

Game Streamers' Practices on Twitch and Management of Well-Being

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Abstract

There has been a noticeable increase in coverage and academic research on the physical and psychological well-being of game streamers. Existing studies have identified challenges and possible negative effects to streamers' well-being, and they have also explored how streamers utilize the technological features of streaming platforms in their streaming practices. However, scant research has investigated the links between the use of platform features and the management of well-being issues. This study examined how streamers use technological features, the negative well-being issues of streamers, and their coping strategies for these issues. Based on a qualitative content analysis of 23 hours of video interviews with 23 different game streamers discussing well-being issues related to streaming, findings indicate that challenges to well-being arise from prioritizing different outcomes in their streaming practices, and it is game streamers' resilience and self-aware platform feature use that enables them to face these challenges.

Keywords: game streamers, well-being, Twitch, live streaming, gaming culture

Introduction

Video game live streamers' health and well-being challenges have seen greater media attention in recent years, through streamer discussions on personal issues such as burnout, depression, and anxiety (Alexander, 2018; Grayson, 2019), and news reports of streamers who have taken ill (McIntyre, 2019) or lost their lives (BBC News, 2020; D'Anastasio, 2017; Patterson, 2020). Gaming-related mental health organizations have thus begun supporting streamers as well (Boccamazzo, 2018). Twitch, a leading platform for game live streaming, has also published supplementary mental health tips and support information for streamers on their platform (Twitch Blog, 2019).

The low barrier of entry to streaming and the potential to monetize gameplay can attract individuals hoping to turn their passion or hobby into a career. Stories like that of Tyler "Ninja" Blevins, who was reportedly paid US\$1 million to stream a newly launched game (Panchadar, 2019) and has also streamed with popular entertainer Drake, further dangle the prospect of fame and fortune through simply playing games for fans. Streaming can thus be considered a form of aspirational labor, the creative cultural production of social media influencers that might promise social and economic capital, but whose actual reward systems are uneven (Duffy, 2016). Twitch is competitive, making it challenging to succeed as a streamer (Johnson, Carrigan, & Brock, 2019). Viewers tend to channel-surf until they find a stream they like, developing loyalties to very few channels (Nascimento et al., 2014). The platform exhibits heavy tail and long tail phenomena, where a very small number of creators account for much of the platform's popularity (Jia, Shen, Epema & Iosup, 2016), obscuring thousands of streamers struggling for recognition.

This struggle can entail a laborious lifestyle as streamers try to grow their presence on both the streaming platform and elsewhere in social media. Some struggles include streaming in excess of 35 hours a week, stress and exhaustion, and coming to terms with the precarity of streaming as a career (Johnson & Woodcock, 2019b). In addition to managing their content, streamers are also mindful of finding the right balance between meaningful individual interactions with their followers, developing and maintaining a stable audience base, and growing that base for the sake of performance metrics and income (Hamilton, Garretson, & Kerne, 2014; Wohn & Freeman, 2020). Streamers also face toxicity (Consalvo, 2017; Pellicone and Ahn, 2017), harassment (Hamilton et al., 2014; Ruberg, Cullen & Brewster, 2019; Ruvalcaba, Shulze, Kim, Berzenski & Otten, 2018) and emotional fatigue (Brotheridge & Grandey, 2002; Lee & Ok,

2012), arising from audience interaction.

While some well-being-related concerns like exhaustion and harassment have been briefly mentioned in Twitch-related studies (Törhönen, Hassan, Sjöblom & Hamari, 2019; Wohn & Freeman, 2020), existing studies have not directly explored how well-being issues are encountered, interpreted, and managed by Twitch streamers. Additionally, while some researchers (e.g., Johnson & Woodcock, 2019a; Sjöblom, Törhönen, Hamari & Macey, 2019) have explored the affordances of Twitch features and how they enhance the streaming experience, they have not explored whether using such features influences streamers' well-being. This paper seeks to identify well-being issues experienced by game streamers on Twitch, the issues' relation to Twitch streaming features, and how streamers employ different strategies to cope with well-being issues. This would provide a preliminary foundation for further empirical research to develop a better understanding of how well-being challenges affect streamers differently and inform intervention strategies and recommendations to help career streamers overcome well-being challenges.

Literature Review

Streamers' Well-Being Concerns

Many full-time Twitch streamers are self-employed, and poor regulation of their online-offline work cycle can lead to burnout. Individuals who view streaming as a job and source of income also tend to dedicate additional time beyond streaming to promote their channels on social media, adding to their workload (Törhönen et al., 2019). Relying on an audience that directly influences their income creates a form of external pressure, an obligation to stream regularly (Taylor, 2018). Some in the streaming community believe one should "Always Be Casting" to grow streams and maximize income. The norm to broadcast daily for long durations (over eight hours) has raised concerns about how sleep deprivation and exhaustion might affect streamers (Bonnar, Lee, Gradisar & Suh, 2019; Johnson et al., 2019; Woodcock & Johnson, 2019b). Being online and in character for long periods of time can also take an emotional toll (Woodcock & Johnson, 2019b).

