| Opinion | **Watching Us Play:** Postures and Platforms of Live Streaming |

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Introduction

"For a while," argues game designer Frank Lantz, "the idea that games were about social interaction got left beside" (2010). Lantz's concern is grounded in a theoretical history that sees play as an important social process, and reflects on a contemporary moment in popular gaming culture that often fails to interrogate that social quality. To be fair, in the current era of big budget, single-player game-epics, it's easy to lose sight of the many ways that playing remains a social activity.

In actuality, though, new technologies have allowed for even these "solo" game experiences to take on a new sort of social character. Through high-speed internet connections, transnational data-centers, and powerful hardware, players across the world are now able to broadcast their gameplay sessions—coupled with audio commentary and sometimes live video of the player—to a broad audience of friends, competitors, and strangers. In a sense, these technologies have opened up the possibility of whole new "verbs" to players. While before they could only *play,* now they can *entertain*, *teach*, *critique*, and *share*. Known as "live streaming" or simply "streaming," this practice raises new questions about the relationship between play, labor, subjectivity, and agency under late capitalism.

It is more and more common to hear about games being "made to do work." We should understand this broadly, counting not only games like *Fold.it*, which are designed specifically to crowdsource solutions to tough and important problems, but also artifacts and systems that generate value from "regular" play, such as the "cracked" version of *Watch Dogs*, which was modified to transform those who pirated the game into remote bitcoin miners (Honorof 2014). This also, then, includes systems which take "non-productive" play and turn it into something that generates value: systems like live streaming, where "streamers" broadcast out their play sessions to a live audience.

Streaming is a wide and varied practice, but some basic categorizations can be made. In their article "Live-Streaming Changes the (Video) Game," Smith, Obrist, and Wright outline three types of game streaming: e-sports (where viewers watch to see skilled competition and ESPN-style play analysis); speedrunning (in which "speedrunners" demonstrate surprising ways to complete games with remarkable quickness); and "Let's Play" (which can be informative, critical, or humorous playthroughs of a game) (2013: 132-133). While each of these has a sort of pre-streaming history, either through the exchange or posting of gameplay videos, or through the airing of play through more traditional broadcast channels, streaming represents a sea change in how players can share and collaborate, adding new sorts of social interactivity to an experience that was, for so long, solitary.

The recent emergence of live streaming makes it both a challenging and fruitful object of study. There is a limited pool of information available to support theoretical inquiry: partly because so little quantitative data has been collected by academic researchers thus far, and partly because the major live streaming services restrict access to internal figures. On the other hand, live streaming's novelty also grants it special status as a practice still in formation, making it especially useful in analyzing how late capitalism identifies and appropriates fresh cultural activity—doing so in this case through the development of an infrastructure that supports and encourages voluntary self-surveillance. And I've been part of that voluntary self-surveillance. Over the last year and a half, I've spent a great deal of time streaming games on Twitch, a live-streaming service which recently surpassed Facebook, Amazon, Pandora, Tumblr, Hulu, and Valve for peak internet traffic, becoming the fourth highest ranked site in the category (Maiberg 2014), a statistic that came just a month prior to the reported rumors of a Google buyout (Spangler 2014).

But alongside this growth and the potential buyout, there is something resistive in live streaming. Power structures and systems of broadcasting that have lasted decades face change as thousands of new voices gain access to platforms which grant them a broad audience that just five years ago would have been completely out of reach.

These new voices offer an alternative to corporate messaging and industry publications, sidestepping many (though not all) of the obstacles interested parties must vault before being able to take part in the broad conversation around games. Further, new communities grow around these streamers which sometimes offer an alternative to consumption-oriented "gamer culture," which work to bring attention to social and political concerns, and which highlight the work of independent and underrepresented developers, organizations, and groups. The culture of live streaming is hardly irreproachable, but in an industry that is notorious for homogenous hiring practices and poor gender and racial representation, the diversity among streamers is heartening. Given my experiences on Twitch.tv, coupled with results from preliminary research, I have very little interest in writing polemically, in calling for the end of live streaming, or in reducing it so that it fits into a neat, rhetorical package. It is an enjoyable, communal, and often transformative experience.

