

Streaming Live from *The Playroom!* Media Identity, Design and Trojan Horses

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Abstract

A tech demo for demonstrating the use of the PlayStation 4, *The Playroom* has shifted from being a game to becoming a platform for multiple uses. The objective of this Thesis is to analyze the media identity of *The Playroom*, discovering its historical and socio-cultural significance. By utilizing these concepts through a framework of affordance analysis, game studies and participatory culture, we can further our understanding of the complex networks that make up live-streaming culture. In addition, this thesis will explore real-world examples of streaming practices and community interactions that turn *The Playroom* into what it is.

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Figure 1 – Screenshot of the Startup Screen of The Playroom. Unless indicated, all photos are screenshots.

1 - INTRODUCTION

In 2014, the eighth generation of consoles premiered with the PlayStation 4 and the Xbox One. In contrast to the seventh generation, which focused on establishing online gameplay, these new machines would aim to become multi-function devices, capable of using robust social sharing features. Although new consoles are at the vanguard of new gameplay-enhancing features, their quest to become the ultimate living room machines has required them to add steadily multiple functions. Watching videos, playing music and accessing the web have all become standard features in this process.

This generation will most likely be remembered for the ease of watching players stream their games online by sharing their content live or pre-recorded. These are shared gameplay experiences with online audiences, communicating with friends and unknown strangers while trying to complete levels, inviting them to give their opinions or even join you in the game. They are made by amateur broadcasters and a small share of professional celebrities. For Sony's console, it is a generation based on the inclusion of the SHARE button in the Dualshock 4 controller and the *Live from PlayStation* app (PlayStation Mobile Inc. Entertainment 2015) on the flagship device.

The *Live from PlayStation* app is used to view game streams, taking its sources from the two current services: Twitch.tv or Ustream.tv. Its menu is not too different than a channel selection screen from cable boxes, with hundreds of thumbnails of channels to choose from, organized by the amount of viewers, games, streaming service or air time. These thumbnails will show a game being played, some with footage from player's camera to capture their actions and

reactions. However, part of these thumbnails will contain no games, and instead just people doing ordinary and extraordinary things: that is the premise of *The Playroom* (SCE Japan Studio 2015).

The Playroom is an oddity in the PlayStation 4's roster of games. It is a tech-demo used to make players understand the gameplay mechanisms of their console and to discover its unique hardware and software features. It contains a few games, but its main purpose is to be in demonstration booths and in shop display cases, convincing newcomers to buy the console and the sharing peripherals.

Nevertheless it was in the homes of the players where this game suffered a crucial transformation, since it was not merely a demo anymore, but a platform of streaming day-to-day content, discussing with other people, creating their own shows or performing acts of exhibitionism (CrowbCat 2013). These demonstrations soon brought online crowds and made *The Playroom* the "front page" of the streaming websites and the PS4 app. Upon the growing popularity of these questionable streams, Twitch.tv pulled the plug to the channel (Crossley 2013), updated their terms of service (TOS), and banned users streaming on its website due to its "non-gaming related content".

What seemed like a short buzz, soon to disappear in obscurity, *The Playroom* streams continued to thrive on Ustream. Along the way, they also gained a certain support from Sony, which gave them an update to the app (Doucet 2014) that would legitimize streaming from the game.

The Playroom comes as the first of its kind, a standardized and easy platform to stream from the centre of one's household, succeeding previous webcam-based streaming services that require some user expertise and preceding the technological developments in mass mobile video streaming.

Through its unique nature, its history and how it continues to work, it raises several questions into a culture of viewership, media identity, design, ephemeral performance, participation and media control. It becomes a critical case of a platform that tackles past and future issues in relation to design, viewership and user participation. By asking ourselves the relations between these three and the object are, we enter an even more sophisticated perception of it; what is the media identity of such device?

Therefore, this work is an affordance analysis of *The Playroom* and the web of technologies tied to its use. By analysing the design and user participation practices of the game, I will explore the fundamental characteristics of live streaming and discover new ones to question further.

1.1 - THEORY

The theoretical background of this paper comprises of media identity, participatory culture and affordance analysis. Media identity, as used by William Uricchio (1998), is a comparative approach to analysing media through its socio-historical significance. In comparison to this model, the *theoretical console* by Nana Verhoeff (2009), was also taken into account as a more modern way of conceptualizing relevant media objects through historical and theoretical analysis. Both of these approaches take relevant technological artefacts that precede their subject as a necessary standpoint from how they are crafted, along with the relevant sociological discussions of their time.

Their arguments go beyond technological capabilities, and discuss the users and the core institutions that mean to utilize these objects. In Uricchio's case, it incorporates the first television networks and how the approach to their application would be formed in relation to their experience of past technologies (Uricchio 1998, 118). These include future projections, policy formulations, State objectives and forms of creating content that modified the original media identity of the object.

On the other hand, in a more modern view, Verhoeff (2009) analyses a *theoretical console*, an object analysis which derives from the *theoretical object* (Bois, et al. 1998). The object, which is relevant not only for being innovative, but for creating the possibility to question historical and theoretical conceptions, gives itself a timeless significance. In turn, it becomes a console, through its capability of transformative usage, being reprogrammable by the user (Verhoeff 2009, 285).

Moreover, Verhoeff's point of view allows us not only to critique the gadget for what it is historically, but what kind of question it raises, how it redefines theory concerning the object (2009, 284). The theoretical console is not just an object that is technologically advanced, but it is one that represents a shift in the thought process of its utilization, creating new perceptions of the (type of) object by the users. The Nintendo DS, Verhoeff's *theoretical console*, is like the Playstation 4; not the first of its kind, but the first that shifts the users' perceptions of how to

utilize features such as touch controls and dual screens, in an innovative and revolutionary way (283).

These standpoints converge in many forms, giving a relevant introductory scope for which to view *The Playroom*. Uricchio's (1998) media identity is more structured in the invention of the object, its precedents and usage by institutions, while Verhoeff (2009) takes user interaction as a critical point of her research into the "consoleness" of the device (2009, 294).

Furthermore, the *Dispositif* by Michel Foucault (1980, 194-198) will be discuss the object and its extensions, as it is by Verhoeff (2009) and Schäfer (2011) in their publications. This concept, which encompasses the object along a network of heterogeneous actors, helps to address issues relating to the convergence of different technologies, actors and institutions.

These convergences complicate further *The Playroom* and its identity as an object. This has led me to different views on the socio-significance of the *Dispositif*. It can be used in game-type situations, leading this text to review casual game for scholars such as Jones and Thiruvathukal (2012, 30) or Jesper Juul (2012) who go into detail on the social significance of game experience.

But ultimately, its ability to create amateur shows made it necessary to view it under the umbrella of participatory culture and media studies scholars such as Jenkins (2006), Schäfer (2011), Müller (2009), Andreijvik (2003) and Dyer-Witheford and de Peuter (2009).

