Illuminating the Spectre: Challenging the Assumed Power of the Controller-Holder

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Abstract

As video game streaming increases in popularity, the number of viewers spectating these streams has also increased. However, even while streaming seeks to develop more methods to include viewer participation, spectators are often viewed as passive or in the "backseat." In this paper I focus on findings from the development and play of a software overlay that allows spectators to control what parts of the screen are visible to them. I argue that the labor of spectating not only generates valuable knowledge, but can be encouraged and highlighted without turning spectators into players.

Keywords

video games; spectatorship; audience labor; compassionate design; overlay; live streaming; spectres; onlookers

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Introduction

I grew up playing single-player games with my sister. They were single-player in that only one person could wield the controller. But we did not play games like they were single-player: we would pass the controller to each other periodically, like passing a baton in a relay race, working together (and occasionally not) to finish the game. When one of us was hands-free, that person floated behind the other like a ghost, frantically pointing out items the other had missed, brainstorming aloud strategies to beat a boss, or "backseat gaming." You could say that one of us "spectacted" while the other "played," but this paradigm of player-spectator does not satisfyingly describe our style of play. And it is even less applicable to streaming platforms, where community engagement and audience interaction have become integral.

Many of the words used to describe those spectating came from theater and sports, including "audience," "viewer," and "spectator." These words often evoke a paradigm of an active party that performs while a passive audience ingests "vicarious" experiences (Sutton-Smith, 1997). However, media and game studies have dismantled the messy configuration of player-spectres as "active-passive" parties. The act of meaning-making, as illuminated by works like that of Matthias Esbjörnsson et al. (2006), shows that spectators "put considerable effort into trying to understand what they see" (p. 3). The act of watching and digesting what is seen is active labor. At times, spectators may also "demonstrate a level of interest and experiential engagement with the game that, while mediated through the primary player, exceeds that of the bystander or observer," such as giving tips and pointing out solutions—activities often considered "backseat gaming" (Newman, 2002, p. 409). But spectators do not always engage as such. The work of Hendrick Spilker, Kristine Ask, and Martin Hansen (2018) on spectators switching between different modes of engagement demonstrates both the range of spectator behavior and "switching" as labor. Nick Taylor (2016) describes the relations between more passive or more active orientations to be "shifting, co-constitutive, and contingent" (p. 295).

In light of live streaming becoming a greater global phenomenon, scholarship of spectatorship and audiences has grown: Max Sjöblom and Juho Hamari (2016) have examined the motivations and pleasures of watching; Jamie Woodcock and Mark R. Johnson (2019) have investigated the affective labor of live streaming and connecting with audiences; and T. L. Taylor (2018) has examined the development of live streaming platforms and their networked audiences, highlighting the precarious labor behind it. Altogether, previous research on spectatorship in arcades (Lin & Sun, 2011), online streams (Taylor, 2018), and e-sports (Cheung & Huang, 2011; Taylor, 2016) solidify the critical "vital and agential role" (Taylor, 2016, p. 3) spectators have

always played. They are a fundamental "part of a circuit of production through their engagement" and their labor (Taylor, 2018, pp. 45–46).

If spectators are fundamental, why is their labor considered "backseat"? While spectators can share labor with players, the controller-holding party often assumes all the power in the relationship. Spectators are expected to just watch, or at best, be part of mass "crowdspeak" (Ford et al., 2017). Particularly in casual or domestic contexts, if the other party tries to direct play, they are considered annoying: they have overstepped their place in the "backseat" and are a disturbance. James Newman (2002) affords them the title "co-pilot" or "secondary-player" but the lesser degree of importance attributed to these parties can be problematic (para. 13). Often, these roles are filled based on societal constructs and contexts of power, including who owns the console, who owns the space, and gender. We cannot assume that the spectator chiefly chooses to be spectator because they "like the idea of games but find them too hard" (Newman, 2002, para. 13). Sufficient research has shown that gender often figures largely into whether one identifies and whether others will recognize one as a gamer (Yee, 2008). Additionally, Mahli-Ann Butt's (2016) work on the "girlfriend mode" has shown that many women in a heterosexual relationship choose to lose or not play games to avoid upsetting their partner.