Yet these qualities do not prevent live streaming from also being exploitative. As Mark Andrejevic observes, "creative activity and exploitation coexist and interpenetrate one another within the context of the emerging online economy" (2008: 25). With live streaming, play is now just one more node of socialized labor, in which labor "is no longer restricted to the factory floor but encompasses all of the social processes" (Read 2003: 117). A game may be designed by a team of developers and distributed by a publisher, but now streamers—the majority of whom make little or no income from broadcasting—are its marketers, whose streams draw attention to a new product; they are its testers, whose recorded play experiences lead to future improvements on the product; and they are content generators for Twitch, YouTube and other broadcast services, where they draw viewers to advertisers (and perform the key work of keeping users in these media ecosystems). In fact, some live streamers—even those successful enough to be "partners" on a streaming service—have felt it necessary to turn to crowd funding campaigns to fund their endeavors (Myers 2014).

What makes all of this especially troubling is that this sort of exploitation often goes unnoticed because the activity's status as labor is itself unrecognized. There is a great dearth of academic work on live streaming—and the articles which do exist take up largely administrative positions and concerns. Smith, Obrist, and Wright provide a useful classificatory framework for future research in "Live Streaming Changes the (Video) Game," but offer little analysis or evaluation of the cultural or economic realities of streaming—and in fact suggest that broadcasters should use live streaming as a test bed for new, interactive advertisements that take viewer behavior into account. Elsewhere, in Kaytoue et al.'s "Watch Me Playing, I Am a Professional," the authors examine the distribution of stream "views," noting that the "top 10% streamers concentrate 95% of all views, showing that the audience attention is grabbed by a

very small set of streamers" (2012: 1183). In a frustrating turn, the authors then suggest that one possible explanation for this result is a "scarcity of good streams/streamers"—which is an argument grounded in a very specific understanding of "good" that only works to re-establish that same power concentration. They additionally suggest a method by which Twitch.tv could identify other potentially popular streams to feature on the front page, which would only compound the problem by including more of the same sort of content. If streaming is going to be "democratizing"—as many authors claim it already is—it will not be by featuring streams that are predicted to be popular. Critical research in the field of live streaming will become increasingly important as new streaming systems are put into place which control user activity to make it more cleanly fit corporate interest.

A key strategy of control has to do with the management of what I'm calling the "streaming posture." The sort of streaming I described earlier as "enjoyable, communal, and transformative" could be considered as being in an "active streaming posture." Active streamers voluntarily choose to broadcast their play, exerting the effort to set up and operate the hardware and software necessary to capture and stream out video. In the active posture, streamers are able to develop a public identity connected to play style, on-air personality, comedic repertoire, their relationship with teammates or co-streamers, or even a style of critique. Active streamers can simultaneously build communities through engagement with viewers, other players, and other streamers, creating networks of support, safety, and creativity. Though an active streamer may have additional affiliations to sponsors (or even directly to an employer, as game companies increasingly perform their own "official" live streams), an active streamer is always building their own identity and following, as they can build a back catalog of previous broadcasts for new viewers to peruse. There is a lot to be said for the value of "active" streaming—much more than I can address given my limited space here.

The alternative to this is the "passive streaming posture." The passive streamer simply plays their game session as normal while a live broadcast is streamed out. Passive streamers do not go out of their way to set up additional equipment or software, instead relying on hardware and software that is pre-built into whatever gaming platform they are using. These streamers are limited in their ability to build any sort of personal reputation and cannot attract communities around their play. These categories are strategic, arranged on a continuum with many services existing somewhere in between. But close analysis still allows for what are certainly "passive" services to be identified.

One major passive streaming service is OnLive, a "cloud gaming" service, which states on its website that it aims to provide "graphics-rich interactive applications available across connected devices" (2014). By utilizing powerful computers at distributed data-centers, OnLive is able to stream games to devices that would otherwise be unable to run them. In layman's terms, OnLive's computers run the resource-intensive game, then broadcast a high quality video stream of the game to a player, who inputs commands to be sent back to OnLive's computer, which then interprets and executes the input. However, the video that is sent to the game's player is also made available for anyone browsing the free OnLive "Arena" service to watch as well. This means that OnLive players do not even choose at the moment of play time to begin a broadcast: it simply happens automatically. Further, OnLive players cannot commentate over their gameplay sessions, though they can save "brag clips," ten second long videos of gameplay which can be uploaded to YouTube or Facebook, though these too feature no player voice. An OnLive player is therefore always a passive posture live streamer, their game sessions constantly beaming out to whoever tunes in (Smith, Obrist, and Wright 2013: 134).