The definition adopted for participatory culture will be the one devised by Henry Jenkins:

1. With relatively low barriers to artistic expression and civic engagement.
2. With strong support for creating and sharing one's creations with others.
3. With some type of informal mentorship whereby what is known by the most experienced is passed along to novices.
4. Where members believe that their contributions matter.
5. Where members feel some degree of social connection with one another (at the least they care what other people think about what they have created (2009, 7)

As I will demonstrate, that by obeying to all these standards, *The Playroom* is an object of participatory culture through the appropriation taken by users and the community.

Furthermore, I will expand upon participatory culture theory, taking into account the divergences in the role of the user versus institutions. Eggo Müller (2009, 49-56) identifies two typical approaches: a utopian one mostly on the positive impact of fan-communities in modifying the behaviour of the media industry, through what Jenkins (2006), for example, calls convergence culture.

On the other side, are the dystopian approaches well exemplified by Mark Andrejevic's (2003) neo-Marxist views on early webcam show experiences; a critique on works through a distinctive top-bottom structure of relations between producer and consumer, where the shifting boundaries of work exploit the consumer through his leisure time.

Other analysis are helpful to understand such divisions, such as Dyer-Withford and de Peuter's (2009) book *Games of Empire*, which take into account the transformative quality of the console in the industry; of machines that are meant to be "Trojan horses", masquerading as consoles to become centres of capitalization in our living room (2009, 74-77).

Although I agree on the debatable nature of dystopian discourses, Dyer-Withford and de Peuter (2009) bring a detailed vision of the inner workings of the console industry that was valuable to assess the economic value of the console industry and of the extra features in the console.

In addition, the bulk of this paper will use affordance analysis (Gibson 1977, Norman 2004, Schäfer 2011), to interpret the role of design and participatory culture in the media identity of *The Playroom*. The view of these affordances will come from a digital media perspective, and by using *The Playroom* capability to display living rooms as the analytical frame.

Finally, in consideration of the practices by users and streamers in relation to media identity and affordances, the historical and theoretical considerations of Uricchio (1998) and Äuslander (2008) will give depth to affordance theory.

1.2 - METHOD

As mentioned before, the main method referenced along this research, affordance analysis, created by James J. Gibson (1977) and adapted for design by Donald Norman (2013) is utilized to understand the relations between user's perceptions of objects and their actual functions.

In this research the purpose of the technique was to map the design interactions between the console, software and streaming networks, or the *Dispositif*. While the use of affordance analysis gives an understanding of object properties and perceived properties, participatory culture studies help to explore the socio-cultural dynamics these objects.

My inspiration for the use of participatory culture with affordance analysis comes from Schäfer (2011, 65), whose work on the appropriation of media devices provides a solid ground for examining the relationship between hardware, software and the internet. By using this method and the following considerations, I can examine media identity more profoundly than by just analysing historical and theoretical aspects of the industry.

Considering the platform is one made in response to user appropriation, the point of view from which I take my analysis of technology is better exposed by Hardt and Negri: “Machines and technologies are not neutral and independent entities. They are biopolitical tools deployed in specific regimes of production, which facilitate certain practices and prohibit others” (2000, 405). With this in mind, the discourses embedded within *The Playroom* are taken into account as part of the relationship between user and interface, maintaining them as a consideration for the influence of social practices involving the device.

Several different steps were utilised in order to analyse the game. The first was using Play as a Method. Methods from platform studies were not as technical, as done by Montfort and Bogost (2009), but more intuitive with regards to social impacts of design as done by Jones and Thiruvathukal (2012). Play as a Method allowed me to learn the basics of the game, as it did not have a manual to start with. Additionally, it helped to find inquiries and restraints that would be later discussed, as well as to experiment with the programs. Furthermore I also played as the audience, learning how the game is different from the streaming website to the PlayStation App.

The second step was to watch streams online; this was done over a two month period, with streams selected at random. These streams were a valuable asset for demonstrating that the content in *The Playroom* was not composed only of unique streams, and allowed me to draft a minimal comparison of streaming profiles in relation to the activity they perform. This was based on previous game streaming studies (Cheung and Huang 2011, Smith, Obrist and Wright 2013) and on live streaming platforms, both influential in analysing user behaviour and affordance differences (Achilleos 2003, B. Smith 2005, Kreps 2010, Shamma, et al. 2009, Bleakley 2014).

Next was to find common elements between streams and usage of the design features in these streams. This activity was a more difficult one as many streams would disappear without a trace, while some would have temporary videos in their repertoire. Furthermore, there is the possibility that random streams may never use the game again after the first time, making them hard to define. Therefore, streams that did not always have coherent schedules were also difficult to accompany. Nevertheless, following streamers with fixed show schedules allowed me to interview them informally for their point of view on the game.

Finally, *The Playroom*'s individual users' social website communities were explored, along with *The Playroom* subreddit, a virtual bulletin board and forum. While streamers' fan communities showed an extension to the streams, the Subreddit was a much more interesting source to monitor due to the evolution of the relationship between the group and the streaming service. This allowed me to identify small, but considerable, interesting occurrences, such as fans not of individual streamers but of watching variable streams.

1.3 – STRUCTURE

As demonstrated, the complex nature of *The Playroom* affects several different mediums, and by using affordance analysis as the primary method for engaging with the device, other methods will be employed as minor assistances to the text.

Historically, *The Playroom* is a tech-demo that suffered an appropriation of visible implications to its ecosystem before becoming a broadcasting studio. Bearing this in mind, along the initial part of the trajectory of this research will start using historical analysis of affordances with the *dispositif* and with similar devices, by taking examples from webcam practices (B. Smith 2005, Achilleos 2003).

This perspective helps to understand better the positive and negative implications of appropriation, moving into the case study as an example for the role of the mechanisms in place as the facilitator of live streaming practices. Moreover, the subsequent creation of the *AR Studio* (SCE Japan Studio 2015), will contribute to discover the response through the design and the discourses associated with standardising the system.

Afterwards, this will be followed by an analysis of affordances in design used by streamers and communities; these will take inspiration from live camera and game streaming studies (Cheung and Huang 2011, Smith, Obrist and Wright 2013, Shamma, et al. 2009, Bleakley

2014). The next step will be to confront the challenges of *The Playroom*, measuring the restraints of the device, and taking perspectives from observations of streamers and personal testing.

It is worth noting, that this analysis was done on firmware version 2.50, before the inclusion of Youtube gaming to the sharing platforms. Therefore, although it takes into consideration the future impact of this device on a more popular platform, it did not follow videos on YouTube, but it does acknowledge that videos are permitted on the platform.

Also, describing *The Playroom* through pictures is not easily achieved. In its most basic form, the game would only display a reflection of the player's living room, therefore, most of the images are taken from screenshots where there is augmented interaction between the user and the game (Figure 2).

Finally, on the conclusion I will discuss in details the outcomes of the investigation in regards to the affordance analysis, and how the research has risen in relation to participatory culture and media identity. Additionally, challenges and expected predictions will also be evaluated for future improvements.



Figure 2- Asobi gets angry at this Playroom trailer screenshot (Sonyplaystation 2013).