Being in character requires streamers to craft a certain self-presentation, which previous research on young people's social media use has linked to elements of mental well-being. For example, a high level of false self-presentation, which might be influenced by perceived social norms that support inauthentic practices, has been associated with poorer mental health outcomes (Wright, White, & Obst, 2018). Conversely, presenting a positive image of oneself and authentic self-presentation has been linked with higher self-esteem

(Yang, Holden, & Carter, 2017). These findings are consonant with suggested relationships between emotional labor and the laborer's well-being.

Emotional labor requires the laborer to induce or suppress certain feelings to instead display the expression appropriate to their work, particularly if the work entails inducing certain feelings in others, such as when service/hospitality workers must make clients feel valuable and welcome (Hochschild, 2012). When the required emotion is happiness or passion in one's work, it might be easier for workers to try actually being happy or passionate than simply pretending; this trying through emotion regulation is emotional labor. Such deep acting, while problematic considering the commodification of one's emotions, has actually been associated with personal fulfillment; conversely, surface acting or faking one's emotions has been linked to emotional exhaustion and depersonalization of others (Brotheridge & Grandey, 2002; Lee & Ok, 2012). Streamers, whose emotional expressions are constantly visible and who might aim to elicit feelings of entertainment and camaraderie among their viewers, might perceive one or both types of emotional labor as necessary to success.

The requirements of emotional labor have already been observed in other social media influencers, who share with game live streamers a mythology that they are relatable, authentic people, making a living while having fun and doing something they love or are passionate about (Duffy & Hund, 2015; Duffy & Wissinger, 2017). Influencer studies have discussed how consistent self-presentation and self-branding entail considerable emotional labor, as influencers must reconcile their projections of authenticity and relatability with strategizing and selective content curation to attract followers and sponsors (e.g., Audrezet, de Kerviler & Moulard, 2020; Duguay, 2019; Hopkins, 2019). Streamers experience similar tensions between having sincere, meaningful interactions with their communities and growing these communities (Hamilton et al., 2014). Such growth is important as platform metrics such as view, subscriber, or follower counts are a simple way for the influencer and potential sponsors alike to measure success. While streamers recognize "intangible metrics" like community strength and fun (Pellicone & Ahn, 2017, p. 4864), they might still internalize numeric metrics (Johnson & Woodcock, 2019b) as a measure of their ability, performance, or value.

Toxic communication in the form of harassment, insults, and unwarranted criticism has been observed in many online gaming communities (Cote, 2017; Fox & Tang, 2017; Gray, 2012a, 2012b; Hilvert-Bruce & Neill, 2020), and streaming is no exception (Johnson,

2019; Todd & Melancon, 2019). Harassment, particularly gendered harassment, is a common occurrence on Twitch chat (London et al., 2019; Ruberg et al., 2019). Twitch provides streamers with some moderation control over their channel, and some streamers appoint moderators (Taylor, 2018) and use chat bots to help streamline some of the work of managing and interacting with the audience (Consalvo & Phelps, 2019). Moderators help by regulating chat, removing inappropriate messages, and banning persistent troublemakers, although some streamers prefer to handle their own channel moderation (Wohn, 2019). Streamers who fail to control harassment in their chats, however, might find themselves attracting more toxic audience members (London et al., 2019).

Streamers' Use of Platform Features

Through the affiliate and partner programs on Twitch, streamers can generate an income from stream subscriptions, donations, and advertisements. To qualify for these programs, streamers typically need to complete the "Path to Affiliate" and "Path to Partner" milestones based on accumulated streaming time, the number of unique days they have streamed, and their average number of viewers (Twitch Interactive, n.d.a). Along with access to the monetization tools, both partners and affiliates receive customization privileges (e.g., exclusive custom emoticons for subscribers of different tiers) to further distinguish their channels from others. Partners differ from affiliates in having priority access to Twitch's support team, additional technical privileges such as stream delays and transcoding, and longer storage for video-on-demand content (Twitch Interactive, n.d.b). Through these programs, Twitch incentivizes streaming and offers streamers a tangible reward system that might allow some individuals to turn streaming into a career (Sjöblom et al., 2019).

