimore). As of November 9th 2020, Flashpoint has saved over 59,000 games and 6,000 animations. Included in

those numbers are entire usable versions of both Newgrounds.com and Homestarrunner.com. Bluepointmaxima have set their sites beyond Flash and are currently preserving media reliant on 13 different platforms, one of those platforms being HTML5, the format that most people are converting their flash media to (Latimore).

Flashpoint has encountered some hiccups along the way, mostly in the form of websites and game developers asking for their work to be removed from Flashpoint's free library (Latimore,2020).

DISCUSSION

Flash-created content of the early internet has always had a punk rock DIY ethos and with current preservation efforts we are seeing a very similar attitude. It's exciting to see people stepping up and making the effort to preserve something they love and want to be able to continue to share with others. Flashpoint especially is taking the long view by already considering what other platforms and programming languages might be at risk of disappearing further down the line and proactively including them in this preservation effort. When I reached out to the project creator Ben Latimore and asked about what might happen if he needs to step back from it, he was confident that there would be others involved that would keep the Flash point going *"One of the things I wanted to do with Flashpoint was to make it as easy as possible for someone to pick up my role of maintainer / developer / head curator / what have you, and I like to think I've at least made it possible, if not particularly simple."* With that being said Latimore does not have plans to step away from the project anytime soon (B Latimore, personal communication, April 9th, 2020) .

The issue that preservation of digital media really brings to the forefront is a lack of control both creators and consumers have. When dealing with outdated analog media there is almost always the opportunity to procure an outdated player and learn how to maintain it so the access to content is there even if it does take some effort. Digital on the other hand requires constant vigilance to keep the media in a viewable format.

CONCLUSION

There is a very pervasive belief by much of our society that the internet is forever and born digital materials will never disappear completely, but this is simply not true. The preservation efforts being made by Flash content creators and consumers is important for saving influential parts of the internet's cultural history. Though the Library of Congress does archive many popular entertainment websites through screen captures, the only effort being made to preserve the interactivity of web media are being done by private entities. This leaves the very real possibility that as people grow tired of their personal efforts and the constant need to update platforms and formats that eventually, these moving images will be lost.

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