Twitch and the Work of Play

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In this excerpt from the author's new book, *Watch Me Play: Twitch and the Rise of Game Live Streaming*, (Princeton University Press, 2018), she discusses some of the work game live streamers undertake to convert their private play into public entertainment. She details the layers involved in a typical broadcast and argues that this emerging form highlights the transformative nature of play. **Key words**: gaming; live streaming; transformative work; Twitch.

LATE ONE FEBRUARY NIGHT around 2:00 a.m., I found myself heading down a Florida interstate to visit a popular broadcaster at his home to see him do his live stream in person. We had previously spoken on Skype, and I had watched a bunch of his broadcasts, but I was interested in getting a peek into what it looked like from the other end of the screen. Despite being a night owl, I was already getting tired and could not quite imagine the prospect of rallying to go live to thousands of viewers at this time of day. But this was his usual broadcast slot, intentionally chosen to skim off North American audiences from other streamers who were wrapping up their shows and to snag Australian viewers just starting their evenings. Fortunately, I had the easy job; my plan was to sit off to the side and just watch. As I pulled into the driveway, I admit being surprised and impressed. I had not known quite what to expect, especially given the financial insecurity so many streamers endure. Yet this was a suburban middle-class home you would see in any number of cities around the country: two stories with a little lawn out front, surrounded by others that looked a lot like it. The street was quiet at this time of night, and the house was dark. As I rang the bell, I worried for a moment that I was either at the wrong place or about to wake people.

But he answered, saying he had just gotten up from a nap. The house was silent as the rest of his family—wife, baby, and brother who lived with them—still slept. The open-plan living room and kitchen were arranged much like you would expect of a young family—with baby things, TV/DVD setup, and mail along with assorted other stuff cluttering the counter. He offered me coffee, but

in a bit of grogginess put a cider pod in the machine by mistake. I did not want to be any hassle (always the tricky bit of research as you descend into someone's work or home) so said no problem while he gave me a quick tour of the downstairs. Perhaps sensing that I was taking it all in, he spoke about how amazed he was that they got to live in this house, how lucky he was to have the viewers he did, and how he never thought that this could be his life. Having previously spoken with him while he and his family were living with relatives, I knew there was immediacy to this feeling and his gratitude felt genuine.

We made our way upstairs to the room dedicated to his broadcasts, and he quickly fired off a tweet giving his followers a heads up that he would be live soon. His setup was not anything fancy, just a generic black desk with a couple of monitors, a few chairs, a lamp, assorted boxes, and gear here and there. His computer and monitors were already up and running as he sat down and began a ramp-up process. He started by looking at the Twitch front page, seeing viewer counts, assessing audiences, scanning the games and streamers that were on, and estimating when they were likely to sign off. Even before he began streaming, there were seven hundred people already on his channel hanging out in chat waiting for him. He decided to do a quick straw poll of the audience for them to pick what he should play. This involved using a third-party website to create a quick survey and pasting it multiple times to the chat. About twenty votes in, he settled on a game and sent out a "going live" message to Twitter. It was now approaching 3:30 a.m., and while the rest of the house was still asleep he began his broadcast. Although we had been speaking in fairly quiet tones up until that point, with the start of the show, the vibe shifted and I saw him transition into his entertaining persona.

Over the next five or so hours, I watched him play through a few different games and keep an audience of four thousand entertained. Most strikingly, I saw the high degree of behind-the-scenes work happening. In interviews with streamers, I had heard about all the things they juggle while live, but seeing it in person was impressive. One of his screens showed his game, while the second monitor displayed a large chat window, his broadcasting software (which included a graphical trigger system for automatic messages that would pop up in the broadcast), and a window showing details about who was subscribing, donating, and following. The channel's chat window was a central part of the production, and he was constantly keeping his eye on the conversation, issuing hellos, thanks, and responses. Viewers reminded him a few times about donations he had not acknowledged, and he apologized each time, promising to

catch up with the backlog. Amid all the humor and, sometimes, raunchy jokes, his heartfelt thanks to his viewers came through. At one point, perhaps because someone spotted me in the background, he waved me into the frame to say hi. I did so quickly and then tried to scoot my chair back to the side. I definitely did not have what it takes to stay on camera.

