Live Streaming and Archiving the Hegemony of Play

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"Streamer Mode is enabled. Stay safe, friend." The instant messaging platform Discord displays this warning message when it detects that a user has opened live streaming software. Discord's exhortation to "stay safe" is a reminder to its users to protect their personal information as they broadcast their videogame play over the Internet, but I read this warning differently. Staying safe while streaming for me, a half Black woman, means bracing for potential negative encounters. Will I be called ugly today? Will a viewer offer me money for sex work? Safe streaming means preparing for the reality that a fun gaming session might devolve into something uncomfortable or even abusive depending on who shows up. Some days, safe streaming means not streaming at all.

Dealing with abusive and harassing viewers is a common experience for video game live streamers. It is so common, in fact, that the live streaming platform Twitch.tv offers streamers 21 different strategies they can use to handle problematic viewers. The list of 21 safety strategies suggests that abuse and harassment are something that streamers should learn to expect and deal with. Advice given in streamer communities echoes this sentiment: harassment is going to happen, so ignore it. Act like you do not see it, and if you cannot, maybe streaming just is not for you. The commonality of this narrative can overshadow the fact, documented by streamers, platforms, journalists, and scholars, that marginalized streamers are especially vulnerable to abuse and harassment. In a 2015 white paper published by AnyKey, a female esports athlete and professional streamer called insults from viewers and fans "a regular part of the job" of broadcasting video game play online (2). A 2016 panel about diversity in live streaming at the convention TwitchCon saw its chat spammed with racist abuse attacking Black panelists (Campbell). October 2020 saw multiple ex-employees of Twitch tell their stories of abusive behavior at the company, including sexism, racism, and sexual assault (Sinclair).

Racist and sexist behavior seems to be embedded in live streaming culture, perpetuated by viewers as well as those who create the technology and policy that

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facilitate streaming. Often this kind of abuse is brushed off as an unwelcome but unchangeable part of live streaming culture, something that streamers should expect to happen and expect to never change. Like what Lisa Nakamura has called "glitch racism," harassment from viewers based upon race and gender is discussed as if it is a minor, unpreventable glitch in an otherwise functional system. However, Nakamura pushes us to reject such a complacent stance and instead look at online racism and sexism as deliberative discursive acts meant to exclude certain groups of people from participating in networked sociality.

As T.L. Taylor has argued, the abuse that streamers face from viewers is "a major ethical and business issue" for streaming platforms and live streaming culture that "goes to the heart of full participation not only in media and gaming but also in popular culture writ large" (Watch Me Play 109). Building on Taylor's observation, I argue that abuse and harassment not only threaten the participation of marginalized streamers in videogame and live streaming cultures, but also threaten their presence in the history of those cultures. Live streaming is a participatory archival practice that scholars and historians are increasingly recognizing as a powerful tool for preserving and reconstructing digital culture. However, it is crucial that those who work with videogame and live streaming histories carefully interrogate who does and does not show up in archival materials and, more importantly, why that is so. Toward this end, I ask how gaming and streaming cultures, which are permeated by racism, sexism and other virulent belief systems, shape who shows up to live stream and whose presence is recorded for history as streams become archival materials. I argue that if scholars do not question how the forces that shape participation in live streaming culture also shape the archives used to write histories, not only will scholars and historians fail to represent people of color, queer people, people with disabilities, and others as full participants in gaming and live streaming. They are also liable to write histories that elide the deep-seated presence of discrimination based on race, gender, and other aspects of identity in these influential and growing areas of popular culture.

Live Streaming and/as Archiving

The potential of video game live streaming as an archival practice may not be immediately obvious given the association of live streaming with ephemerality. Crystal Abidin, for example, identifies the increasing popularity of streaming with a shift "from a culture of archived semi-permanent content [like blogs and YouTube

videos] to one of streaming always-transient content" (89). Sarah Handyside and Jessica Ringrose challenge such a clear-cut distinction between archive culture and ephemeral, streaming culture. Social media platforms, they argue, offer users "an intriguing mixture of stickiness and transience, perceived permanence and elusive ephemerality" within which to play as they create and post content (358).