Johnson and Woodcock (2019a) outlined the different ways streamers may use monetization channels to interact with viewers, whether these channels are supported by Twitch or with an external payment platform. These researchers also described how Twitch itself evolved to incorporate monetization channels that streamers developed with out-of-platform tools. Besides subscriptions, donations, and ads, other income sources include sponsorships, competitions and targets that reward viewers for subscribing and donating, gambling-style systems, and mini-games. Practices developed around these monetization tools can become integral to a streamer's performance. Acknowledging subscriptions or donations, for example, can take up a significant amount of a streamer's time and attention. Rewards for viewers such as custom messages, triggered animations, and even actual gameplay with the streamer allow members of the audience to direct the content and

flow of a stream (Taylor, 2018).

Twitch also provides a data analytics dashboard to streamers, allowing them to dissect their audience and revenue data and evaluate their stream performance (Woodcock & Johnson, 2019a). The saturation of streamers on Twitch, however, makes it a competitive environment with no guarantee of success despite the time, mental, and physical commitments to streaming; only a small percentage of streamers can actually sustain streaming as a primary income source (Johnson et al., 2019). For streamers who have been successful, the grind to stream continuously to build and retain their audience takes a physical and emotional toll, resulting in burnout when they push past their personal limits (Pellicone & Ahn, 2017; Slotnik, 2017).

Chat is another key feature of a Twitch stream. It allows the audience to communicate with Twitch streamers and vice versa, providing streamers with a general idea of how their stream is being perceived, even if the sheer number of chatters turns the panel into a waterfall of text (Hamilton et al., 2014). Streamers use automated chat messages or bots that can streamline some of the work of community management (Consalvo & Phelps, 2019), such as by providing stream statistics, answering frequently asked questions (e.g., computer hardware specifications), and reinforcing the stream's house rules (e.g., to chat in English only). Chat can also be integrated with monetization through easy-to-type commands to donate to a streamer and through programmed interactive text mini-games (Johnson & Woodcock, 2019a).

However, toxicity is prevalent in Twitch chat, and the responsibility of moderating is often left in streamers' hands. Like seems to attract like as communities form around a host's personality, cultivating a stream atmosphere that reflects the streamer's attitude and values (Hamilton et al., 2014). While some streamers thrive and have built their Twitch community around toxic culture (Kisela, 2018), others might find it a challenge to deal with toxicity regardless of their attempts to show or promote positive attitudes. Female streamers, particularly, can find that the constant barrage of sexually or racially charged comments on Twitch chat takes a toll on their emotional well-being (Rosenblatt, 2019). In gaming culture in general, women bear an unequal burden when it comes to mitigating toxicity in their communities (Cote, 2017; Gray, 2012b), and this might be another potential source of stress for female streamers.

As discussed, a few studies have discussed streamers' struggles with well-being issues, and a small number of studies also recognized a link between specific features (e.g., chat) and well-being issues. However, no known studies have discussed coping

strategies and contributing factors for the management of well-being challenges streamers face. This study aims to provide observations and insights into the challenges to game streamers' well-being, their coping strategies and the role of Twitch features in handling well-being issues. We propose the following research questions:

RQ1: How do game streamers define and make sense of challenges to their well-being in relation to streaming practices?

RQ2: How do game streamers manage challenges to their well-being?

RQ3: How does the use of Twitch features contribute to the occurrences and management of negative well-being issues game streamers face?

Method

A qualitative content analysis of videos streamers uploaded to YouTube was conducted. These videos were the primary data source as they provided insight into streamers' well-being concerns in a context that referenced their natural streaming environment and allowed for analysis of both verbal and non-verbal cues (Rosenstein, 2002). YouTube videos were also selected over Twitch stream archives as YouTube facilitates keyword searches, and Twitch streamers also typically have a YouTube channel to cross-post stream highlights and recaps. The keywords "streaming" or "streamer" and "mental health" or "well-being" were put into YouTube's search engine to find relevant vlogs, clips, or interviews where streamers discussed well-being issues. Results were ordered by "most relevant," and third-party-produced news or commentary on streamers were excluded because researchers wished to access streamers' experiences in their own words, rather than others' interpretations or speculations regarding their well-being. Top results included videos from TRUgaming and StreamerSquare, two YouTube channels that produced videos on gaming and streaming practices; from HealthyGamerGG, a channel focused specifically on gamers' and streamers' psychological well-being; and a 15-minute personal video blog (vlog) by a streamer. The researchers then visited the three channels and selected additional videos for inclusion based on whether the title mentioned "mental health" or a more specific well-being issue (e.g., burnout, toxicity). The vlog by the streamer "James" was still included because the well-being topics and views he shared were similar to those of other streamers interviewed across the three channels.