Eventually his brother popped his head into the room to check in about something. The rest of the house was waking up. He started wrapping up the broadcast. I noticed during the session that he had not run any ads and, only now at the end, showed a few. He took a look at who was currently streaming and picked a few fellow broadcasters to suggest that his viewers switch over to watch, instigating a friendly "raid." Once he turned off the broadcast, he showed me all the other tools in the background that he uses to monitor his productions. While he did not need to call on them directly during the session, he pointed out the Skype window where all his moderators were gathered to coordinate their handling chat. Finally, he tallied up the results of evening's session: over fifty new subscribers, over eight hundred new followers, and over five hundred dollars in donations.

We headed downstairs to say hello to his family, now all awake and starting their day. I had met his wife before so we hugged and chitchatted, but it was the first time I had seen his new baby. She was happy and reached out for her dad when she spotted him. He took her and bounced her around with morning hellos. The rest of his day would be a mix of helping with child care, errands, and all the prep and postproduction work that streamers are constantly doing. I said my good-byes, and as I pulled away from the quiet suburb to make my way back to the hotel for some sleep, I could not help but think about how in average homes around the world these quirky one-person studios were appearing and broadcasting out content to millions of viewers every day.

This article explores these individual live streamers who are transforming their private play into public entertainment. In particular, I focus on those aspiring to create a new professional identity in this space. Whether they are "variety" broadcasters who play many different games, or esports players sharing hours and hours of practice of a single game, streamers are not only developing conventions for game spectatorship as they broadcast but are also constructing a new form of work. While many variety streamers still hold day jobs, a number of them are pursuing full-time professional live streaming, often supported by family or partners. Esports competitors increasingly supplement tournament income and broaden their sponsorship opportunities via live streaming. Despite

working with differing kinds of games and genre conventions, both types of streamers are typically based in home studios (frequently located in their living room or bedroom) and navigate the labor of producing one's play for spectatorship. It is usually an economically precarious, if personally fulfilling, path.

Given that Twitch supports synchronous chat running alongside the video, broadcasters are typically engaging with their audiences—saying hello, answering questions, responding to feedback, and over the course of months or years, getting to know them and be known by them. As one longtime streamer put it to me, Twitch allows him to say to his audience, "Welcome to my channel. Now you're a part of the experience." This social and emotional labor extends beyond the bounds of the broadcast platform; having a successful channel also often requires attention to other forms of social media. Managing a presence on Facebook, Twitter, and even YouTube and gaming platforms like Steam can become an important part of building and maintaining an audience. Live streamers are not only content producers but brand and community managers too.

Aside from this "front-stage" labor, live streamers frequently find themselves having to skill up into agile one-person production studios. Whereas traditional media production involves a division of labor among skilled technical and creative professionals—from camera operators and audio experts to writers and producers—live streamers regularly take on all these roles themselves, especially when they start out. While broadcasting, they are not only producing all the creative content but also tend to be simultaneously managing all the technical components to make the production happen. Live streaming, particularly when undertaken with professional aspirations, becomes the work of play.

Layers of Production

As one can see from the brief description at the beginning of this article, game live streaming can quickly become a serious production. The level of attention, labor, resources, and creativity that streamers put into their practice to take a game and make a product out of it that extends well beyond its formal properties is stunning. Accomplished broadcasters make compelling performances and productions that capture viewers and keep them entertained for hours. In just a handful of years, we have seen the practice develop from the simple broadcast of play to full-fledged "shows" with a range of genre conventions. The current state of top-level variety productions uses a range of technologies and practices.



Figure 1. Ellohime broadcast with auto pop-up banner when the channel gets a new follower (dubbed a "Viking of Ellohime"), 2014.

These live stream productions can be broken down into a number of layers.