This play between the enduring and the ephemeral is part and parcel of video game live streaming culture. Twitch, the most popular video game live streaming platform in the United States, allows users to create "clips" of streams that are saved permanently on a live streamers' channel. Through clipping, fleeting moments of broadcasts are saved for re-watching and sharing. Twitch also offers streamers the option to archive full recordings of their streaming sessions, though these archived recordings are saved only for a set amount of time (from fourteen days to up to two months, depending on user status) before being deleted from the platform's servers. Live streaming on Twitch, then, sits in the middle of the spectrum between permanence and ephemerality, a location chosen as much for technological reasons (permanently archiving the millions of hours broadcasted each year would be extremely taxing on Twitch's servers) as for cultural ones (streaming, as a form of live performance, is fundamentally different from recording a video to be posted to a video sharing platform like YouTube).

If Twitch positions streaming in a gray area between permanence and transience, how does live streaming constitute an archival practice? Streamers can download their archived recordings and upload them to more permanent homes elsewhere on the Internet, with many users turning to YouTube for this purpose. Both streamers and viewers do this archival work, and work it is: often, uploading a streaming session to YouTube involves editing the full broadcast down into a "highlight" format that curates the most exciting moments of a stream for future viewers to enjoy. As a result, those who put forth the effort to edit and upload their streams to YouTube tend to be those who view streaming as more than just a casual hobby. Fans also participate in this archival practice through the creation of dedicated "highlight channels" on YouTube that save a variety of streamers' broadcasts, with or without the streamers' permission. Together, streamers and fans contribute to a vast, ever-growing, and loosely structured archive of live streamed videogame footage.

The thousands of hours of live streamed footage archived on platforms like YouTube can be instrumental in efforts to preserve and write the history of video game and live streaming cultures. Games are more than just code on compact discs;

while the decay of physical artifacts like cartridges and consoles poses a serious threat to saving video game history (Monnens 140-1), scholars and archivists also recognize that preserving those physical traces of history is not enough. Games are "hugely complex digital objects" that are constantly being updated and changed through software updates (Newman 136); these ever-changing, polyvalent assemblages come into being through the constant labor and interactions of producers, players, and non-human elements (Taylor, "The Assemblage of Play" 333). Preserving games means archiving them in a way that captures how constant updates, remasters and remakes, player-created mods and paratexts, and emergent gameplay experiences all contribute to virtual worlds and connect them to wider cultures (McDonough et al. 9).

Henry Lowood's call for the creation of "game performance archives" to save materials created as users play, discuss, and modify games (15-6) is notable in that it highlights how important players are in shaping video game history. Game performance archives might include player-created objects such as mods, machinima videos, fan wikis, and even fan fiction that illustrate how players imaginatively interacted with games and used them to generate new forms of participatory culture (Winget 1880). Live streams seem a natural and noteworthy addition to such archives. T. L. Taylor argues that live streams showcase a specific form of play called "performative play" (Watch Me Play 86-7). Streams are carefully and intentionally produced performances that emphasize the personality and/or gameplay skills of streamers while facilitating interaction between streamer and viewer. While this means that more mundane, subdued, and casual versions of play that resemble average gaming sessions are rare in live streaming, streams capture a mode of play that is unique to streaming culture. Live streaming and performative play, as the products of an emergent participatory culture, demonstrate how video game culture overlaps with and is embedded in other cultures and communities, providing a richer understanding of the relationship between gaming culture and other areas of digital and popular culture.

Importantly, live streams also preserve video games themselves. Streams show how a game's code comes to life through an encounter with a player whose interactions with code and fellow players are simultaneously recorded. Streams thus save an audiovisual image of how a game looked and functioned at a specific point in time. These recordings of code "in action" are especially valuable as software updates and patches become ubiquitous for all kinds of video games. As a game's code changes over time through the release of patches and updates, so do

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its aesthetics, mechanics, and community. In an industrial context in which game publishers restrict players from accessing previous versions of a game, video snippets of gameplay provide visual access to "a game that no longer exists...[to] a superseded version of the game, one ostensibly removed from public access" (Manning 201). For multiplayer online games, streams also provide a view of gameplay as emergent, embodied, and interactive that is not possible to recreate through emulation, allowing for the study of the kinds of interactive, social gameplay that multiplayer games are crafted to provide.