2 – On Media Identity & Streaming in the PS4

Within the development of media technologies, the perception of media identity is a complicated term. Its complexity comes from the different factors that add to a device's functions, the forms people use it, the forms institutions give to it, and how scholars may perceive it as well.

In researching the media identity of television, Uricchio (1998) describes our current knowledge of film as a ‘‘heuristic convenience’’, one in which film exists as an autonomous medium, and is set apart from its conceptualization as a broader network of media technologies and practices (118). Understanding this broad network of technologies helps to get a critical view of certain concepts. Furthermore, constructions in television and film create new perspectives on analysing resulting media.

During the process, we'll see many similarities between television history and console history. For instance, the first television and film key actors were responsible for many pre-film technologies. Likewise, console companies derive from these same industrial enterprises responsible for hardware and software development in the digital recording and transmission.

Looking back at technologies of live transmission, such as the telegraph and telephone, Uricchio points out to how simultaneous broadcast allowed for several conceptualizations of these instantaneous media communication devices. Many debates would try to define the television, not as its own invention but as an extension of another device (122). In turn, this identity would soon be transformed by the creation of the phonograph and film.

Taking the notion of ‘‘liveness’’ as a central characteristic of early television, the exploration of television's media identity would take a deep turn through the development of recordable devices, losing real simultaneity and creating ‘‘fake’’ live experiences (119). With it, new romanticised discourses emerged, reinventing ‘‘liveness’’ as something strong enough for audiences to believe what they saw was real, such as the ‘Lumière effect’. These descriptions of liveness would originate terms such as bioscope, living pictures or a ‘window of the world’ (125). Television would go on from then as simulation of ‘‘liveness’’, with rare events such as Princess Diana's funeral (1998, 125) representing true simultaneity.

Live-streaming, however, could be the closest reminiscent to the obscura, the real experience of simultaneity expected from the television (125). These have evolved a long way

from the static and unbearable zoo cams towards platforms with hundreds of channels per day, all around the world, streaming to anyone, on what many would expect to be an unlikely source: a videogame console.

Consoles have opened up new doors for transmission. Before sharing features arrived, the transmission to multiple users was limited to a few webcam adventurers with technical skill, to pc audiences and done manually through websites. The major breakthrough in the popularity of mass ‘live’ user broadcast occurred with videogame streaming, making websites slightly popular such as Justin.tv into multimillion dollar enterprises. This consequently led to the development of Twitch.tv, the current platform for watching live game footage (Achilleos 2003).

‘Live’ in current streams relates to a non-purposefully or, in some cases, forcefully implemented ‘lag’ that participants face while streaming from platforms, preventing users from developing true situations of simultaneity. Within live streaming platforms; the PlayStation 4 and the Xbox One are at the vanguard of mass distribution of live living room content, making *The Playroom* the only non-gaming form of living room streaming to a mass audience.

In fact, it was the original Xbox’s online user interface and connectivity that gave the label of “Trojan horses” to any console with non-gaming extra features (Dyer-Witthford and de Peuter 2009, 75). Through them, consoles were “implanted” in living rooms for continuous use, effectively to regain money lost in the sale of the device by commoditizing on the user’s time. These features are usually extensions of games, added achievements, social interactions or new forms of watching media. Few of these features transform the console’s purpose as drastically as video streaming.

But video streaming didn’t come as a gimmick to consoles; sharing videos was already an established practice in gaming, from the early days of computer, when distributing Doom gameplay videos or “Quake movies” developed into well-crafted productions of videogame art called Machinima (Lowood and Nitsche 2011, 7). Unlike gameplay videos, live-streaming or “life-logging” has never been a truly consolidated practice, with a few noticeable solo performers such as Jennicam (B. Smith 2005) and Justin Kan (Achilleos 2003) and many copycat presenters that tried to succeed in their footsteps.

Just as YouTube became the hub for video sharing, Justin Kan’s own lifelogging website evolved into a platform for multiple video streams: Justin.tv. The website was meant to host live streams, but users made it broadcast live content, reprisals of TV shows and to stream games.

These brought in the same copyright issues that sites such as YouTube faced, but in an ephemeral manner. Like a pirated television, users could watch shows without any control of the segments (fast-forwarding, rewinding) to what other users were streaming.

Gaming became so popular on Justin.tv that its communities surpassed all the other content on the website. This prompted the creation of the now popular Twitch.tv, a channel that would ultimately become its own website, acquired later by Amazon.com and connected worldwide to millions of console devices which can stream a player's sessions.

When Justin.tv was shut down, live-streaming became open to new endeavours. These were found in an unlikely game, a tech-demo, a software that had only demonstrative purpose, but one that afforded users which possessed the PlayStation Camera, and a mobile device or tablet to stream anything they could in the premises of their homes. Users would not be limited to thumbnails in the corner of their screens, but would become the stars of *The Playroom*.

3 - The Playroom 1.0

While the great interest of this paper is to describe the capabilities and social constructions of this *dispositif*, this text has yet to explore this software and its functions. Although its historical precedents are relevant, the media identity of a device is not only the agglomeration of multiple technologies that compose it, but also its functionality in detail and social discourse that follows its evolution.

In this specific case, the employment of affordance theory will help to dissect some of the features of the game, and at the same time will also demonstrate the potential, limitations and appropriations, along with the examples of the shift in relations between institutions and players that these create. These relations are a result of design decisions that are often pragmatically conceived, but are ultimately interpreted as ideological constructions (Schäfer 2011, 55).

Affordance theory comprises a series of concepts that mix design studies with user psychology, interpreting the composition of objects and their functions to their use by people. Affordances are the perceived and real properties of objects; the use of glass objects affords us to see through it, but also affords vandals to break it (Norman 2013, 9). In terms of technology and their design, Norman points out: "Visibility indicates the mapping between intended actions and actual operations" (2013, 8).

In digital media, mapping in hardware and software allow us to follow interactions and different forms of participation (Schäfer 2011). Schäfer, for example, takes hardware, software and the internet as integral to the characteristics of analysing a computer (2011, 56). For Schäfer the computer is the basic affordance, where practices are constructed through software, which is modular and tentative, meaning it is never finished (2011, 64). As an unfinished piece, software enables the appropriations of users, changing its code to construct new things, whilst a computer represents numerous affordances through its reprogrammable nature.

For example, a console; in the case of the PlayStation 4, does not provide the affordance of reprogrammability to its main users. It is a closed system and its main function is to play the games and software using pre-approved devices. Additionally, the software in the console is also not meant to be modified, unless it is done by the original developer.

However, previous consoles; such as the Xbox, were popular for their appropriation; a process that created conflicts between modders and companies. With the establishment of “weekly updates” corporative control was regained in the guise of performance improvements or bug fixing. These updates would ultimately lock out users from their modified machines (2011, 68). Since then the line between owning a device and having the right to appropriate it has become increasingly blurry, and the establishment of “always online” techniques show themselves not only as deterrents for innovation, but as forms of corporate control.