But it does not have to be this way. Virtually-mediated spectatorship can afford power dynamics to be less socially constructed. Take the case of the Niobe Labs event in *Destiny 2* (Bungie, 2017). Niobe Labs was a mixed puzzle and combat event with an extremely high difficulty level that very few players (aside from professional *Destiny 2* content-creators) were capable of tackling. Streamers worked together with their viewers to solve the puzzles and complete the event. The subreddit r/raidsecrets (2019) was a massive puzzle-solving effort. Organized posts documented current knowledge, attempts, and solutions. Individual threads focussed on theory-crafting, digging into possible interpretations of puzzles, and likely solutions were upvoted for visibility. Streamers then responded to highly-voted ideas and tried them in the game. A mass amount of labor on both spectators' and players' parts contributed to the completion of the event 81 hours after its release. This active labor is clearly recognized and valued by the community—spectators and players alike—and does not fit into the binary power dynamic assumed by the "backseat-driver" paradigm.

That being said, how can we encourage a shared-power dynamic in more contexts? How do we design to acknowledge the value of spectators? And how do we do that in casual *and* virtual environments? As digitally-mediated spectating blooms into a greater global phenomenon, it is more important than ever to turn critical attention to how platforms and digital infrastructures co-create networked audiences and shape power dynamics. Drawing on theories of platform politics (Gillepsie, 2018) and scripts (Akrich, 1992), Kristine Ask, Hendrik

Storstein Spilker, and Martin Hansen (2019) show how Twitch as a platform scripts users and how users script Twitch. Similar to how live audience engagement at e-sports events can be constrained by the mediation of institutions (Taylor, 2016), the engagement of spectators can be afforded and constrained by mediating actors.

Questions and Goals

The biggest question I posed was: what happens to the way we play when we foreground spectators? Can mere recognition of these bodies and their "once invisible work" (Jenkins, 2006, p. 135) disrupt the assumed inherent privileges of the "player"? I decided to build an artifact that would shift attention and power to these non-controller-holding parties to test this, specifically designing to call attention to the labor of spectating.

Defining the Spectre

To call more attention to their labor, I call them "spectres": non-controller-holding parties that are not recognized by the formal system of the game. Their existence and observation cannot affect the rules or mechanics of the game. They are invisible actors, like ghosts, and often, they are invisible to players too. But they *do* exist and are more than disembodied eyes or voices calling out from the ether.

I believe this title liberates them by drawing attention to the paradox both spectators and spectres are entangled in; i.e., the paradox that while rendered invisible by the game, players and other spectres are acutely aware of their existence. Additionally, the term harkens to an experience-altering power that is inherent. I use this messier term to free spectres from the backseat.

To design for the spectre, I wanted to specifically define them by their affordances:

- Spectres can spectate play without having to engage with the formal system of the game;
- Spectres can speak to or otherwise engage with the player and environment;
- Spectres can leave or join at any time.

I consider spectating as the act of watching without formal engagement in the circuitry of the game. Watching does not input controls, nor alter the rules of the game. However, while I mainly focus on visual engagement in this project, I do not mean to say that audial or other means of engagement do not consist in spectating or spectral labor. And while spectral labor has the potential to greatly transform play, it does not always *have* to. Transformative spectral labor spans a large range of possible play and effect. In designing for spectres, I sought to keep these affordances in mind while hoping to encourage and recognize spectral labor.

The Artifact

Dubbed "Watch of the Spectre," my project intervenes by embodying spectral sight. I developed a software overlay that darkens the screen except for a few circular "spotlights" controlled by spectres (see Figure 1). As the overlay is an independent desktop application, it can only be overlaid on PC games with a windowed mode.

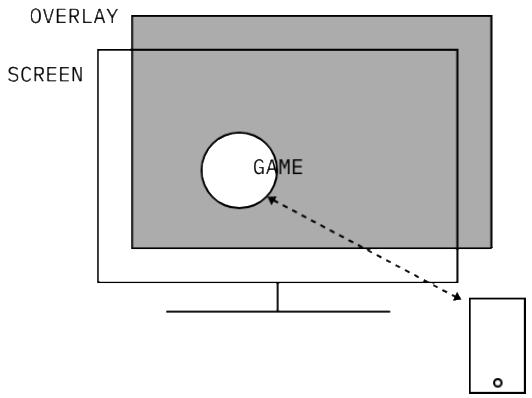

Figure 1. Diagram of artifact infrastructure.