Set design

While the game itself makes up a portion of the viewer's screen, accomplished streamers often use complex "sets" that involve additional audio, graphical over-

lays, green screening, cameras, triggered events (graphic or audio notifications of new followers, for example), chat bots, custom chat emoticons specific to the channel, and a customized channel page (see figure 1). It is worth noting that many of these components are produced not just by the live streamers themselves but also third-party graphics designers or programmers who have themselves sought to find a professional place in this new media sphere. The set of any given live stream is often constructed through the labor of a number of people, at times distributed globally.

Performance

Successful live streamers do not just silently broadcast their game play. Instead, they tend to mix together a "think-aloud" method similar to usability testing where the user speaks aloud their thought processes as they interact with a system and makes external that which would normally only be "in their head." This is typically accompanied with humor, frustration, and suspense. Streamers talk about this as trying to be entertaining or engaging. They frequently use physical expressions and gestures, at times theatrically, accentuated, or held for effect, to punctuate their communication (see figure 2) Esports broadcasters stand as an exception to this general rule where, for them, the very act of showing virtuoso play is itself a performance. These streamers usually do not speak much but rather perform and build audiences through their expertise. It is an entirely different genre that offers a variant on performance, though it shares some elements with variety streams.

Critique and evaluation

While a portion of the commenting that live streamers do is rooted in their moment-to-moment actions, analysis is also an important component of the work of play. Reflecting on mechanics, design, game play, "feel," and other aspects of the game itself can form a powerful part of the value of a stream. Astute streamers not only provide viewers with an entertaining performance of play but act as expert evaluators of systems too, conveying to their audience an independent analysis of the game as object.

Sociality

Live streaming performance is deeply interwoven with audience and community engagement. Core to this is the ongoing chat that takes place alongside and within the visual broadcast of the game and streamer. Viewers of the channel can



talk not only to each other through text chat but to the streamer as well. Accomplished streamers become adept at following this online conversation, keeping an eye on the chat window, talking to and engaging with their viewers, and all the while playing the game. This interaction can range from welcoming newcomers to responding to questions or soliciting feedback. In many instances, the audi-



Figure 3. SuushiSam broadcast with audience weighing in on what choice the broadcaster should make, 2012.

ence becomes enlisted in the game play itself by giving input on choices within the game (see figure 3). These moments, especially in tense game scenarios, are particularly entertaining and regularly generate high audience engagement.

The social and community layers of a production routinely extend beyond the live streaming platform itself onto other social media sites such as Twitter and Facebook as well as other gaming platforms like Steam that allow streamers to set up groups for their audiences. Streamers can also send private messages through the Twitch platform to communicate with their channel subscribers.

Material and digital infrastructure

While it is easy to forget about infrastructures when talking about Internet platforms, it is crucial for understanding the complexity at work in live streaming. Beyond the technical components provided by Twitch (such as video codecs, storage, servers, and transmission nodes), at the individual streamer level, a range of material and digital components make productions possible. This includes computers, audiovisual hardware (including mixing boards), furniture, and lighting (see figure 4). At the software level, it involves everything from graphics and audiovisual-processing software to bot and notification and trigger systems to network functionality. Many people I interviewed talked about experimenting with and piecing together their systems. When looking at support communities for streamers (such as the Twitch subreddit), you will often find them analyzing audiovisual setups, preferred devices, and discussions of many behind-the-scenes details to facilitate quality broadcasts. The level of technicity—"particular kinds of attitudes, aptitudes, and skill, with technology" (Dovey and Kennedy 2006, 113)—involved in making more complex streams is key, and typically requires a tremendous amount of self-taught expertise and community-based learning.

Economic and commercial frameworks

The financial structures at work in accomplished live streams are also important to consider. Twitch offers select broadcasters (partners and affiliates) the opportunity to monetize streams in several ways, including channel subscriptions of which it gets a cut, revenue from ads and game sales, and money from the platform's internal "Bits" donation system. Beyond these formal mechanisms, many streamers use third-party donation systems, sponsorship deals, and Amazon affiliate links.