Consequently, *The Playroom* falls right into this struggle, as users can only manage to innovate in the technique of using their spaces for streaming¹, but not software and hardware. Even so, it is a tech demo that serves to demonstrate the novelty features of the PlayStation 4 console and its accessories, encouraging them to buy or explore the device further. The game requires a Dualshock 4 controller and will only load with a PlayStation Camera connected, but only users with an internet connection and the PlayStation App can access all its features.

At launch, *The Playroom* allowed for players to access only three games that used the motion capturing capabilities of the PlayStation Camera combined with the Dualshock 4 controller’s movement based features. All of these served for exploring Augmented Reality in the console, with only one being an actual game. The other two were similar to tutorials, using the living room as a background while the player engages with virtual playmates. Of these initial three games, two of them would eventually lead to the establishment of *The Playroom* streams.

¹ Although the main affordance of *The Playroom* is filming anything, streaming can also be considered an affordance as it is programmable in the software, with certain games having the feature disabled by parent companies.

The first one is an augmented reality game where the player's living room is the stage; *Playing With Asobi* could very well be considered the starting point of many users in *The Playroom*. Asobi is a small spherical robot that flies around the room, teaching players how to use the peripherals. One could say that the tutorial bot is the “game genie”; invoked from the controller by rubbing the touchpad like a magic lamp, he appears in all the other *Playroom* games to guide players.

This game has no other purposes other than interacting with the robot. His emotions will be displayed through his visor in corresponding eye shapes and symbols or through acts and noises. Caressing and tickling him will make him jerk around happy, while hitting consistently will make him “attack” the players by burning, electrocuting or freezing the users' face (Figure 2).

Developers clearly created Asobi to be touched and interacted with; if the player chooses to ignore him, Asobi will occupy a large area of the screen and show his discontent by playing alone in his visor. Though he will always win, his visor will show that he remains upset, urging the player to feel sorry for the robot and interact with him once more.

The second augmented reality game players used to stream from is called *AR Bots*. This is similar to Asobi, but with several little robots which seem to “live inside” the Dualshock 4 controller, coming out and running around the player's living room. While these are running around the room, tripping or flying around when kicked, Asobi teaches the player different forms of interaction with them. Yet, there is one thing he does not tell the players to do: to press the SHARE button.

Although the SHARE button is usable in *The Playroom*, in between these two games the experience of sharing content is neither emphasized nor promoted. At the same time, all the peripherals needed for *The Playroom* are advertised as accessories for the game and to share content. Even without incentives to share, the relation between the novelty aspect of the game and the console accessories make it seemingly easy that players would end up sharing their experiences in *The Playroom*.

But sharing has its own limitations: once players /decide to share their content they have the option of using one of two streaming services, Twitch.tv or Ustream.tv. Both of these are entirely public and contain no way for users to set privacy options prohibiting non-invited users.

In fact, as the objective of these websites is to amass viewers, it makes sense that privacy options are limited to very few choices such as manually blocking harmful users.

However good it may be for the website, limiting privacy to allow almost anyone to see content is a double-edged sword: it combines the will of users to stream whatever they want with the pressure from the viewing community to engage in their own interests. These characteristics not only create interesting amateur shows but inappropriate ones too. As something that stood out, and the result of the default settings to display top channels on the app's home page, these videos attracted many viewers, viralizing *The Playroom* streams.

3.1 - Case Study: Twitch vs The Playroom

Twitch.tv is the most popular out of the two streaming platforms for games. It was once the main hub for *The Playroom*, becoming the first experimental playground for the game. In two weeks, the game would be streamed by several users, until finally being banned (McCormick 2013). One channel, hosted by a couple in their living room, even caught the attention of Sony; this was *The Spartan Show* (The Spartan Show 2015).

This broadcast channel, which hosted game content and answered calls from spectators, one day amassed over two hundred thousand views (Crawley 2013). On one occasion, as the show managed to bring in over five thousand viewers, Adam Boyes, vice-president of publisher and executive relations of Sony, decided to call in and complement the way the couple had used *The Playroom* to do something entirely new (McCormick 2013).

The channel would later move to PC to continue broadcasting on Twitch, leaving as an example of a successful show in *The Playroom*. A success that was not without issues, as with the height of the show's *Playroom* popularity, it was swamped with prank calls. But even the most popular game streamers suffer these or other harassment forms.

The Playroom is host to few positive success stories like *The Spartan Show*, when many of the other broadcasts are accused of indiscreet behaviour. The controversial nature of these shows came to the spotlight when Twitch finally decided to ban individual users from the service (Farokhmanesh 2013). Although, it is possible to stream from Twitch, they made it impossible for users to find streamers through the *Playroom* channel on their website, making it an unviable internet streaming source². This reaction came alongside a variety of cases of inappropriate

² The PS4 app will find users, even on the main page, but streaming from the game is likely to get players banned.

behaviour in the game including: drug use, sex, nudity and abuse. Some of these are still common in streams today.

Clearly, the free platform for streaming living room content was being used in provocative ways by the both streamers and the viewers. For instance, one can observe in a few online videos, a user trying to entice a minor to “look” for him outside his apartment window (CrowbCat 2013), or giving inappropriate suggestions to families who are experiencing the game for the first time.

As expected, these are all violations of the terms of service of the PlayStation Network, Twitch.tv and Ustream.tv (Sony Computer Entertainment 2012; Twitch.tv 2015; Ustream 2015). Therefore, as the reputation of Twitch was on the line, it seemed appropriate for it to clamp down on this particular channel, especially if they had no control over the amount of nefarious content being broadcast. Nevertheless, it is also arguable that through previous history, even with Justin.tv, Twitch could have been well prepared to deal with adult content by either filtering, blocking or simply putting barriers for users on *The Playroom* that already exist for mature games.

Twitch’s response to the closure was an update of its terms of service and a note reminding that Twitch.tv was meant only for content related to gaming³ (Farokhmanesh 2013). In fact, other parts of its user guidelines indicate that music videos are meant to only be made of original material, prohibit shiftlessness or revealing clothes, illegal activities and indicate a list of games prohibited on the website (Twitch.tv 2015).

Nonetheless, what is arbitrary is how the list of disallowed games does not include *The Playroom*, but does not exclude the online virtual world simulator Second Life (Twitch.tv 2015). Though it is not the objective of this thesis to analyse why Twitch bans certain games, it is noteworthy that a game may be banned for “possible” virtual nudity while another might not be with real world nudity.

Moreover, what this chapter demonstrated, were the initial uses and the appropriations of the platform. The novelty factor of this platform as well as its main affordance is that it can be used from the living room, allowing users to explore it in different ways. And after these streams

³ On a side-note, this action could have been fixed using design, but we could also consider that Twitch hosts several channels that are gaming-related but are not in a game, such as *The Spartan Show* nowadays.

surged, surprisingly polarizing actions came forth, both positively from Sony and negatively from Twitch.

The reaction by Twitch.tv would in turn be a catalyst for users to move to the rival Ustream.tv website. What came out of this experience is a reflection on live streaming. These involve power, privacy, and literacy within a streaming service. These issues were already existent with platforms such as Justin.tv on the web, but they became more relevant as the “Trojan horse” became moved into homes.