Live streams, then, record both code and play in action, resulting in an archival document that captures a game "as a lived object – as a playful artifact" (Taylor, "The Assemblage of Play" 332). They preserve for future observation the relationship between code, hardware, player communities, streamers, and viewers. However, the process through which live streams are archived can be fragile. A streamer may forget to enable the archive option on their Twitch channel, which is turned off by default; their broadcasts will never be saved by Twitch and are lost once they end their sessions and say goodbye. Streamers might choose not to upload their streams to YouTube; someone with a small community of only a few viewers may not see a need to save her broadcasts. Roadblocks like these, both technical and cultural, prevent streamers from contributing to YouTube's archive of live streams. In what follows, I argue that raced and gendered abuse is a powerful factor that prevents many streamers from contributing to the live streaming archive.

The potential that streams have for documenting digital cultures and communities necessitates, then, that scholars and archivists examine who is represented in live streaming archives. Michel Foucault has argued that archives are "the first law of what can be said" (129). The materials selected for preservation in an archive shape the possible ways of knowing, talking about, and understanding the archive's subject. Michel Rolph-Trouillot identifies the creation of archives as one critical point in which silences enter the process of history creation (26). As archives are created and compiled, decisions are made that intentionally and unintentionally exclude materials detailing the experiences, stories, and existences of certain people. When those archives are deployed to study and write history, the people and stories that are not present may be impossible to learn and write about, as the traces of their existence are inaccessible to historians. Videogame historians must begin asking questions about the archives they deploy, including and especially archives created through participatory practices like the live streaming archive. Whose faces, voices, and versions of play are saved, whose are not, and

why? Interrogating these questions is key to ensure that video game history does not reflect what has been called "the hegemony of play."

The Hegemony of Play

In 2007, Janice Fron, Tracy Fullerton, Jacquelyn Ford Morie, and Celia Pearce used the term the hegemony of play to explain the overwhelming maleness and whiteness of the videogame industry and gaming culture. The hegemony of play identifies how "the power elite of the game industry is a predominately white, and secondarily Asian, male-dominated corporate and creative elite" that creates games "for self-selected hardcore 'gamers,' who have systematically developed a rhetoric of play that is exclusionary, if not entirely alienating to 'minority players,'" including women, BIPOC, and queer folks (1). Importantly, the hegemony of play encompasses more than just individuals and their internalized biases. From the technologies and business imperatives that drive the game industry to the ways that games are designed for specific players and play styles, the hegemony of play stresses how all aspects of video game culture are implicated in the marginalization of specific groups of people.

There is abundant evidence that the hegemony of play is a powerful structuring force in gaming culture. Popular projects like Jenny Hanniver's "Not in the Kitchen Anymore," for example, collect vivid audiovisual evidence of sexist abuse that real women face during gaming sessions. Scholarly studies have documented the prevalence of sexist behavior among gamers (Fox and Tang, "Sexism in Online Video Games" 317), identified strategies that women employ to avoid sexual harassment while gaming (Fox and Tang, "Women's Experiences" 1301-2), and explored how gaming communities structurally exclude women (Taylor, "Becoming a Player" 54; Taylor, Jensen, and de Castell 248-49; Salter and Blodgett 413). Things are not much better when it comes to BIPOC gamers. There is a wealth of scholarship, more than can be documented here, on how video games (fail to) represent racially diverse characters, while Kishonna L. Gray has done a great deal of work examining how Black and Latinx women handle raced and gendered abuse while gaming ("Intersecting Oppression" 425).