In total, approximately 23 hours of interviews with 22 different streamers and the vlog entry were included in the analysis, for a total of 23 streamers (14 male, nine female) whose experiences are

discussed in this paper. Heath et al. (2010) have suggested that a sufficient sample for video data in a qualitative study depends on the context and questions being addressed by the video analysis. In this case, the search was terminated when researchers reached a saturation point in coding the well-being issues and challenges discussed by streamers in these videos. Of the streamers observed, 22 were still active streamers on Twitch as of September 2020. Their Twitch follower counts ranged from 5,600 to 3.7 million, with an average follower count of 550,000, and their average daily hours streamed in 2020, at this writing, ranged from three to 10 hours, with an average of 5.7 hours.

Knoblauch et al.'s (2014; Knoblauch & Tuma, 2011) ethnographic approach to video analysis was adapted, where each viewing was accompanied by note-taking in a time-stamped content log. Each log contained the chronological sequence of events in a rough transcription of the videos' visual and audio content. These logs were analyzed sequentially through semi-directed coding, focusing on streamers' thoughts and feelings regarding well-being and managing well-being in the course of their work and play. Each stretch of time a streamer was speaking was coded for possible well-being issues, platform features whose presence or usage might be linked to those issues, and possible coping strategies, especially those that involved platform feature use and other streaming practices. The researchers divided the videos and written logs for coding and analysis, then conferred regarding the interpretation of findings and synthesis of codes for larger themes.

This analysis was also informed by viewing live gameplay streams by nine highly watched (at least 2,500 viewers) streamers at various times of day, for one hour each. These live gameplay observations primarily served to provide insight into streamer jargon and actual streamer-audience interactions (Heath et al., 2010), providing a contextual reference for the well-being challenges they raised in the YouTube video data. Three of the nine (Sammie, Kadie, and Philip) were also in the recordings we analyzed. Although the interplay of live chat, streamer video, streamer speech, and streamed gameplay can produce complex interactions for analysis (Recktenwald, 2017), we focused on how streamers responded to viewer chat, subscription/donation notifications, and donation custom messages, as these were the primary platform features through which viewers might influence a streamer's mental or emotional state on screen. However, well-being was hardly a point of discussion in the live game streams. Thus, our analysis focused on the video data where streamers tackled well-being issues directly. As with the recorded interviews, we kept time-stamped content logs for subsequent analysis. These observations supplemented the data from the

interviews by helping to contextualize or explain events or interactions cited by interviewee streamers. Additionally, we attempted to remain aware of how our own experiences as gamers, stream viewers, and women might sensitize or inform our interpretations, and to keep the streamers' own words and experiences in focus. While the interviews were themselves livestreamed, the recordings remain publicly available at this writing, and the streamers used their real names/usernames, we have assigned the streamers pseudonyms for some privacy.

Analysis

Well-Being Challenges for Streamers

Issues raised by streamers included lack of sleep, stress, burnout, toxic social comparison and emotional drain.

Lack of Sleep

Streamers tend to broadcast for long hours to maximize their income and grow their channels. For some, this means sacrificing sleep. Elouise noted, "I let it completely consume my life. At that time I was working two jobs ... then I would come home and stream like six to eight hours, so it was like I had no sleep; I was working myself to death." Others, like Andros, streamed at odd hours of the night to take advantage of less competitive timeslots: "For four years, I streamed every single day, starting at midnight, and I would wake up at midnight and stream until 8 AM. ... I always felt groggy when I woke up; it felt weird going to sleep in the middle of the day. Even when you get enough sleep, it still feels bad." Eventually, Andros made some changes to his sleep schedule, and it made him feel much better. Similarly, Elouise, consciously decided to take a break from streaming for mental and physical health reasons: "I was like, I need to get away from this for a while; it's going to kill me to get away from it, but I know I'll feel better afterwards."

Stress

Several streamers shared that they experienced stress while maintaining their streams and career. This was sometimes exacerbated by their unwillingness to take breaks because they felt obligated to their audience. Redmond described it as "a weird sense of shame." Nuala elaborated that when people in her audience described how happy her stream made them, she felt that "I do have the best job ever ... I'm not allowed to be sad about it." Vicky shared similar sentiments: "you feel like you have to push past it and you're continuously putting off dealing with it—it's fine because I make people's days brighter, and I do have the dream job."

Even streamers who felt their audience would understand their need for a break were hesitant to take one, afraid to lose that audience

while away. "I've been terrified of taking a vacation When I come back, what will my sub count be? What will my view count be? Am I going to be irrelevant?" Jackson said. James, who had sustained an injury, also felt that nobody would blame him for taking a break, "But it doesn't matter, because while I wasn't streaming, somebody else was. Somebody would be taking my viewers from me, rather than me growing."