These various layers interact with and impact each other in meaningful ways. For example, in figure 5, while there is an economic framework being referenced (ads and subscriptions), the streamer also leverages a social as well as emotional valence with language of support, appreciation, and increasing chat functionality. Likewise, software infrastructures like bots and notification systems or set designs (using cameras or microphones) are intricately tied to



Figure 4. MANvsGame broadcasting room setup posted to Twitter, 2014.

producing particular forms of interaction and community engagement. Performative qualities are connected to wanting to create better content and communities, which for those monetizing their streams, draws and retains viewers. Live streaming is a rich illustration of the assemblage of play, whereby a variety of actors (human and nonhuman), infrastructures, institutions, and interrelations make play, performance, and work possible.

Producing a successful broadcast involves a great deal of cultivation. Bal-

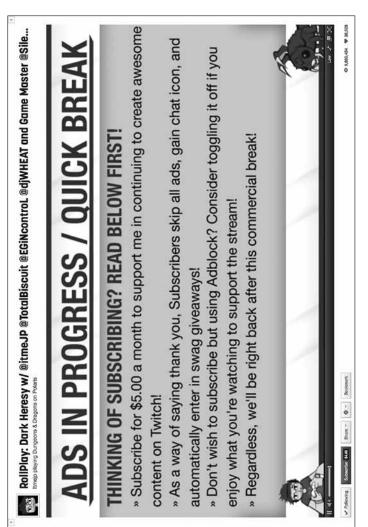


Figure 5. Itmejp channel interstitial, 2013.

ancing the audience and forms of engagement with the content, deploying a complex array of material and infrastructural components, and managing a variety of relationships online and offline (including economic ones) all become part of the work of streaming play. While it is easy to see a site like Twitch as just people gaming, looking closely at the components of successful broadcasts, with the creativity, labor, and systems that make them possible, pushes us to reckon with something much more. The game, as produced by the developer,

while a critical part of an overall production, is only one layer. Peering more closely, we can spot the often-invisible nodes: the infrastructure of hardware, video codecs, network protocols, and software layers. And we can begin to see how forms of interaction, performativity, and social engagement flow through as well as across it all, shaping these networked broadcasts. The empirical and analytic limits of a framework that centers the game artifact becomes apparent. Digital play is constituted through assemblage, as is the work of broadcasting it.

Play as Transformative Work

Over the course of several projects involving research about gamers (from massively multiplayer online games to professional gaming to live streaming), I have come to see that they frequently hold much more nuanced approaches to understanding the productive and cocreative nature of their play. Game scholar Hanna Wirman (2009, section 2.3) argues that there are at least five forms of player productivity, ranging from the expressive to the instrumental, and they should "be understood as a precondition for the game as a cultural text." Sal Humphreys (2005), in her work on massively multiplayer online games, contends that linear notions of authorship and subsequent understandings of copyright are disrupted when accounting for a notion of "productive players." She and fellow game researcher John Banks have examined the power of users to reconfigure institutions and markets by their activities. They assert that this is most interestingly seen in the "hybrid configurations and the entities that emerge, which are an uneasy and at times messy mix of the commercial and non-commercial, markets and nonmarkets, the proprietary and the nonproprietary" (Banks and Humphreys 2008, 406). These early game studies findings continue to express themselves in the work of live streaming producers as they try to situate—culturally, structurally, and legally—their creative engagements.

A large part of what broadcasters themselves are contending with is that, as one expressed it, "technology moves at a million miles an hour, and laws move like the opposite direction." One streamer I spoke with, thinking through the relationship between the game and his productions, said

What is it that keeps people watching my cast? Is it me as a person, or is it just that I'm playing the games that they want to see? I definitely think it's a mixture of both. I definitely have my core fan base of people who definitely watch my cast for me as a person, and those are the repeats. Those are the viewers who keep coming back,

but there's definitely a percentage of viewers every night who just sort of pop in because they see me playing a certain game. . . . I really do believe you can watch two different people broadcast the same game and have totally different experiences and totally different stories. (personal communication)

The sense that a person's unique engagement with the system—the *particular* circuit between them and a game—is central to broadcasting animates many of the conversations that I find myself in with live streamers. There is typically a strong sense of the performative nature of game play: that the game provides a field on and through which individual play unfolds.