4 – Putting *The Playroom* in the Mainstream: *The AR Studio* and lessons in restraint mechanisms

Six months after the *The Playroom* was banned on Twitch, it enjoyed the same popular use in Ustream as in its previous platform. It was then that Sony brought a twist to the game: *The Augmented Reality Studio* (PlayStation Mobile Inc. Entertainment 2015, Doucet 2014). Also known as *AR Studio*, the add-on would cater especially to the live-streaming community (Figure 3).

The *AR Studio* brought users new advantages over the previous forms of streaming in *The Playroom*. First, users did not have to play with *AR bots* or with *Asobi* in order to stream directly from their living rooms. Additionally, by using the *PlayStation App* they could adjust many settings in the game, such as change or turn off the music, removing the repetitive background soundtrack. On top of that, the app allows users to add personal photos and



Figure 3 - An example of the AR Studio from its advertisement, with Asobi, banners and balloons coming out of the controllers and a poll for users to answer (Doucet 2014).



Figure 4 - Still shot from The Playroom Advertisement (Doucet 2014)

banners, change the lighting colour, add smoke, lasers or confetti effects, put virtual masks on, and create virtual balloons on the *Toy Maker* (a part of the app that allows you to draw or insert images).

Another feature is the ability to show replays of game recordings. This feature, which could contribute greatly to a game talk show, could be seen as response to the game-related content made by Twitch. Especially considering that videos cannot be uploaded from any other source than from the games in the PlayStation 4.

In fact, other than photos, the remaining content is restricted to PS4-made files. There is no real reason given for this, but it might be to avoid copyrighted material from being played directly from streaming services⁴. In my experience watching these channels, it was a feature rarely witnessed, as many streams were not related to gaming experiences.

With the *AR Studio*, Sony employed a marketing strategy for *The Playroom* to “inspire” users to broadcast their talents. This is present in both the advertisement and in within the game’s design. The advertisement demonstrated a television guide of streams (Figure 4), with users performing music acts, parties, talk shows, in a more colourful reality of what actually happens (Doucet 2014).

⁴ This happens anyways with users streaming their television sets.



Figure 5 - Screenshots of The Playroom Loading Screens. One suggests sharing content while the other one tells users to be mindful of what they share.

Beyond the commercial and into the game design, the add-on also motivates the player to share, mentioning several times during its loading screen and through *Asobi* that players can broadcast their living rooms. As shown in Figure 5: “Just hit the SHARE button and go ‘on air’. Who knows, you could be the next internet sensation!”

Although the game does remind the player to be mindful of its broadcasts (Figure 5), it is much more emphatic on the benefits of sharing than it is on user responsibility. Again, users are reminded of content responsibility only once in the game and once more while logging in the app, whilst they are asked to share in every *AR Studio* loading screen of the game.

Furthermore, there is lack of privacy controls. The only mechanisms the game offers are the virtual masks, which often may disappear from the face of the user if the camera loses him from sight. Though usernames can be a form of privacy, they cannot preserve someone’s identity from video identification.

Through Ustream, “private” streams are available, but only after going through highly specific options using a computer⁵. The streams can be hidden from the search page of the website and other search engines online, but are not completely private, and users can be found using a direct link to the account stream. Because these options are only controllable on PC, it makes it more unlikely that users will take time to master them.

Regarding content, broadcasters are bound by several agreements, the Terms of Service from the PlayStation Network, the Software Usage Terms and the Terms of the website hosting the content (Sony Computer Entertainment 2012, Sony Computer Entertainment 2013, Twitch.tv 2015, Ustream 2015). As users often ignore TOS (Rainer and Köpsell 2010), the multitude of these, however similar they are, only increase the chances they would not be read.

⁵ In fact, Ustream’s settings can only be modified using the internet website, offering no chance for a user to adjust it properly if he is learning how to stream through his console.



Figure 6 – The PlayStation Mobile App Loading Screen (PlayStation Mobile Inc. Entertainment 2015).



Figure 7 – The PlayStation Mobile App options, broadcast is greyed-out.

The *PlayStation Mobile App*, used to customize streams, also contains messages on sharing and user responsibility (Figure 6). Most of the app's features are available offline, the exception being the broadcast options, which remains greyed out until the game is connected to a streaming service (Figure 7).

The broadcast options allows for video sharing, question polls and to display the result of these polls with pie charts. Essentially, these are features that really only make sense online. But due to the lack of manuals or to the “learn by playing” approach of the game, to get to know these features forces the user to login to a streaming website. Consequently, the lack of privacy controls in these websites makes it so users need agree to stream the inside of their homes to a global audience to access all the features of the game.

The mobile app also tells users to be mindful of their streams with more specificity than the game itself, mentioning the Terms of Use and the Software Usage Terms (Sony Computer Entertainment 2013, Sony Computer Entertainment 2012), both references not present within the game's televisual loading screens.

Sony's concerns become clearer as the game emphasizes specifically on the infringement of intellectual property and privacy rights on these loading screens (Figure 6). Even though copyright concerns are valid, it is difficult and unlikely that the PS4, a closed system for modification, to allow for streamers to link to a television feed like the ones in Justin.tv. The closest forms of violation to this are users filming their televisions, watching shows with the audience, something that is not necessarily a breach of copyright.

While many amateur streamers may not care so much about TOS, often coming around the platform once before moving on to new games, the serious users of *The Playroom* will most likely obey the basic conditions for streaming and display some knowledge of the terms. This

was observed in many streams, where banners are used to redirect viewers to their other social media websites such as Facebook or Twitter channels and to prevent a violation of the terms of service that prohibit commercial activity and advertising on streaming platforms.

From observing the history of *The Playroom*, from the creation of the software to the appropriation by users and the response from Sony, and considering “technology also has to be acknowledged as being discursive, or at least as something which represents the ongoing discourse on participation” (Schäfer 2011, 15), it is possible to imply that there is an institutionalization of a service done through the software update of the *AR Studio*.

While *The Playroom* is neither the main selling aspect of the console, and neither the reason for success of its camera (Tassi 2014), the discourse employed with the *AR Studio* launch traces strongly to the commoditization of immaterial labour (Dyer-Witheford and de Peuter 2009).

This might even be considered an act of implicit participation, acts performed voluntarily without the individual’s knowledge (Schäfer 2011, 44). Nevertheless, this perspective becomes ever more eye-catching when we consider that users are bound by no-privacy rules whatsoever in streaming websites consoles, forcing them to expose themselves in order to explore the game.

Finally, as we critique the design features of *The Playroom* and its peripherals, we can understand how these corporate practices and software design transformations are capable of being strong indicators of an institutional bias towards streaming practices. In addition, these practices come in the form of designed restrictions to impede users on breaking certain rules. Moreover, features such as the lack of support for external videos prevent users from engaging creatively as well as disqualify them from using content labelled for fair use.