Spectres go to a web application (spectre.nextie.us) to control the location of one such "spotlight" by clicking and dragging – similar to how a trackpad is used (see Figure 2).

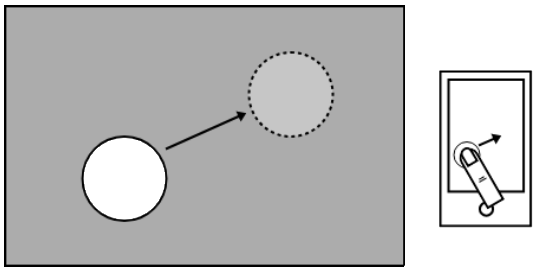

Figure 2. Diagram of user interaction.

Much like flashlights in a dark room, sight is captured by illumination. This captures attention and emulates the act of pointing out what is seen.

Additionally, I built in a feature for users to control how dark the overlay makes the base screen and how big and "bright" spotlights are. This conceptually captures ways to think about the value in the labor of seeing. Spectres can be seen as:

- Necessary: the screen is almost too dark to play without the sight of others;
- Beneficial: the screen is dim yet playable, but enhanced by the sight of others;
- Useless: the screen has no alterations.

By building in these options (see Figure 3), I hoped that people would play with their own paradigms of spectres. Later in playtesting, and at users' request, I developed sliders (see Figure 4) for more fine grain control of different settings, such as the darkness of the screen and the size of spectres' circles.

Figure 3. Example of darkness modes.

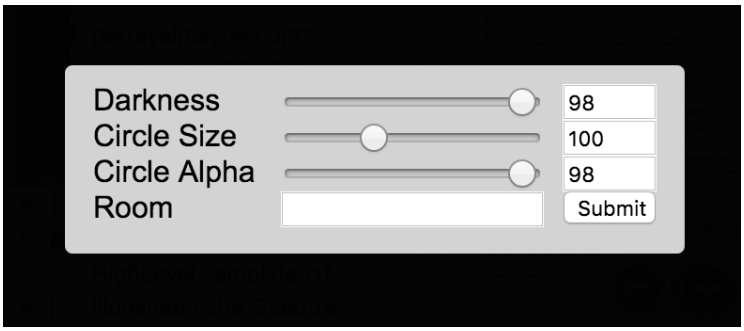

Figure 4. Interface for configurable overlay settings.

I chose to build an overlay that only modifies the screen's affordances, so the concept could be tested with different genres of games. I invite readers to watch a clip of the overlay in action to better understand its functionality (see Tang, 2019).

Methods

I playtested the overlay with four games: *Overwatch* (Blizzard Entertainment, 2016;see Figure 5), a fast-paced first-person shooter; *Stick Fight: The Game* (Landfall West, 2017), a chaotic 2D fighting game with ragdoll physics; *Grim Fandango Remastered* (Double Fine Productions, 2015), a point-and-click puzzle game; and *osu!* (ppy, 2007), a rhythm game. Playtests were conducted in multiple sessions of four to fifteen co-located participants. Not all participants used the overlay. I either observed playtests or joined in as a spectre (this occurred when players became frustrated because spectres were not using the overlay).

Illuminations at Play

Certain games lent themselves to being more enjoyable with the overlay, and each produced different dynamics. At its core, the overlay highlighted the intrinsic value of knowledge generated by spectres and the possibility of artifact interventions to encourage power-sharing.

Figure 5. Screenshot of a playtest with *Overwatch*.

A through-thread in all of the playtests was that many spectres were heavily invested in aiding the player. One of my favorite quotes is from a player who said: "someone's just reading my mind a little." Spectres not only tried to cooperate with the player but were also anticipating the player's actions so well that they felt synchronized. Work done by spectres to make the game playable through the "Swiss cheese filter" (Grayson, 2019) includes anticipating the player's next action, anticipating potential threats, communicating something to focus on or try out, and illuminating user interface (UI) elements. A lot of this labor has always been done, but it has now become integrated into play.