If OnLive was the only example of a "passive posture" streaming service, I would be less concerned. But the recent integration of Twitch.tv into the Sony PlayStation 4 (PS4) console represents a move towards the passive posture that will likely become a model of future streaming solutions. Like OnLive, Twitch.tv on the PS4 requires minimal set-up and activation. Players can stream live from their PS4s without making any further hardware or software purchases—the game controller even has a "Share" button,

dedicated to starting a live broadcast (Shuman 2013). Sony's development team overcame the significant hurdles that previously prevented PlayStation users from producing stream content, allowing each PS4 owner to become a new node on the network of distributed labor. Second, like the OnLive Arena, the Twitch.tv app on the PS4 can only browse streams originating from other PlayStation systems (DiPietro 2013). While part of the benefit of watching live streams has historically been the chance to encounter new, independent games, on the PS4's Twitch.tv app spectators can only watch streams of products available for purchase in the PlayStation store. Finally, Sony has allowed game publishers the power to prevent some gameplay segments from appearing on stream (Shuman 2013). This offers publishers additional control over the public perception of their products, allowing them to block the streaming and recording of a game's big twist… or of a segment that is notoriously glitchy.

When the PS4 launched, streamers were unable to "archive" their broadcasts. This both insulated Sony from the mass distribution of problematic streams (a number of which did occur), and kept streamers from building a back catalog of content with which they could develop a streaming identity, community, and brand. But in March, Sony promised to add archiving in an upcoming software update (McCarthy 2014). This is a key illustration: as streaming grows, streamers, broadcasters, and platform-holders will find themselves negotiating aspects of the active and passive streaming postures. It is important to develop a critical body of work on streaming now, while such work can best help to inform and support the live streamers who bring this practice to life.

This struggle over live streaming is one that is endemic of a larger conflict throughout the culture of play. While there has always been a relationship between the two, digital play has become increasingly connected to commercial interests. Some game developers have capitalized on the social network boom, requiring players to work as marketers in order to progress in the game. Platform holders seek to re-situate play into other commercial frameworks, corralling social activity into promotional activity. Marketplaces aim to gamify play itself, rewarding players with a sort of digital scrip. All the while, techniques of "gamification" are deployed across daily life, from work to school to the commute. Each of these topics deserves our full attention.

I wrote above that live streaming can be resistive, and I extend this claim to much of contemporary play. Researchers like Nick Dyer-Witherford, Greig de Peuter, Ian Bogost, Alexander Galloway, and McKenzie Wark have been writing about and arguing for variations on a sort of "counter gaming"; play which emerges from oppressed, exploited, and underrepresented peoples, and which narratively, esthetically, politically, and mechanically represents a radical politics. Live streaming can be one more space for this sort of play to occur and spread, and in some cases already is, as streamers publicize the works of marginalized game creators, operate marathons to raise awareness and funding for charitable and political projects, and utilize broadcast platforms to air panels on topics like racism and capitalism.

But the systems we play in are limited, not only in ludic terms, but also in economic, technological and cultural ones. A recent example brings this sharply into relief: Over the past few months, there has been a lot of discussion about why "gamers" are upset about Facebook's recent acquisition of virtual reality (VR) company Oculus Rift (Hern 2013). The "Rift" is today's take on the virtual reality promises of the 1980s and 1990s, a headset that players wear to delve into first person experiences. After raising US$2.4 Million on Kickstarter, Oculus Rift developed and distributed prototype units and received rave reviews. Then, in this past March, Facebook acquired the VR company for US$2 Billion, leading to outrage, debate, and discussion on social media sites.

As some of Oculus Rift's Kickstarter backers have said, the negative response reflects a fear that Facebook will de-emphasize the company's focus on gaming. But it strikes me that there is something else here. Underlying this acquisition is the enclosure of opportunity.

First, early Oculus Rift projects carry a sort of DIY esthetic and ethic, operating in a space that seemed outside of the established marketplaces of gaming. With the Facebook acquisition, backers and fans felt the fences of enclosure. With Facebook's acquisition, a wild west frontier became tied to one of the largest networks of voluntary surveillance in the world. Suddenly, a world of possibilities felt limited: Whose concerns would Facebook represent? Would the experimental games seen on the Rift thus far be given the same attention that future games with social hooks would? What would the infrastructure and technology be built to support? Would VR just be one more place that Facebook could turn user activity into actionable data?