Because gaming culture and live streaming culture are closely intertwined, it is no surprise that the hegemony of play also affects streamers. Abuse and sexual objectification of women are common in live streaming communities (Taylor, *Watch Me Play* 100-11; Nakandala et al. 169-70; Anderson; Ruberg et al. 478-9).

Gray's work also illuminates the racism entrenched in streaming culture: she has shown how Black Twitch streamers are marginalized on the platform for being "too urban" for the platform's white viewership ("They're Just 'Too Urban" 357-8). Twitch, Gray argues, is particularly problematic for Black women due to the difficulty of muting and blocking abusive viewers; the platform's inaccessible moderation functions severely limit Black women's power to control their online spaces and communities (*Intersectional Tech* 118). Her work demonstrates that the intersecting identities of womanhood, Blackness, and (in the case of Afro-Latinx women) nationality make Black women especially vulnerable to abuse and harassment in a culture that is already biased against women and people of color.

The hegemony of play provides a powerful accounting of how industrial practices, technologies, and individual biases together "subordinate and ghettoize minority players and play styles" (Fron et al. 2) in gaming and live streaming cultures. Surveying how the hegemony of play manifests while streaming on Twitch reveals how these forces not only create a raced and gendered landscape on the platform, but also shape who is and is not represented in the kinds of archives that are created through live streaming.

Methodology

My focus on how both technology and culture shape the archives created through videogame live streaming is rooted in Lisa Nakamura's call to understand online racism and sexism as "an effect of the Internet on a *technical* level" (par. 2). Explaining abuse and harassment online away as a "glitch" caused by singular bad actors in an otherwise functional system ignores how technology and culture are co-constitutive. The technology of live streaming, including hardware (cameras and microphones), software (live streaming programs like Open Broadcast Software or Streamlabs), and platform mechanisms (Twitch.tv's algorithms and stream moderation features) contribute to and enable abuse and marginalization. To account for the interconnectedness of technology and culture, I use André Brock's critical technocultural discourse analysis (CTDA) as my broad methodological framework. CTDA provides for "a holistic analysis of the interactions between technology, cultural ideology, and technology practice" by looking at how digital communication technologies constitute and are constituted by wider cultural practices and ideologies (Brock 1013). It is a multimodal approach that calls

researchers to study online communication platforms and practices from two sides: culture as a technological artifact and technology as a cultural artifact.

Understanding culture as a technological artifact involves studying how online communication practices are shaped by the technologies and platforms that facilitate them. The ways that people use communication technologies are structured by the affordances and functionalities of that technology. To understand how technology shapes live streaming practices, I bring Brock's method together with the walkthrough method of interface analysis. The walkthrough method, developed as a "way of engaging with an app's interface to examine its technological mechanisms and embedded cultural references to understand how it guides users and shapes their experiences," requires researchers to slowly, carefully, and thoughtfully document the full experience of using an app (Light et al. 882). I expand this method to facilitate an analysis of the experience of live streaming from start to end. Bringing these two methods into conversation with one another allows me to perform a systematic interface analysis while being sensitive to how race, gender, and other aspects of identity inflect how an interface communicates with and is read by marginalized users. Examining technology as a cultural artifact means uncovering how ideologies and cultural meanings are encoded into the technologies we use. These meanings come from both creators and users of technology, and they shape how technologies are used within communities and cultures. I am guided here by Safiya Umoja Noble's method of reading Google search results for racial bias in the search engine's algorithm (17-24). As I walk through the process of streaming, I explicate the cultural meanings communicated by the interfaces and algorithms I encounter. With these analytic lenses, I examine how the technology of live streaming promotes an exclusionary culture while simultaneously being shaped by that culture.

Finally, and most importantly, I work from my position as a half-Black female streamer. As such, I take an autoethnographic approach and deploy the experiences and knowledge that I gained through streaming as valuable data. In a scholarly discourse that has yet to robustly include the voices of women of color, autoethnography allows me to speak back to discourses that may misrepresent or fail to represent Black women (McClaurin 65-7) and allows my "marginalized voice to speak for itself" (Boylon 414). I draw from my two years of experience operating a livestream for a weekly fighting game tournament in Central Texas, as well as my more sporadic but equally meaningful experiences streaming gaming

and crafting by myself. Through my autoethnographic reflections, I attend to the importance of user agency in CTDA.