Spectre sociality and collaboration was also captured in that spectres could coordinate to spread out the labor of making sense of the game. Spectres talked amongst each other to make sure information was complete. One spectre would ask another to check the player's health while being occupied with tracking an adversary. Another would stick to illuminating the crosshairs. Spectres who were not participating with the overlay also interacted with those who were, sometimes pointing out elements to light up, filling in information that someone had missed, or swapping in when someone was tired. This mirrors both the "co-laboring in spectatorship" described by Cheung and Huang (2011, para. 45), where spectators work together to make spectating an enjoyable experience, and the coordinated labor done by spectres in the effort to solve Niobe Labs.

Moreover, spectres could use the overlay to guide and teach the player. In the playtest with *Stick Fight* (see Figure 6), the player had never played the game before. One of the spectres was familiar with the game and had even memorized some of the maps. The spectre used the overlay to communicate important obstacles on the map, such as spikes and lava. Weapons also fall from the sky in *Stick Fight*. The spectre tried to show this to the player by spotlighting falling weapons. Through the overlay, the spectre was able to guide play and communicate strategies to the player.

Figure 6. Screenshot of a playtest with *Stick Fight*.

The importance of spectral knowledge was heavily apparent in the playtest with *osu!*. This game requires a lot of map knowledge to hit circles that appear on the screen to the beat of songs. When spectres failed to anticipate where the next circle would appear, the ability of the player to play diminished greatly. Players and spectres discussed strategies extensively to optimize play with *osu!*. On harder maps, spectres with more knowledge would join in to help. While the overlay added a perception obstacle for the player, it also allowed skill and knowledge differences between spectres and players to shine.

Spectres came up with meta-strategies to best help the player. For one session of *Overwatch*, three of the spectres lined up their spotlights horizontally around the crosshairs to help the player aim. Another spectre transitioned between checking different UI elements, such as player health and game progress, to help keep the player informed about the state of the game.

Nevertheless, spectres did not always play nice. After discovering an optimal way to illuminate the screen, spectres intentionally stopped organizing themselves optimally for *Overwatch*. One spectre enjoyed continually flashing their spotlight on and off, creating a strobe effect. While the overlay encouraged spectres to cooperate, it did not impede

spectres from pursuing their own interests. The power shift was recognized by players. During the playtest with *Overwatch* (see Figure 7), the player jokingly said: "I will win as long as you guys don't sabotage me." During *osu!*, the player implored rebelling spectres to help.

Figure 7. Some players and spectres in the first session of *Overwatch*.[1]

It is important to note that the overlay does not modify games to be truly cooperative. Spectres are not in "player two" positions, where the second player either aids or impedes gameplay. At the same time, they are not players since they cannot engage with the formal system of the game. Nothing a spectre does through the overlay alone will win the game. Instead, this overlay affords not only power to spectres, but also the freedom to creatively use that power. Thus, they are still afforded the ability to disrupt play, just as one could without the overlay, such as by standing in the way of the player's view.

Additionally, spectres did not necessarily act as one mass or swarm. In the case of the strobe-flashing spectre, other spectres also asked them to stop, and only after several minutes did the strobing spectre relent. Spectres did not have to cooperate with each other. Since the overlay afforded individual power, the effect of each individual's intentions was amplified. In large sessions, spectre behavior varied wildly from lawful to chaotic (see Figure 8) simultaneously. Spectre behavior would shift towards chaotic or useless actions, especially when playing became too easy for the player. But once "too many" spectres tipped towards chaotic, in an organic balancing act, spectres would then start to behave more cooperatively with the player or with each other. Spectres individually adapted their play around one another's intentions and together formed a larger network of spectral play. This spectre-spectre

[1] Photo used with the permission of all pictured.

network of individual efforts is what makes labor, like that in Niobe Labs, interesting and more enjoyable.