The performative aspect and ownership stakes in this formulation were clearly articulated by one streamer I interviewed when he sought to find a good analogy to explain to me how he thought about his work. He likened what he does to a comedian or musician who, though using a club's venue, still creates something that is unique. Even though they are using the space, "the person who's up there performing, that's their act. That's theirs. So when I'm playing a game and I'm sitting there, I'm on stream, everything. And what is mine is anything, any content I create whenever I turn on my stream. That is my content. That is me. This is mine." (personal communication)

Another sought to point out the distinctiveness of this form of media, saying, "I totally get the legality of not sharing or streaming music and movies or books because those art forms, those mediums, they are very much set. When you watch a film, it is the same film beginning to end every time. Yeah, you can copyright that. For me, the act of watching somebody play a game, you are not experiencing a game." (personal communication) Instead, he argued, you are watching a specific entertainment product—one produced through the streamer's unique actions assembled for a broadcast.

The live streamers I spoke with consistently drew out how their productions are transformative; that their work produced new forms of expression, aesthetics, and cultural products. It should perhaps not be surprising, then, when they also say, as one did, "If I could take my live stream and turn it into a brand that people want, and I can take that brand and turn it into a business, then that would be amazing." Another framed how he approached monetization as connected with both his passion for the work and pragmatic concerns.

I want to make it clear that I make money so that I can stream. I don't stream to make money. . . . Nobody's just going live and play[ing] games and not think[ing] about providing for their kids or knowing what insurance you have, hospital bills,

having money to pay for the car when it breaks down. It's an aspect of this that is inevitable that you have to think about. It's all hand in hand. It goes along with the territory. I'm going to approach the business side of this with the same intensity that I'm going to approach the gaming side of this. Because to me, it's all synonymous. It's all the same thing. (personal communication)

While much of what has been written around user-generated content (UGC) and gaming has focused on its noncommercial side, over and over again, the live streamers I spoke with had woven together their creative and commercial aspirations. They also felt themselves bumping up against legal structures and understandings of game artifacts as narrowly construed intellectual properties. Yet their transformative work was always in the foreground of their stories.

Vernacular Law

This gap between how streamers experience their work and creative outputs, and the legal structures that in turn regulate them, is worth further consideration. Perhaps one of the most interesting threads within recent legal scholarship addresses an increasing turn toward the empirical along with the role of "vernacular law." Much in the same way that Internet and media scholar Jean Burgess's helpful concept of "vernacular creativity" (2006, 2007) captures the ways that "everyday creative practices" are important and can thrive outside high culture or commercialized paths, legal scholars have sought to understand how creative professionals actually think about their process and the meanings around ownership in their daily lives.

While there is a powerful myth surrounding the necessity of avidly protecting intellectual property to maintain "monetary incentives and wealth maximization," as legal scholar Jessica Silbey (2015, 6) documents through her interviews with various kinds of creators, intellectual property holds "diverse functions and sporadic manifestations in the lives and work of artists, scientists and their business partners and managers." Her story is one in which people who are commonly accorded intellectual property rights actually have a more nuanced understanding than the law typically does of its function and role in, and limits to, creative activity. Legal scholar Rebecca Tushnet's (2008) examination of the ability of specific creative communities to sensibly evaluate fair use claims also speaks to the thoughtfulness that producers bring to the issue. As she argues, "While copyright owners' interests must not be ignored, and wholesale, com-

mercial copying is extremely unlikely to constitute fair use, creative communities recognize these principles and are capable of respecting copyright's legitimate scope while preserving space for transformation" (104).