Live Streaming Walkthrough

I organize my analysis in the form of a video game walkthrough. Described by Mia Consalvo as "detailed descriptions of where to go and what to do...to get through a game successfully," walkthroughs "ensure that players [do] not become needlessly stuck or miss fun parts of the gaming experience" (328). The following live streaming walkthrough aims to point to areas in which streamers like me can get "needlessly stuck" or miss out on fun, areas created by the interplay of technology and culture in live streaming. As discussed above, there exist several roadblocks that can prevent a streamer from contributing to the YouTube archive and being represented in the history of gaming and streaming culture: archiving options may be accidentally turned off, or streamers may forget to download their archived broadcasts before they are deleted from Twitch's server. In my walkthrough, I shine a light on a more complex obstacle: how the abuse of marginalized live streamers shapes who visibly participates in live streaming. I analyze my own experiences to uncover some ways that the technology and culture of live streaming discourage Black women from participating fully in live streaming in ways that will be preserved over time.

Step One: Assembling Hardware. My first stream began with having hardware pushed into my hands. After a few weeks of attending tournaments for the fighting game Super Smash Brothers for Wii U in my city, the tournament operator (TO) asked a friend and I to appear on the tournament stream as commentators. I knew very little about the game, but that didn't seem to matter. The TO reasoned, correctly, that having two young women on screen would draw in viewers, even if we had very little to say about the skills and strategies of tournament competitors. The TO handed us headsets with microphones and sat us down in front of a webcam; we took our time angling the camera to capture us at our most flattering angles. When I saw my face and upper body appear in a small rectangular frame at the bottom-left corner of the stream, knots formed in my stomach. I was presenting myself, my face, my body, my voice for consumption to anonymous viewers. Those nervous knots have yet to disappear; every time I open my live streaming application to check that my microphone and camera settings are correct, seeing myself through the synthetic eye of my webcam reminds me that my body is a main

draw for potential viewers. The webcam and microphone emphasize that people come to watch me, not my gameplay.

As Sky LaRell Anderson explains, the use of technology like webcams and microphones indicates that streaming is not just about watching videogame play but is also about watching people. Analyzing and commenting upon expressions, body comportment, modes of dress, tone and quality of voice, and gender and racial presentation are all part of the fun from a viewer's standpoint. Performative play is an embodied practice, and that embodiment makes meaningful interaction with viewers possible. I perform for viewers using my whole body, laughing at funny comments in chat, gasping during tense moments in a fighting game match, or raising my arms high when my favorite player wins a close game. My physical performance enhances communication between viewers and myself.

This interactivity comes at a cost, however, because bodies communicate more than just words and emotions. They also convey information about identity. Anderson notes that the importance of appearance and embodiment "bring to the forefront some of the identity politics and conflicts currently present in game culture." Women's bodies, for example, are simultaneously sexualized objects and objects of scorn; male viewers enjoy consuming women's bodies while attacking those same women for "cheating" their way to success by showcasing their physical appearance (Ruberg et al. 468). Even those who reject the use of a camera and opt to use only a microphone are not exempt from the problematic aspects of embodiment. One can easily and quickly respond to viewers using a microphone but sharing one's voice opens them up to what Kishonna L. Gray calls linguistic profiling, in which listeners judge a person's gender, race, and other identity markers just from their voice ("Intersecting Oppressions" 416).

Cameras and microphones capture the presence of streamers, allowing their bodies and performances to be broadcast and, crucially, preserved and archived. Seeing the faces and hearing the voices of women of color in archival materials can be instrumental in telling a richer version of video game history. However, once one's gendered and raced body is made available for viewers, it can easily become an object of sexualization, sexual harassment, and racist abuse. Thus, while the hardware of streaming can help enrich the live streaming archive, it also opens one up to responses that can make visibility and performance undesirable. Though cameras and microphones are ostensibly neutral, as we shall see, the problematics of the visibility they provide can drive marginalized streamers out of the community and out of the archive.