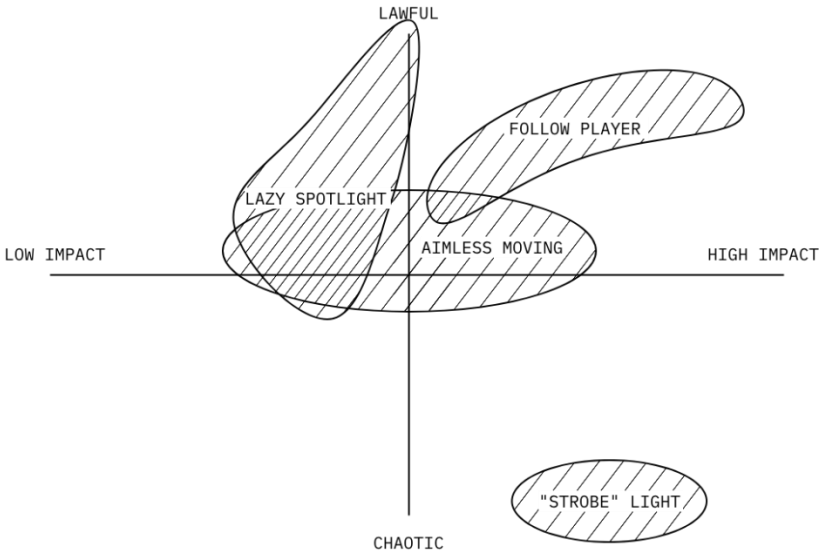

Figure 8. Diagram of a few overlay-mediated interactions and an approximation of their range of impact and intentionality.

Even though players willingly add an arbitrary obstacle with the overlay, players refused to turn down the base darkness of the overlay. Even when play became overwhelmingly difficult, players argued that it would be "pointless if [they] could still see what was going on." Each time I suggested settings that would emulate a beneficial view of spectres over that which was strictly necessary, I was met with resistance by players. Players chose to make spectres necessary to their play. They decided that it would be more fun to have active engagement and investment. Players opted to share power.

This leads to what I believe is the most important aspect of the overlay: it provides a framework for players to invite spectre cooperation, knowledge, and intervention. Spectres have always done the labor of anticipation, knowledge generation, and spectating. By building in a place for spectres on-screen, we welcome the "backseat gaming" into play. By putting it on display, we can see the value of this labor, and so can players. We explicitly summon spectres into the assemblage. The overlay illuminates the potential of what player-spectre and spectre-spectre networks can spawn. In addition, it demonstrates that we can design affordances to encourage these networks to strengthen.

Viral Fun

Following the *Overwatch* playtest, the player u/HintBoyRight shared a clip (2codE, 2019) from the stream of the playtest to r/Overwatch. The post (see Figure 9) got 28.9k upvotes as of May 13, 2019 (u/Hintboyright, 2019), was x-posted (cross-posted) to r/osugame and

other subreddits, hit r/all for a short time on April 3, 2019, and resulted in a *Kotaku* article on April 4 (Grayson, 2019). The clip hit 86.7k views.

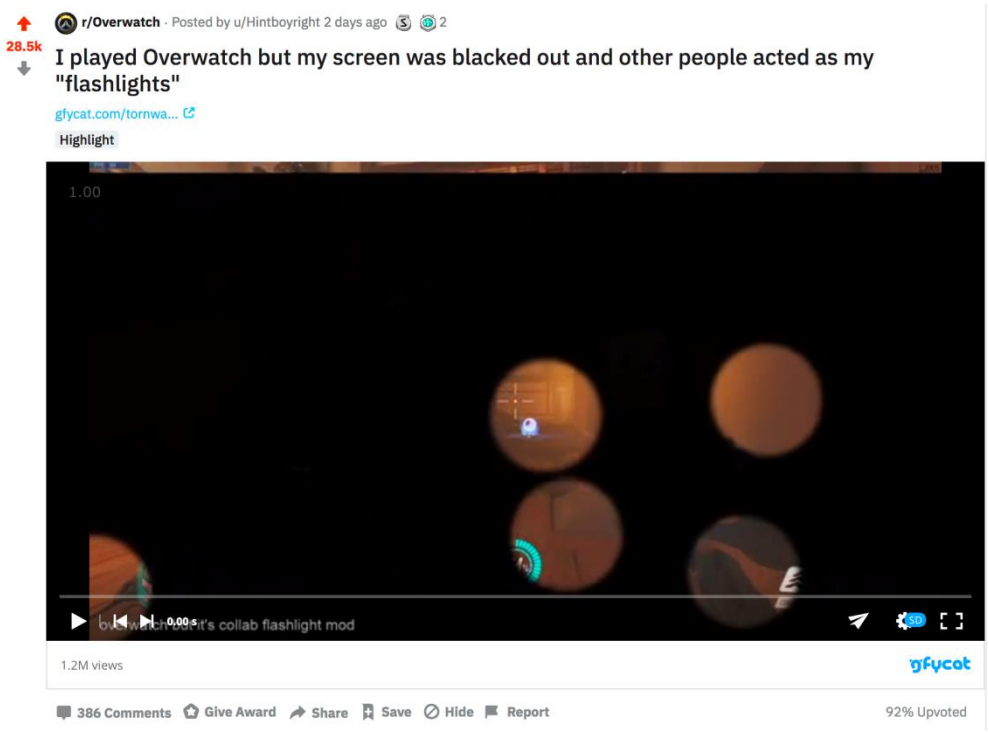

Figure 9. The Reddit post that went viral.