Burnout

The constant pressure to chase their goals, keep their streaming schedules, and appease their audiences led to burnout, ultimately forcing some streamers to take extended breaks. "It kind of just hit me out of nowhere, where one day I was just like, I just can't. I just don't even have the energy; like, I wake up, and I already have a headache, and ... I just don't want to," Nuala said. Vicky found herself struggling to fall asleep, with thoughts of streaming constantly cycling through her head.

In Redmond's case, burnout stemmed from constantly moving his own goalposts:

The idea I got caught in was, "Well, if I work more and become more successful, then I'll be able to have more time down the road." And the more success I got, the more I was like, 'Well, now I need to hold on to that. I can't take time off because then I'll lose all of this momentum that I've gathered.' ... and then of course I got burned out from working too damn much ... I had misperceived it in the first place".

Toxic Social Comparison

As suggested above by Jackson and James, social comparison also made it difficult for streamers to take breaks. Amara described comparing metrics as a "negative thought spiral that happens when you can see only the things that people are making available for you to see"; "it's so much easier to look at something you don't have and make yourself feel [bad] about it than to recognize the things that you do have." In fact, instead of taking breaks, some streamers felt that they needed to work even harder to catch up. "You can't grow on Twitch unless you're willing to work more than anyone else," James said. "This isn't a 9-to-5 job where, as long as you show up, you get paid the same amount. If you don't do the work, someone else will," further emphasizing the precariousness of streaming as a career.

Emotional Drain

Streamers also had to put up with emotionally draining toxicity in Twitch chat. "It's tiring to constantly defend yourself, constantly justify yourself against these comments that will essentially never stop," Kadie said. Vicky echoed similar sentiments: "We have to constantly

take in all of the feedback that [is] bad, and I think that can be really detrimental really quickly." Andros believed his viewers enjoyed being toxic precisely for his reactions: "When I'm angry, it seems like it's funny for everybody else except for me."

To protect themselves, streamers often put up a stoic front and avoid disclosing their true thoughts and feelings to their audience. Redmond described the paradox of having a community to engage with, yet still feeling a sense of loneliness. He had to "structure the words so that I'm understood properly, but I'm not being too vulnerable, and I'm not too revealing."

Relation between Feature Use and Well-Being

Numbers (i.e., platform metrics) and chat were the main Twitch features frequently mentioned by streamers.

Numbers and Stress

Many streamers shared that numbers were a frequent fixation and stressor. Elouise noted, "you know they say don't worry about the numbers, which is true, but you're always gonna kinda think about it, and the higher up you get with numbers and stuff, the more stress you get, or at least for me."

Some streamers blamed themselves for low numbers, suggesting they had internalized metrics as a measure of themselves. "When I open my dashboard, and I see my sub count, and I think about all my friends ... and how well they're doing and killing it, and here I am feeling like I'm doing something absolutely wrong ... it hits really hard because I think I'm the problem," Morley said. Similarly, Simon thought, "Okay, well, maybe it's (numbers) all falling off because I'm not as good as I was."

This unhealthy fixation with numbers also had negative impacts while streaming. For Tiya, "even if I'm doing better than I normally do, I still find that the numbers are affecting me, because then I'm like nervous, and I'm like ... I need to take advantage of this." Even Abe, who initially desired the numbers as instant feedback, felt affected. "If the stream is going well, then the numbers should be up, and if the stream isn't going well, then you'll notice that you're losing some of your viewers. And I wanted to know that, but it's so hard to pick it back up when you know that it's not going well."

Sometimes, viewers themselves notice these effects. Sebastian noted, "When you're looking at your actual numbers in real time—and let's say you got super excited about a game you thought was going to do well, and you realized maybe you're only getting 10% of what you would normally get watching your stream, right? It's like taking the gas out of you entirely.... And your mood, your entire

energy just changes 100%, and then your chat reacts to that, and at that point it's just better you end your stream."

Chat and Toxicity

Streamers had more varied opinions of Twitch chat. Some found it to be a source of toxicity and harassment and subsequently became stricter with chat moderation. Kadie, for example, noted that she had gotten "a lot of bad comments ... since the beginning," while Elouise used the terms "toxic community" and "keyboard warriors" to describe how her chat could become. Other streamers felt it was a matter of recognizing chat patterns that typically escalated into toxicity and nipping them in the bud or, alternatively, preparing to receive toxicity to a personally acceptable level. Philip acknowledged that his community tends to be viewed as toxic, but he countered, "I think communities do well at turning toxicity into, like, good banter," provided the comments don't escalate into personal attacks.

Coping Strategies

Describing their coping strategies, streamers expressed a common theme of self-regulation and understanding personal limits.