In particular, we witness the answer to the practice of appropriation of content demonstrated in the previous ones. While it is based on an institutional creation, it is highly derivative of the previous social and technological appropriation practices that shaped the corporate message. On the next chapter I will focus more on the objectives of the streamers that have taken these designs and transformed them according to their needs.

5 - Who are these Streamers?

Despite having software as their common denominator, the streamers of *The Playroom* are plenty diverse. Separating them into different categories of personalities, just as it has been done in game streaming (Cheung and Huang 2011, Smith, Obrist and Wright 2013), is too long and complex a task for this thesis. Yet, to get a clearer picture of their methods, objectives and their cultural impact on audiences, I use three distinguishing features to divide them in two basic categories; *organized streamers* and *disorganized streamers*.

The first distinguishing feature that separates these two is the handling of the game. *Disorganized streamers* are likely to have limited control over the game's features; I found countless of these users streaming from *Playing with Asobi* or *VR Bots* after the *AR Studio* was introduced. They often lack the knowledge of changing the game music, often broadcasting for hours with the same background noise, even when playing other music in the background. *Organized streamers* on the other hand tend to be resourceful with the game, using many features to spice up their performances or knowing the TOS.

The second main difference is that the *disorganized streamers* in *The Playroom* seek the game as a form of entertainment; when some may be testing the game for the first time and becoming aware of what they can do. Others have enjoyed the experience, alone or with friends and eventually return for more amusement. Oppositely, *organized streamers* seem to have an objective in mind: creating a community, sharing hobbies, and improving their business.

The third difference is the groups created around these two users. Most *organized streamers* create social media networks, websites and other mechanisms to promote their shows, business, sell fan material, etc. Differently, *disorganized streamers* may have fans or even have done a show more than once, but are unreliable to follow.

Starting with the *Organized Streamers*, I will divide this group further into two subcategories: *show streamers* and *augmented workplaces*. These two subcategories are not mutually exclusive, and many users in one category may also belong to the other.

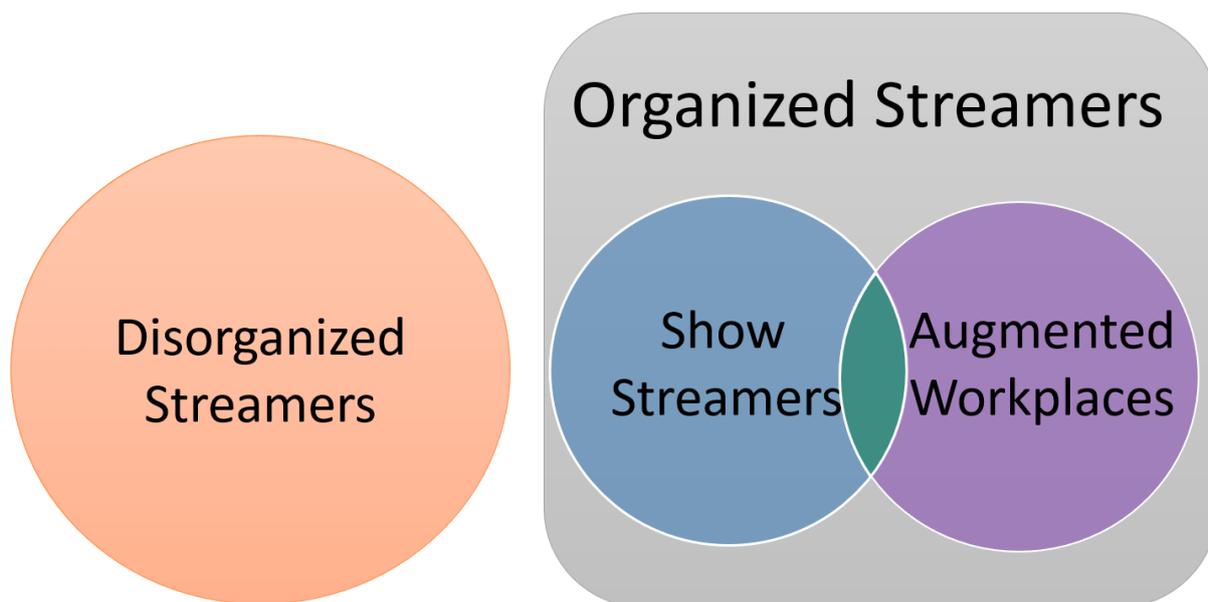


Figure 8 – A division of the Streamers in The Playroom.

5a - Show Streamers

Show streamers are of unlimited types: talk shows, game shows, movie shows, DIY shows or even users sharing hobbies. Their main feature is interacting with the audience. Many do this while completing tasks that work to their personal enjoyment, demonstrating talent and using it to achieve popularity. Some, especially artists and musicians, use *The Playroom* as a part time experiment for further success of their careers. These users are more similar to professional videogame streamers (Smith, Obrist and Wright 2013, Cheung and Huang 2011), lifeloggers (Achilleos 2003), and even webcam-sex workers (Bleakley 2014).

Interesting examples observed include Game Dungeon Pro (2015), a streamer who places the camera directly in front of a CTR television (Figure 9) to stream vintage games in a game-icon filled room (these in turn are sold on his website). Another is Jase2pointkilo, who holds a horticulture show, demonstrating diverse gardening techniques (2015); Slimetavern a tavern who uses the poll feature to suggest drinks and teaches users to connect with them for audio conversations (Slimetavern n.d.); and Kinho & Mih (2015), a Brazilian couple broadcasting from their couch a videogame and variety talk-show, also selling game memorabilia online.

5b - Augmented Workplaces

These are users of *The Playroom* that complement their commercial activities by streaming from their jobs. In this category there are many artists, painters, musicians, DJs, tattoo parlours and even dog kennels utilizing *The Playroom* as an extension of their business practices. These are often represented by cameras in steady angles, used to film the day-to-day of the user rather than

to interact with them; others position the camera in a first person perspective, giving the viewer the sight of the task at hand (a drawing or a mixing booth) but not of the streamer.

Lack of communication, however, is not a rule and many streamers augmenting their workplaces may also interact with the viewers, performing requests or asking for collaboration, making many *augmented workplaces* converge with *show streams*.

Augmented workplaces may be the closest examples of simultaneity to what Uricchio (1998, 125) exemplified in the webcam as the successor to the camera obscura. Many of these shows are broadcast at the streamer's working hours, being closer to surveillance footage or nature cams. The big difference is that the experience is watchable, as behind-the-scenes footage of workplaces can be entertaining, informative and cooperative while advertising the business.

The practice of sharing these types of streams is not new and resembles many bigger other examples: dog kennels and animal foundations looking for donors (also present in *The Playroom*), crowdsourced policing at the US border (BBC News 2006) or in the streets of London (BBC News 2009).