This is resonant with the flip-side claims that user-producers (such as live streamers) make when reflecting on their formal legal versus experiential standing. While often stating that they have no meaningful legal protections or rights, they simultaneously talk about a profound feeling that they have real stakes as creative producers—ones that should be acknowledged and formally recognized. The broadcasters I have spoken with over the years actually understand that the rhetoric around intellectual property does not line up with everyday practices and does a disservice to the complexities of cultural production. A much broader range of actors, and frequently in much messier ways than contemporary regulatory regimes acknowledge, produce innovation, cultural activity, and transformative works.

Legal scholars Burns Westen and David Bollier (2013) maintain that vernacular law—the rules and forms of moral legitimacy as well as the authority that can arise socially within everyday life—can offer a powerful "corrective to formal, organized legal systems" that may be deemed unjust, unresponsive, or dysfunctional. Communications scholar Olivia Conti (2013, n.p.) in exploring the emergence of UGC, suggests that "YouTube and other UGC platforms represent a fraught layer of mediation between institutional and vernacular."

These everyday conversations along with the lay theorizing around property claims and moral rights, or the desire for monetization by user-producers, can be found in comment threads, subreddits, and ethnographic fieldwork. They consistently point to a more complex understanding of cultural production than we typically find constituted in the law. While claims about fair use offer "the assertion of creator agency against unfair copyright law, vernacular discourse represents the assertion of a localised [sic] community within a world dominated by institutional discourses" (Conti 2013, n.p.). The arguments that live streamers regularly make about their productions represent a powerful form of vernacular interventions on legal frameworks—ones that at their heart, present a much more expansive rendering of creative action and production with commercial products. They highlight a deeply cocreative model of culture, echoing legal scholar Rosemary Coombs's (1998) understanding that the "use of commercial media to make meaning is often a constitutive and transformative activity, not merely a referential or descriptive one" (270).

The Work of Play

One of the aspects worth lingering on a bit more weaves together these considerations of commercial media systems with the nature of gaming itself. Scholars Daniel Kreiss, Megan Finn, and Fred Turner (2011) raise questions about how these new forms of production and engagement may have deeper corrosive effects, arguing

Peer production in particular may undermine our private autonomy by extending our professional lives into formerly private arenas. Thus digital collaboration may tend to privilege commercial actors. Just as peer production makes it easy for individuals to bring together their private and public selves, it also turns formerly private pleasures such as playing games into forms of labor and allows work to enter into intimate domains. (250)

They look to sociologist Max Weber's concerns about the effects of bureaucracy as having new salience for our modern participatory—yet commercialized—culture.

Though not game scholars, their concern is resonant with those who fear that the world of work, rationalization, or instrumentality threatens what is good about play. I am sympathetic. There are real ways in which digital gaming and live streaming is interwoven with fraught systems that may at times encroach on our agency and participation. We must certainly be mindful and critically reflective about the structures—from commercialization to legal regulations—in which our play and leisure are increasingly seated. This is something that I have tried to tackle throughout all my studies of gaming.

But at its extreme, this is an old argument in the study of play, going back to theorist Roger Caillois's 1961 work *Man*, *Play, and Games*, and it has profoundly negative effects both methodologically and theoretically. Caillois (2001) writes about the "contamination" of play by reality, obligation, and professionalism, asserting that "what used to be a pleasure becomes an obsession. What was an escape becomes an obligation, and what was a pastime is now a passion, compulsion, and course of anxiety. The principle of play has become corrupted. It is now necessary to take precautions against cheats and professional players, a unique product of the contagion of reality" (45). Scholar Tom Brock (2017), picking up Caillois's suspicion that professionalization corrupts pure play, looks at esports and maintains that the "perversion of agôn [competition] is a consequence of blurring work with play" (322). Within this model, game live streamers would

surely sit in the same penalty box that Caillois has tossed so many others.