Step Two: Interfacing with Interfaces. After wrangling hardware, a streamer must familiarize herself with the software and web platforms that will facilitate her broadcasts. Streaming involves multiple video and audio inputs; even a basic gaming stream will have to balance gameplay footage and audio with the inputs from a camera and microphone. Free software like the barebones Open Broadcast Software (OBS) or the more robust Streamlabs allow streamers to handle these multiple inputs with relative ease and, with a bit more learning, make it possible to overlay graphics that further increase a stream's interactivity. These programs are intricately connected to Twitch; it is through Streamlabs that I press the button to begin my broadcast, monitor my view count during the stream, keep up with my chat, and even track how many followers I gain over time. Streamlabs, in particular, has become an influential force in determining what streams look and feel like; by offering free pop-up graphics sets that appear on-screen when a viewer follows, subscribes, or donates, the software encourages streamers to turn these viewer-driven events into public celebrations and moments for interaction.

Streamlabs' graphics affordances follow a precedent set by Twitch on its Creator Dashboard interface. The Creator Dashboard, an easy-to-access and navigate portal on Twitch's desktop interface, includes all the necessary tools for running a stream. It is here that streamers can title their broadcasts, set up automatic chat moderation, track their viewership statistics over time, and apply for affiliate and partner statuses that allow streamers to profit off their performances. The Dashboard also communicates what sort of priorities streamers should have through its "achievements." Like videogames that award players with achievement titles when they accomplish certain tasks, Twitch incentivizes streamers to aim for specific goals tied to viewer counts, follower and subscriber numbers, and chat activity. The achievements lay out the path to becoming a "successful" streamer by prioritizing attracting and retaining chatty viewers. These priorities are encoded into Twitch's visibility algorithm, which places streamers with large viewer and subscriber counts at the top of its pages. By providing free graphics and tools that turn viewer interaction and loyalty into spectacles, Streamlabs reinforces the idea that streamers should aim to increase their visibility by drawing in and catering to as many viewers as possible.

I have an ambivalent relationship with this imperative to seek visibility. On one hand, visibility on Twitch seems like an impossibility. I visit Twitch often, yet rarely do I see Black women promoted on the site's home page or search pages. The algorithms that determine who is promoted seem programmed to produce a

landscape structured by the hegemony of play. The screenshot of the Twitch homepage below (Figure 1) is a typical example of what I see: many white men, some men of color, and a few women thrown in for good measure. Black women are a constant and conspicuous absence here, as well as in the searches through archived live stream footage on YouTube. The YouTube search algorithm, like the Twitch recommendation algorithm, seems to reproduce the hegemony of play when representing the live streaming archive.

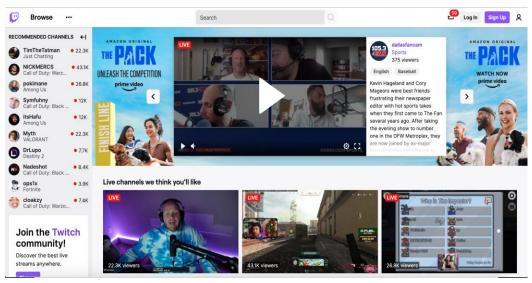


Figure 1. Screenshot of Twitch home page, accessed from an Incognito window on November 20, 2020

At the same time, the seeming invisibility of Black women on the platform renders our presence hypervisible when we do appear. When the tournament operator asked my friend and I to appear on stream, he did so knowing that our female faces would stand out among the dozens of competing *Super Smash Bros*. streams that night that had no women. Our presence made our stream hypervisible and attracted attention in a sea of otherwise similar broadcasts. Now, as I stream games that are more popular with female streamers, my blackness renders me hypervisible and draws attention. While fellow small streamers complain about remaining in the dreaded "zero viewer hell," my hypervisibility ensures that I always have a least a few anonymous viewers keeping me company as I play. My experiences bear out what Joshua Daniel Phillips and Rachel Alicia Griffin identify as the simultaneous invisibility and hypervisibility of Black women in media. We

are, paradoxically, often made invisible as agential subjects while being rendered hypervisible as sexualized or vilified objects (39-40). Though my hypervisibility means I never sit in "zero viewer hell," the ways in which I am visible mean visibility is, for me, both a blessing and a curse, as I explain below.