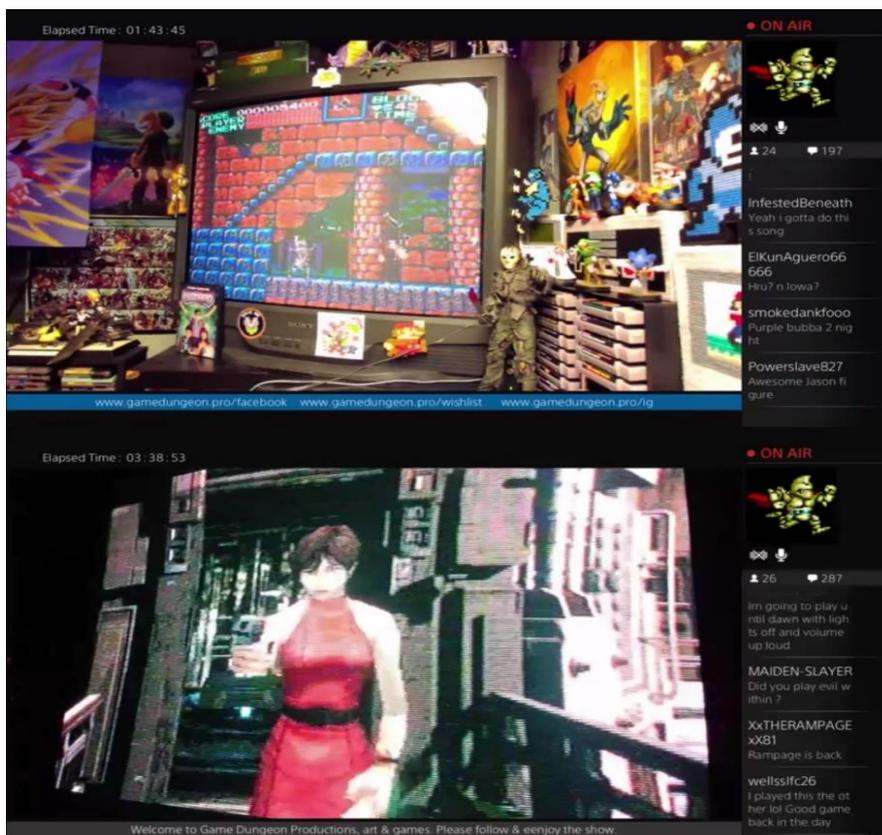


Figure 9 – Game Dungeon Pro's Stream shows memorabilia while playing. Also, he adjusts the camera for viewers to enjoy the vintage game streaming experience without making it look like its being filmed (GameDungeon 2015)

Additionally, cameras there are many places where cameras are part of corporate culture, with several professions requiring constant video monitoring. Unlike videogames, where user-audience communication transforms the way of playing (Smith, Obrist and Wright 2013), it may be that life-streaming does not suffer from the same transformative course.

In this regard, some studies have shown contributions of live-streaming practices with online audiences. Shamma, et al.'s (2009) study of online DJs exposed varying degrees of participation between streamers and viewers. DJs felt more comfortable experimenting new tracks and sounds on online audiences, giving them less pressure to work. Once the jockeys would find their viewership rising, they would accept it as a signal for a good performance and try to head in that musical direction (180). On the other hand, virtual audiences were hard to read due to the lack of physical visualization of the members.

Similarly in *The Playroom*, there are experiences like Peter Promo's Detroit Studio (2015), where Hip Hop music is produced. While the sessions are going on, he uses the poll feature to receive live feedback from the users (Figure 10) and change the music accordingly.

Finally, one main issue to consider between these two subcategories is the creation of immaterial labour. As Dyer-Witheford and de Peuter point out, it is a type of labour that "involves the less-tangible symbolic and social dimensions of commodities" (2009, 3). Immaterial labour sparks from tasks that are often unnoticeable as a form of labour, but tend to consume time and mental resources from players, modders or hobbyists.

These are generally creative tasks, which users continue doing after work in their free time or that companies extract from the commoditization of users' time. What should be questioned is the value of the *Playroom* to corporations. Online games receive their success not only from the game, but from community interaction, collective productions of immaterial objects and free advertisement from players (2009, 148). *The Playroom*, on the other, is only

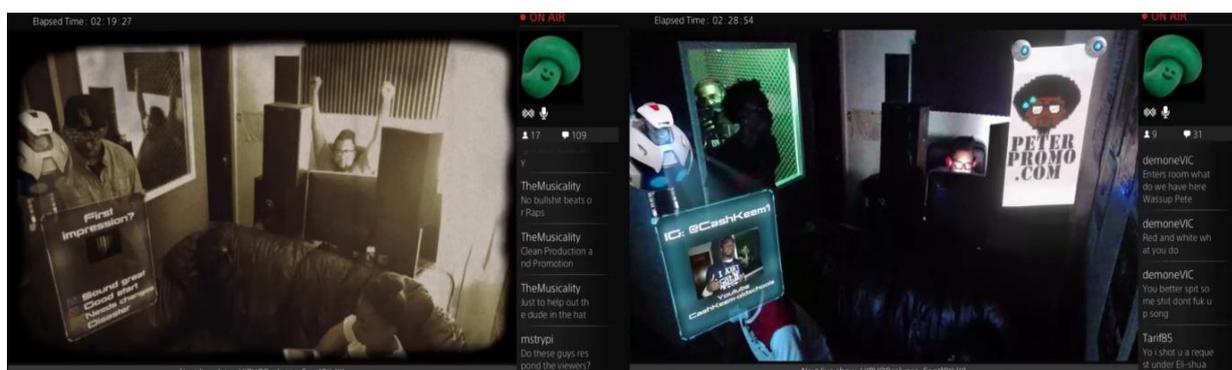


Figure 10- Screenshot of Hip Hop Studio using The Playroom effects, Banners and Questionnaires (PeterPromo 2015)

witnessed by users on the PlayStation app or on Ustream, yet these streams may still hold high positions. Even so, as an advertisement for the PS4, sometimes it is nearly impossible to tell if users are streaming from it, making it hard to trace a commoditization of this practice.

From another point of view, and from the experience of previous lifelogging websites, we can argue that companies like Ustream benefit the user with the unrestricted capability to stream, preventing webcam celebrities like JenniCam from ending due to operation costs (B. Smith 2005).

Organized streamers may be very different from each other, but from the outside, the experience of witnessing these streams is very similar to the centre area of a city, where people perform, paint, sketch, etc. And alike city centre areas, it helps to gather small groups of people around the performers, creating small and, sometimes, temporary virtual communities.

5c -Disorganized Streamers

These streamers are the hardest to determine; they can be adults having a party, who decide it is more fun to share their experience, families testing *The Playroom* for the first time and trying to figure out the broadcast feature, or just people who are bored and sit in front of the game until someone shows up.

Disorganized streamers are unpredictable beings who decided they want to have fun with this new service. Many of these are not unlike chat game websites such as Omegle or Chatroulette, where viewers bounce from person to person until they find an interesting individual to talk to, or who responds to their chat request.

The problem is these streams can sometimes get out of hand. Chat games contain a balancing factor between the identities of both users, which are both anonymous in the beginning, until they find someone who they feel comfortable sharing their video stream (Damasceno 2013). Unlike these games, in *The Playroom* the user consents to exposing himself often submitting to an anonymous audience, who may pressure the user into their bidding.