Recognizing Issues

For Andros, this meant recognizing that his irregular streaming hours were a problem and consciously switching to regular streaming and normal sleeping hours. Elouise also stressed the importance of knowing when to take a break before burnout happens, as pushing through might be more detrimental. "They (viewers) can tell if something's wrong; they can tell if you're not really feeling it. So, just take a break. That was at the point where I had to take a six-month break, and when I came back, sure, I didn't have those crazy numbers, but I felt a lot better."

Self-Regulation

The contrasting opinions on toxicity suggest that it might be highly subjective. Potential gender differences in both the perception of what constitutes toxicity on Twitch (Todd & Melancon, 2019) as well as in being a recipient of toxicity (Ruberg et al., 2019; Ruvalcaba et al., 2018) have also been highlighted in previous studies. Anton suggested that understanding personal limits for harassment might help streamers cope with audience interaction. Streamers needed to "be prepared to receive toxicity" and to understand their thresholds to avoid going into a negative mental spiral.

Hiding Features to Limit the Struggle

Multiple streamers shared that hiding viewer counts while broadcasting made them less anxious about their work. Tiya did so in order to "focus on my show, focus on having a good time." Similarly, Abe said, "I hide my numbers now, and it's good to check

it out after the stream just to see how you did, but during the stream, it's worthless to you. It shouldn't be something that you worry about, because you're just there trying to make content."

Banning

Some issues cannot be ignored by toggling visibility settings. Audience communication is integral to a Twitch stream, personal tolerance appears to determine a streamer's channel rules. Jayne and Kadie, who experienced considerable toxicity in the past, became less tolerant, setting strict chat rules and almost instantly banning perceived troublemakers. Anton and Philip, while agreeing it was difficult to differentiate between innocent questions/comments and genuine toxicity, dealt with challenging chat messages differently. Anton was quick to ban viewers if their comment appeared toxic but also quick to un-ban if the offender apologized through other communication channels. Philip preferred to ignore unwanted comments or try to channel them toward playful banter.

Third-Party Intervention

For streamers who have a larger audience, Twitch chat also tends to flow too quickly to follow (Hamilton et al., 2014; Ford et al., 2017). To deal with this effectively, such streamers can formally or informally employ moderation teams to help regulate chat and enforce stream rules, reducing responsibility so streamers can concentrate on performing (Consalvo & Phelps, 2019; Seering, Kraut & Dabbish, 2017). Kadie's moderators, for example, helped to enforce the low-tolerance policy in her stream chat.

Linking Streaming Practices and Coping with Negative Well-Being

Consistent with prior research (Gandolfi, 2018; Hamilton et al., 2014; Pellicone & Ahn, 2017; Smith, Obrist, & Wright, 2013), streamers in this study viewed streaming as a performance. As with live theater, performers on Twitch have access to instantaneous feedback from the audience. "When you're there, and you're live for anywhere from five to 10 hours straight, unedited, live with a chat room, interacting with people ... on the fly — unless you're like [Controversial Streamer] and you have a persona, you can't fake that," James said. Elouise noted that this feedback additionally comes in the form of the platform's metrics: "You know when you're not okay mentally; your numbers will suffer, and your content will suffer, because viewers can tell if you're really into it."

Sebastian also noted that crafting one's performance includes choosing the game upon which that performance is centered. Though streamers might select a popular game, "if it's not really a genre that you resonate with, if you're not organically having a good time, your audience is going to pick up on it. When you start doing things that way, you've lost your authenticity." He also compared

some streamers to typecast actors; they were so closely associated with certain games/genres that they would lose viewers when they streamed something else.

Similarly, streamers might feel compelled to reenact certain routines as new viewers encounter the streamer for the first time. These repetitions can take a toll on well-being. Philip often had to explain his accent and where he is from: "It's just a waste of energy now; it kinda sucks." Jayne, who lives with a chronic neurological condition, often had to address misconceptions about her behavior on camera. While she did feel rewarded by educating viewers about the condition, she also found it "really, really wearing"; "I feel like I'm constantly having my attention slapped back towards it even when I decide I need to pull away for a while."

Streamers recognized that they and their performance ultimately were the product their audiences consumed, leading to personal and moral conflict over the emotional labor required to be successful. "You and your business are the same thing to an extent," Redmond said. "That creates a weird set of standards and mis-valuation of self-worth—when your business isn't doing well, that means you're bad. Of course, it doesn't really mean that, but that's what's going on in your head."