The resulting hype was very exciting, but also revealed that something about this framework resonates with the larger gaming community. While I set out to challenge the assumed inherent privilege and power of the player, I also managed to make something fun. Many posts on the thread suggested other interesting ways to use the overlay in streams or encourage engagement.

Several posts commented not only on the play of the player, but also on the play of spectres. Discussions emerged on the optimal way to light the screen, such as having a "lazy" flashlight sitting at the crosshairs constantly.[2] At the same time, conversations parallel to the ones I had in my playtests also returned that such optimal configurations would not be fun. Spectres wanted to be active, alert, and important, just as players wanted spectres to be.

Conclusion

Power and labor relations can be reconfigured through the structures that mediate and frame play. What I have built is a Ouija board for

[2] While this might sound contradictory, the optimal play discussed was to simply not move the flashlight from the crosshairs. However, some players argued that doing so would be "lazy" and not fun. Overall, their discussion nicely illustrated that optimal play is not always in service of fun.

spectres: an artifact where spectres can visually communicate with others by highlighting parts of the peripheral. While I believe my playtests have illuminated important ways that framing can impact on the circuitry of play, I see many more creative avenues to pursue. What if competitive games were played with the overlay, but all competitors' visions were controlled by one audience? What if spectres' circles were controlled via eye tracking? What if spectres and players were not allowed to talk to each other? Even just playing games of other genres with the overlay could reveal interesting findings. I released the project code and download to the public for others to experiment with. While my artifact was built for co-located play, I was pleasantly surprised to find that streamers picked up my artifact to play with their audiences on Twitch (experiences I unfortunately did not have a chance to touch on in this piece). There are so many creative interventions beyond my overlay that can be built to playfully dismantle assumed power and strengthen player-spectre networks. What other simple modifications can be done to welcome spectres into the greater body of play? To recognize their seat at the table?

At the same time, Twitch and other live streaming platforms are already building and mediating spectral engagement. The synchronous chat window, for example, is just one conception of how spectre labor can be woven into the platform mediated experience. In addition, other parties (e.g., Moobot, 2008; Warp World, 2016) are developing their own interventions for digitally mediated spectre participation. Some of these parties are individuals, some are communities, and some are even corporations, with motivations ranging from wanting to toy with the medium, to dissatisfaction with platform tools, to wanting to boost "engagement" metrics, to wanting to turn a profit. It is time we think seriously about the technologies that mediate, co-create, and enforce power dynamics and player-spectre networks, especially since these actors are already hard at work. There is much potential for powerful, playful interventions in networked live streams. Yet, there is also potential to simply, naïvely, reinforce assumed power relations. Or worse, so-called neutral network mechanics are abused, and no one takes responsibility for building in toxicity.

Acknowledging spectators as fundamental, active laboring actors has painted a clearer picture of the assemblage of play, while letting us turn a critical eye towards the mediation systems at play. What underlying fixtures assemble spectres? How do these modes of engagement treat their spectre-ship? What assumptions are scripted in? What are other parties scripting in? Do added methods of interaction truly refigure power relationships? We might be tempted to glorify systems that enable more participation, but it is important to disassemble the affordances made and the interactions that are encouraged. Let us also consider auxiliary platforms such as Reddit and Discord in the ecosystem of spectral engagement, as in the case of Niobe Labs.

This project is a call for both critical analyses and carefully crafted artifacts built with player-spectre and spectre-spectre networks in mind. Works like that of Nick Taylor (2016) and of Kristine Ask, Hendrik Storstein Spilker, and Martin Hansen (2019) have started accounting systems' transformations of spectre-ship. This article continues to connect the growing body of work around audiences, spectating, and spectral labor to scholarship about technological affordances and platform practices. My hope is to encourage more consciously-formulated playful interventions and explorations.

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