Step Three: Going Live. Once I have checked all my settings in Streamlabs, ensured my camera and microphone are working properly, and titled my broadcast on the Creator Dashboard, it is time to go live. I press the "start streaming" button on Streamlabs, wait for my computer to connect to the Twitch servers, and then begin my performance. Though I try to stay focused on gameplay, my eye drifts often to the view counter or the chat window, both of which are prominently featured in the Streamlabs interface. Though chat is empty, and my viewer counter reads "0," I must perform. A beaming smile in the stream thumbnail might be what draws in my first viewer, and once that first person arrives, it is my commentary and my personality that will keep them around. Performance is key, even when I am performing for no one.

There is a rush associated with gaining viewers. On my first day streaming at the *Smash Brothers* tournament, my friend and I were amazed to see our low viewer count grow in the minutes after we appeared on-screen. Now, years later, I still feel a nervous excitement when a viewer drops in; the feeling of connecting with someone, even if I know nothing about that person, is what drives me to go live time and time again. But gaining viewers also brings anxiety. Many viewers are "lurkers," silent watchers who say nothing in chat. Streamers often complain about lurkers because their silence contributes nothing to the broadcast. Keeping an eye on the chat window and responding to viewers is an expectation of any streamer, and I have had some interesting and friendly conversations with kind viewers in my time streaming. However, after a few uncomfortable experiences with chatty viewers, I have come to prefer lurkers.

On my first day on stream, my hair was insulted. I was called ugly and fat. Viewers questioned my intelligence because I could not keep up with the fast action of the fighting game that I had only just started to play. One person called me "ice cold" because I refused to act flirty. These are all small jabs that I laugh off now, but despite my best efforts to blow them off, they have stuck with me. They remind me to perform in specific, often invisible ways: I spend extra time before each broadcast to ensure my curly hair looks presentable; I smile more and respond to viewers in cutesy voices; I laugh at their bad jokes. Since making these changes, I receive fewer insults, but the nature of my chat has changed from attacks upon my

appearance to sexual comments. I have even been propositioned for sex work in my chat. When ignored, this particular viewer followed me into my Twitch private messages, which I did not know were open for communication by default until I saw him pop up there. I have not gone one stream without an undeserved insult or unwanted sexual comment being hurled my way. I always ignore them. It is exhausting emotional labor, and it remains invisible precisely because performing such labor would only draw more negative attention. My viewers should not see this labor, which means neither will someone who watches an archived stream. This kind of labor remains invisible in the archive, and thus inaccessible to historians who hope to understand streaming practices and culture.

Advancements in Twitch's algorithmic chat moderation have made it possible to filter out some of the abusive and harassing messages that viewers send. However, streamers who are particularly vulnerable to abuse must modify their "AutoMod" settings. The program's default settings set AutoMod to do "some filtering" of discriminatory language based on race, religion, and gender, but does not filter out sexual language, bullying, or profanity. Strengthening these settings to filter out objectionable chat messages more stringently is simple, but the defaults communicate a powerful community norm. Twitch assumes that its streamers will not experience, or perhaps are fine with experiencing, racist, sexist, and/or abusive language from their viewers. Such default settings make clear that women of color, and Black women specifically, are not the ideal or expected Twitch streamer.