Some streamers believed that emotional distance from their work was required for it to remain enjoyable. They also recognized that their emotional labor was on display and were aware that failure to regulate emotion onscreen affected their actual mood and performance. Though Simon here referred to staying competitive at gaming in general, he was aware of how an overly competitive attitude influenced his streaming:

I'm way too competitive, and I don't know how to dial it back. ... It's ruining my content. When I play a game that I don't care about, or when I play a game strictly for fun, my streams are way more fun to watch. I'm more laid-back; I'm more funny ... But if it bites me, and I get competitive about it, then everything makes me upset.

For the streamers, regulation seemed rooted in an awareness of one's threshold for the various threats to well-being, from physical or emotional exertion.

I think it's good to be cognizant of what level of engagement I can take and certain things that's healthy to me, versus, "This is too much, even though I'm getting a response out of it, mentally, it's destroying me, and now I need to take a month break." ... Everybody has to figure out where that line is for them. (Anton)

Similarly, James acknowledged criticism about the "Always Be

Casting" mentality but emphasized—perhaps brusquely—that it was up to the streamer to know their limits, with a comparison to professional basketball player LeBron James:

If LeBron was in an ad ... and said, you know, "While you were sleeping, I was shooting free throws. While you were watching TV, I was running laps," ... it would be true, because that's what it takes to be in the [National Basketball Association]. But, if that were me, ... and I tried to do what these NBA players do, I would wreck my body, because of my injury. And I recognize that. And LeBron doesn't have to say, "By the way, if you have lower back issues, maybe this isn't for you." ... We're adults; we're not morons.

Another area where streamers benefit from regulation is comparison with other gamers and streamers. Omar noted that he couldn't help comparing himself with others but was also aware of the need to manage his thoughts and emotions to avoid being too affected: "I still look at shitty comments. ... 'He's doing well, damn, I'm dead compared to them.' ... The difference is, that's not where it ends. The [negative] thought[s] will be there no matter what. ... There is just understanding them and learning how to manage them."

Discussion

The findings suggest that streamers have different goals for their streaming practices. Those goals in turn influence how different streamers run their streams, experience well-being challenges and utilize Twitch features. These differences also mean that streamers do not handle well-being-related issues in the same way, and the features of Twitch can be a double-edged sword, either helping or harming streamers depending on their use. We observed three different types of goals that streamers prioritized, changing the way they used platform features to adapt to arising challenges.

Prioritizing Social Interaction

The way some streamers described their perceived obligation to stream and their enjoyment of audience interaction suggests these streamers prioritize the emotional rewards and intrinsic motivation from social interaction. These findings are supported by Lucas et al.'s (2000) proposition that reward sensitivity to social situations is a fundamental feature of extraversion, as well as the empirical findings by Correa et al. (2010) suggesting that extraversion might be a positive predictor of social media use. However, even for extroverted streamers who thrive on sociability, Twitch chat can be highly unpredictable and might not provide the ideal forms of social interaction that they desire. Failure to identify and enforce their personal limits for unwelcome interaction presents the possibility that social interaction becomes emotionally draining rather than fulfilling.

To combat undesirable messages, streamers turn to Twitch-provided moderation tools, such as deleting messages and banning users. This level of enforcement, according to streamers, differs based on personal thresholds and the willingness to enforce rules in their streams. Some streamers voiced concern that being too restrictive streams would repel viewers, and they preferred to simply receive the toxicity, either embracing or ignoring it. This aligns with Gray's (2012a, 2012b) findings that some recipients of toxicity in online games tend to normalize this reception.

Other streamers, particularly those experienced toxicity before, preferred to keep their chat clean with strict enforcement. Previous studies investigating online toxicity also suggest that women and girls might be more sensitive towards and tend to be more likely targets of toxicity, particularly sexual harassment (Ruberg et al., 2019; Todd & Melancon, 2019). While these potential differences were not overt in our findings, female streamers did tend to elaborate more about their personal experiences with toxicity than male streamers, and they also had stricter enforcement policies for their respective stream chats. This complements prior work on the additional burden women in gaming have in mitigating unwanted attention (Cote, 2017; Gray, 2012b).

Prioritizing Performance

For other streamers, social interaction is less a priority and more a necessary by-product of performance. Having an "off day" might cause frustration for streamers who prioritize performance and fall below personal expectations—by failing to exhibit their gaming skills, to transition into streaming different types of games/content, or to break away from a stream/performance style they have come to be associated with, for example. Thus, for these performance streamers, emotional labor is an integral part of the job, and failure to maintain an emotional balance can cause stress and drain.