Second, some of the disdain was sent towards Kickstarter itself—and for similar reasons. Kickstarter revealed to backers a potential that had previously been closed off to them. In allowing a distributed group to collaborate financially, Kickstarter gave these backers the *feeling* of investing in an early, long-shot business. Of course, this isn't really investment: legislation in the US prevents individuals outside of certain income brackets (or without roles in investment firms) from purchasing equity in companies like Oculus. Instead, Kickstarter simply offered up backers as powerless, risk-free financiers, all while making it clear that there was no *technological* barrier stopping people from pooling their money in a way that makes them, as a group, viable investors.

Taken apart, these two scenarios may have caused some amount of frustration, but together there was an uproar. Though they may not have issued the complaint in these exact terms, the backers and fans of Oculus Rift had whole modes of action—whole *verbs*—closed off to them.

Likewise, recent developments in digital connectivity have brought to light opportunities and restrictions that would have otherwise remained in the dark. Streamers have begun to enjoy new types of creative and collaborative play. But this play happens under techniques and technologies of control and surveillance, which orient users towards social connectivity, track and record player activity (both in games and out), and, building on top of a growing collection of stored data, open up new modes of corporate action, all while mediating and directing user action. These techniques transform leisure activity into ludic labor, often without the explicit approval of players. Thus, no matter how enjoyable our play is, we have to question it. We have to determine what verbs are available to whom, to identify what pressures these systems place on us. We have to ask how are our actions—how is our play—pushed, pulled, restricted, encouraged, and transformed. And to whose benefit?

Acknowledgements

References
Andrejevic, Mark. 2008. Watching Television Without Pity: The Productivity of Online Fans. *Television & New Media* 9(1): 24-46.

DiPietro, Matthew. 2013. Sony Announces Initial Results of PS4 Share Integration on Twitch. *The Official Twitch Blog*. December 10.

Hern, Alex. 2014. Facebook's Oculus deal is Kickstarter's first billion-dollar exit. *The Guardian*, March 26. http://www.theguardian.com/technology/2014/mar/26/facebook-oculus-deal-kickstarter-first-billion-dollar-exit

Honorof, Marshall. 2014. Watch Dogs Torrent Comes with Bitcoin Malware. *Yahoo News*, May 27. https://news.yahoo.com/watch-dogs-torrent-comes-bitcoin-164658294.html

Kaytoue, Mehdi, Arlei Silva, Loic Cerf, Wagner Meira, Jr., and Chedy Raissi. 2012. Watch Me Playing, I Am a Professional: A First Study on Video Game Live Streaming. *Proceedings of the 21st International Conference Companion on World Wide Web*, 1181-1188. Lyon: Universite De Lyon.

Lantz, Frank. 2010. Interview by Robert Ashley. *A Life Well Wasted*. "Big Ideas" Podcast.

Maiberg, Emmanuel. 2014. Twitch ranked 4th in peak internet traffic, ahead of Valve, Facebook, Hulu. *Gamespot*, February 9. http://www.gamespot.com/articles/twitch-ranked-4th-in-peak-internet-traffic-ahead-of-valve-facebook-hulu/1100-6417621/

McCarthy, Scott. 2014. New PS4 update to add SHARE enhancements and HDCP Off. *PlayStation Blog,* March 19. http://blog.eu.playstation.com/2014/03/19/new-ps4-update-add-share-enhancements-hdcp/

Myers, Maddy. 2014. Hyper Mode: Help the Rich Get Richer by Streaming Games on Twitch. *Paste*, May 30. http://www.pastemagazine.com/articles/2014/05/hyper-mode-help-the-rich-get-richer-by-streaming-g.html

OnLive. 2014. OnLive. http://www.onlive.com/

Read, Jason. 2003. *The Micro-politics of Capital: Marx and the Prehistory of the Present*. Albany: State University of New York.

Shuman, Sid. 2013. PS4: The Ultimate FAQ – North America. *PS4: The Ultimate FAQ – North America*. Sony, October 30. http://blog.us.playstation.com/2013/10/30/ps4-the-ultimate-faq-north-america/

Spangler, Todd. 2014. YouTube to Acquire Videogame-Streaming Service Twitch for $1 Billion: Sources. *Variety*, May 18. http://variety.com/2014/digital/news/youtube-to-acquire-videogame-streaming-service-twitch-for-1-billion-sources-1201185204/

Smith, Thomas, Mariana Obrist, and Peter Wright. 2013. Live-streaming Changes the (video) Game. *Proceedings of the 11th European Conference on Interactive TV and Video,* 131-38. Milan: Politecnico Di Milano.