I have now explored in several projects the instrumentality of particular kinds of play, the work that players do, and the modifications that they make to systems to foster even more rationalized play. And while I share concern and caution regarding the ways that our gaming might be colonized and our agency limited, I am also accountable to situating player practices within participants' own descriptions of the pleasure, creativity, social connection, aspirations, and authentic experience that so often accompanies the work of play. While one response to these data might be to theorize the respondents as dupes or unreflective about their own lives, or have the conceit that we as analysts are the only ones to see a bigger picture, I go another way.

I would actually turn *back* to Weber's (1949) approach to understanding human action. As he writes, "We are *cultural beings*, endowed with the capacity and the will to take a deliberate attitude towards the world and lend it *significance*" (81). One of the most profound components of Weber's method and theory is that he understood the power of context, standpoint, and meaning making by individuals and groups. He saw the complexity between those and structural issues. Though one might argue that today's gamers and live streamers are, like the Calvinists Weber so powerfully described, doomed to an iron cage of their own making, I am less convinced.

The work of play is often deeply transformative. It can be filled with difficult pleasures, enjoyable instrumentality, and complex negotiations between system, self, and others. It can modulate in complicated ways between freedom and constraint, self-direction and obligation to oneself or a community. And indeed when gamers do identify the pleasures of play as slipping away, feel that things have become too straining, or decide to convert back into hobbyists, it is typically tied to a range of factors all coming to a head, not a discrete designation based on a single property of idealized play.

Sociological studies of digital gaming highlight how simplistic, individualistic, and dichotomous in their handling of the world some of our older theories of play have been. If we leaned more on anthropologists of play like Linda Hughes (2006), who in the 1980s was already doing these valuable studies, or Phillips Stevens (1978), or scholars of serious leisure like Robert Stebbins (1982, 2004), who all offer richer accounts that avoid dichotomous formulations, we would discover interpretative frames that help us think about the complexity of meaning and experience in play and games. Though our games exist in specific contexts, and we are ourselves a product of particular moments, through our

individual and collective action, we also create authentic meaning, make social connections, and enact real transformations.

A move to interrogate simple work-play dichotomies through the lens of live streaming might have the side benefit of prompting a more meaningful consideration of our labor and leisure writ large. Looking at how people are creating experiences and content for their own fulfillment *and* the pleasure of others and their communities can provide insight into the complexities with which we navigate commercialized platforms. That we are doing this online, in networked environments, suggests we still have much to explore in our emerging media ecology.

EDITORS' NOTE: The end notes are original to the work from which this article was adapted.

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ENDNOTES

- 1. David Chamberlin's (2011) fascinating look at the interrelation between interfaces, meta-data, and power within media is worth mentioning.
 - 2. At the time of this writing, the biggest differences between partners and affiliates

are not around basic revenue-generating mechanisms (though Twitch does cover the payout fees for partners) but instead features such as channel emotes, video delay settings and storage, priority support from the company, and access to the "partnership team."

- 3. Conversations about ad blocking regularly take on a moral quality where streamers appeal to their audiences on the grounds of support or appreciation.
- 4. Anthony Pellicone and June Ahn (2017) analyzed streaming forum threads, and identified several similar components: assembling technology, building community, and adopting a game play attitude.
 - 5. For more on this issue, see Banks 2013.
- 6. I found a similar argument articulated when I researched massively multiplayer online spaces where players spoke of emergence in a virtual world (Taylor 2006a, 2006b) and among professional esports competitors, who regularly identified their game play as highly skilled, virtuoso performances on a digital playing field, akin to professional athletes (Taylor 2012). For more on the complexity of performance and the law, see Tushnet 2013.
- 7. This is akin to Espen Aarseth's (1997) notion of the ergodic and the unique properties of what he terms "cybertexts."
- 8. Her book is a powerful answer to Cohen's (2012, 66) call to pay attention to actual experience, such as when she observes, "The copyright system's account of cultural development is relatively incurious about users and their behavior. . . . But if creative practice arises out of the interactions between authors and cultural environments—if authors are users first—failure to explore the place of the user in copyright law is a critical omission."
 - 9. See Henricks 2015.