Step Four: Turning Off. Eventually, a stream must end. I find myself exhausted around the two-hour mark, apologizing to my viewers that I could not stay on longer and promising to show up again soon. After I say my goodbyes and click the "stop streaming" button, I breathe a sigh of relief. My performance is over. No one is watching me. I can stop regulating my emotions, monitoring my facial expressions, and comporting my body so the camera captures me at my best angles. Though this performative labor is meant to be invisible to the viewer's eye and thus never shows up on camera, it is what I associate most with streaming. Yet, while I can stop performing, I am not exactly done. The Creator Dashboard is ready with a summary of my statistics, complete with charts tracking my viewer count and chat participation; these details also come to me in an email. Twitch's communications encourage me to strategize ways to improve my viewer participation and earn more achievements going forward.

It is also time to decide whether I will archive my stream. None of my solo broadcasts are archived. Each stream features some sort of uncomfortable

interaction with viewers that I would prefer never to be made permanent. I condemn those interactions, and my activity as a streamer, to ephemerality. As a result, someone looking at my Twitch channel might assume that I have never actually streamed. I am similarly absent in the archived streams of my city's Smash Brothers tournaments. Our earliest streams, those in which I participated on camera, were never archived because we did not know Twitch offered an archiving option. I eventually decided to move behind the camera and become part of the TO team, a choice made because I was tired of the work I put into looking my best, regulating my emotions, and keeping a cheerful countenance. It was not the insults or harassment that led me to go off-camera, but the desire to avoid the labor of handling hypervisibility. It was only after I moved off-camera that we opened a YouTube channel and began to upload each week's tournament broadcasts. Because of this, the archive of my city's fighting game community bears virtually no trace of my involvement. I was present every week for two years, running brackets and setting up our streaming equipment, but my behind-the-scenes work was never captured. The archive I helped to create from behind the camera presents a community in which I never feature. Although I have actively participated in gaming communities and live streaming culture, that participation is not visible in any archives, effectively erasing me from the histories of those communities and cultures.

Conclusion

Though the experiences and emotions recounted above are my own, they are not unique. If anything, they are mild; while I encountered a great deal of gendered abuse and sexual harassment, racism was not a major problem for me. As a half-Black woman, my light skin protected me from the kind of racist vitriol that other Black streamers regularly experience. Video game and live streaming cultures are structured by racism and sexism, and the technology of live streaming—from cameras to Twitch interfaces—enable and support the expression of those ideologies. Culture and technology work together to create communities in which Black women, as well as others who do not fit within the hegemony of play, are discouraged from full participation. Streamers who do not have the energy or emotional capacity to deal with abuse are pushed to the margins to hide from hypervisibility and the attention it brings. As a result, their presence is rarely recorded in the streams and audiovisual materials that will be used to write the

histories of their communities. Their absence in the footage that makes it into the archive has serious consequences for what can be said about the history of gaming and live streaming.

Knowing this, how should scholars and archivists take advantage of the potential of live streaming archives while recognizing the crucial limits and silences of those archives? One important step is making streaming and gaming communities safer for marginalized participants. This work is already being done; the organization Black Girl Gamers, for example, fosters a network of Black female streamers who support and encourage each other to persevere against the systemic racism and sexism of streaming and gaming cultures. Twitch, for its part, has created a Safety Advisory Council to advise on safety policies and help create new features to build a safer, more positive community for all platform users. Recently, the platform announced new moderation policies that ban unwanted comments about a streamer's appearance, other kinds of sexual communication, and the use of the Confederate flag on the platform. Changes like these demonstrate a commitment to making both the culture and technology of streaming safer for marginalized users.

Scholars and archivists must also work to compile archives that represent the diversity of gaming and live streaming communities. Working with groups such as Black Girl Gamers to include them in archiving efforts, for example, could be one important step. Scholars must also read archives against the grain to uncover presences where people of color, queer people, people with disabilities, and others appear to be absent. Creative archival and history-making practices are a hallmark of doing media history, and especially digital media history. As the power of live streaming as an archival practice becomes even clearer, those creative energies must be put to use to make sure that the archives created and the histories written do not reinforce and reproduce the hegemony of play but disrupt that reproduction to document the diversity of players and play practices in video game culture.

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