Emotional labor, while taxing, can also be paradoxically rewarding according to the depth of the labor (Brotheridge & Grandey, 2002). Surface acting or faking positivity might lead to the depersonalization of one's audience, and the dissonance between true and performed feelings might also result in a reduced sense of personal accomplishment. On the other hand, deep acting, or attempting to genuinely feel the required emotions, might promote more fulfillment as well as actual success with one's audience (Lee & Ok, 2012), albeit requiring more emotional labor. This might explain why many streamers wish to continue their streaming careers despite the greater psychological strain it might take to achieve fulfillment (Johnson & Woodcock, 2019b). Their emotional distance or closeness to their viewers might also influence their overall

contentment with their work. In such cases, attempting to establish more distance might only have a more negative impact on their well-being in terms of fulfillment.

Some streamers reported negative feelings despite favorable goal attainment; enjoying the interaction with their community, yet paradoxically feeling lonely despite these community bonds. For these streamers, Twitch chat coupled with viewer metrics are used as a form of real-time feedback, giving them insight into their performances. Hence, while interacting with their audiences, they tend to remain emotionally distant to avoid putting themselves in a vulnerable position. Despite this, being taunted by their audience can easily trigger stress, and the perception that they are doing badly makes streamers extra sensitive towards viewer metrics. This can result in what some streamers describe as a “negative spiral” where they become fixated on the numbers and struggle to recover their morale for the rest of their session. More experienced streamers shared that it was easier to focus on their own performance when view counts were hidden for the duration of their streams, only accessing them when they were no longer live.

Prioritizing Income

More established streamers with a larger following seemed to place greater emphasis on income over socialization and performance, keeping a regular and frequent streaming schedule to retain viewers. Comprehensive channel analytics on Twitch, in terms of audience and income metrics and trends, also allow streamers to easily track and manage their channel performance. However, this might also facilitate an unhealthy fixation on streaming metrics, arising when streamers’ own expectations are misaligned with their numbers, or when streamers compare themselves negatively with more successful peers. These observations are consistent with findings from previous studies exploring the negative impact of social comparison in other forms of social media (Gerson et al., 2016; Vogel et al., 2014).

The “Always Be Casting” mentality can also lead to physical fatigue from prolonged exertion and sleep deprivation, or burnout when streamers find themselves unable to keep up with their schedules. This mentality arises from the worry that viewers will stray from their channels if they are not consistently available and streaming, in turn reducing their earnings. However, some streamers also acknowledged that these concerns were largely unfounded, based on their experiences when they were forced to take breaks. Hilvert-Bruce et al. (2018) have found that viewers’ financial contributions to streamers were motivated by their desire for social interaction and a sense of community, suggesting that viewers will still support

channels where they feel a sense of belonging and emotional connection. While a temporary drop in viewers and income was to be expected, particularly with longer breaks, viewers would typically return when they resumed. Hence, to manage well-being issues that arise from practices to maximize income, streamers also need to recognize that their perceptions might not accurately reflect their viewers', and they must be more receptive to promoting their own well-being with necessary breaks and manageable broadcast times.

Limitations and Further Research

The search criteria used in this study resulted in videos of streamers who were consciously reflecting on well-being challenges and hence might not be generalizable to Twitch streamers as a whole. Streamers typically discussed more overt well-being challenges, and thus additional insight might be gleaned in future studies by exploring other challenges that might have become normalized in streaming culture. The current study is based on analysis of videos. Future research can utilize other empirical methods such as interviews to cover a larger and more diverse sample of streamers.

We note that the streamers did not discuss some common Twitch features, such viewer donations that pay for custom messages to appear on the streamers' screen and garner special attention. Philip, for example, received a message referring to masturbation during our observation but offered no visible reaction or direct acknowledgment. Given the prevailing culture of acknowledging viewers' support, such messages are likely another source of stress and tension between performance expectations and well-being. Future research can explore how such feature use interacts with well-being and streaming practice in more depth.

While the streamers in this study certainly suggested that personal resilience and self-determined limits are key to managing well-being challenges, broader factors that influence their coping strategies and feature use, as well as the longer-term effects of such practices, are unclear. For example, what influences a streamer to accept toxicity as a tradeoff for a growing, engaged audience, and what are the consequences of such acceptance on well-being? Similarly, what influences a streamer to engage in surface vs. deep emotional labor, and what are its effects? These are questions future studies can address.

Conclusion

Twitch as a streaming platform provides game streamers a space to perform, connect, interact, and influence their audiences. Game streaming practices enabled by the platform and its features are not inherently good nor bad for well-being. However, streamers face

different challenges based on their prioritization of streaming outcomes. Negative well-being challenges might only surface when streamers are unable to find the balance between these priorities (e.g., maximizing income) and a healthy lifestyle. An individual streamer's own resilience against the contributing factors to negative well-being suggests varying degrees of struggle. In this regard, the use of Twitch features appears to be a double-edged sword that can contribute to streamers' stressors but also help them cope with negative well-being issues.

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