There are cases where users play a game with the audience, where the increase in viewers becomes the achievement. This can instigate a power relation between the streamer and the audience (Kreps 2010), and the streamer may resort to outrageous tasks, including exhibitionism to increase their viewership. It is not uncommon for streamers to accede to requests from the audience whenever a goal number of viewers is reached.

As streams are not officially recorded⁶, inappropriate behaviours often result in ephemeral encounters, peaking the number of followers, before quickly being banned and deleted from the streaming service. Banned users can permanently leave *The Playroom*, whilst others might return to stream again, and as I witnessed, a few are even recognized within the game's Subreddit community. Community members would mention when these users created new accounts to stream again with titles for threads such as "USERNAME is back!"

Coming back to the question of immaterial labour (Dyer-Witheford and de Peuter 2009, 3), what we presence with the *disorganized streamers* is a transformation of the game, turning the experience of streaming as an entertaining event for different types of people. While all the parties involved may benefit from the fact that streaming services have a low entry barrier and require little maintenance, services may benefit more from these streamers.

This is especially because these users get uneven and sometimes absurd ratings compared to other serious streamers, and although some are banned, many experience in a group a type of social game, an expansion of their parties from their living room across the world. Guest in these parties may come home from these experiences wanting to repeat them, creating the need for a PlayStation Camera or a PS4 itself.

While these experiences might benefit Sony or streaming services the most, *organized streamers* may benefit the streamers more. By not actually needing to engage with *The Playroom*, opting for stationary cameras or using it only to receive feedback from users, businesses are capable of easily advertising and improving themselves without even creating any extra effort.

The purpose of this chapter was to demonstrate and compare the qualities of the streams in *The Playroom*. Analysing the diversity of the streams allows us to see what types of streamers exist, how they are different from each other and what do these differences mean. I demonstrated the main points for why users are broadcasting: personal pleasure, economic gains or recognition.

Finally, this chapter detailed both positive and negative outcomes associated with the different types of streaming practices. *Disorganized streamers* present variable social qualities, and even valid social entertainment purposes, but also a liability for the network due to the unpredictability of their streams. *Organized streamers* on the other hand showed how streaming can

⁶ To record streams users on Ustream must accept the feature on the PlayStation Share Menu.

be helpful to cater to specific niche groups, but also to improve business services, effectively augmenting them with no other effort besides installing the console.

Streamers also benefitted from the feedback of audiences, which stumble upon their streams by curiosity or on purpose. Audiences that help to improve or worsen *The Playroom* with their participation, by either being benign contributors, internet trolls or social engineers. These audiences will be the next topic of discussion.

6 - Fans, Non-Fans, Communities and Interaction

Whether temporary or permanent, the shows in *The Playroom* would be nothing without the users that engage with them. Some of these users form faithful fan bases, while others may be channel surfing the app or browsing through the Ustream website. These groups play a large role in the perseverance of these streaming channels, giving them motivation to continue streaming and keeping their shows alive. For other streamers, fans are an integral part of the experience; as said by Kinho & Mih (2015) on why they stream: “We’re here to make friends.”

When it comes to *organized streamers*, the communities are generally grouped up in the followers, who can receive email notifications as streams start. A select few audiences will also follow the extended groups on other social networks, creating a small fan-base. Streamers may interact with viewers on a consistent basis and recognize them, as seen in Kinho & Mih, SidecarAngel (2015), and many others. Additionally, a part of the viewers in these streams are “regulars”, being frequently greeted by the streamers when they come to the streams. This behaviour is at times rewarded by streamers conducting small scale prizes and giveaways for fans.

In terms of actual interaction with the user, there is very little that viewers of *The Playroom* can do besides commenting, liking and sharing. One way users can contribute with their opinions is choosing one of the interaction options available on the PS4 app, or by typing directly into the chat: *Cool*, *Creative*, *Funny* or *Cute*. These interactions will prompt a noise with a flying virtual icon equivalent to one of the options to swoop past the streamer. Icons correspond to a star for *Cool*, a lightbulb for *Creative*, a smiley for *Funny* and a heart for *Cute*.

Another form of interaction is answering polls, which uses the same mechanisms, allowing users to choose an option or type it in. However, polls are uncommon in the streams,

perhaps due to the amount of effort necessary to use organize them in the app, or because streamers prefer to keep their hands free while streaming.

One interesting aspect of interactions is that all of them are positive. The only way to have a negative interaction on a stream is for users to type insults themselves. Speaking of which, negative interactions are not uncommon. Although videogame audiences may have diversified (Jones and Thiruvathukal 2012, 30), it is not uncommon to see rude, perverse or misogynistic comments in the streams.

Mechanisms to solve these problems are usually in place with the tools provided by streaming websites, both which can block individual users. In addition, Twitch also allows streamers to block selected words in their comment repertoire, and the stream will replace them for the symbol “***”. Ustream on the other hand, allows streamers to delegate moderating power to other users, allowing the streamer to empower the audience; a good feature, but requires trustworthy and reliably present spectators.

It can be a nuisance for the user to stop a show for stream management, making it easier for most streamers ignore offensive comments or to let viewers leave or to work with someone as a permanent moderator. Another strategy, which has been previously reported in other sociological studies (Bleakley 2014), is for the streamer to let community peer pressure deal with these trolls; as viewers with an affinity for the broadcaster will often defend him from the individual who is ruining the show and try to bully offenders out of the chat themselves.

6a - /r/ThePlayroom

Although amateur groups seem disorganized and composed of random streamers and onlookers, the recorded history of the service through YouTube videos and a subreddit (Reddit 2014) reveal that even before Twitch.tv closed its doors, there were groups organizing to watch streams.

The /r/ThePlayroom subreddit is roughly organized, many of the members engage with the streamers individually, and afterwards discuss their experiences with the community (Reddit 2014). Viewers are often sharing information on interesting streams that occur through the day on Twitch and Ustream. Although lately the strong bias is for topics involving nudity and exposure, originally the streams followed other comedic figures.

As an organized group, they have guidelines for sharing content, when and what to share, and discussions on the allowance of exposing users' dignity. The forum moderators created guidelines; describing what the community stands for, what users can post, and what sort of information should be left outside (giovannixxx, Reminder: Posting of pictures from external sites not tied to TPR are not allowed. 2015). Currently, any links to sites outside of Reddit that are not related to streams are banned, along with any reference to the original identity of the streamer. Other uses of the board include news regarding the game, streaming advice, recording other user's streams and spreading the news about streams.

Initially, streams were discussed directly as they came along, but users related the high viewership and exposure on the community to spikes in the amount of viewers of a stream, bringing the attention of moderators which would soon turn it off. This, together with the suspicion that moderators know about the Subreddit, has led to the current agreement between users to only discuss streams after they go offline. Some users have demonstrated irritation towards the "Internet Trolls" that disobey these rules (Macroxxpolo 2015). Other discussions asked for *The Playroom* to include an adult website section, to host content from the game (super354 2014).

Most interesting however, is the debate between users on the issue of ethics regarding the posting of pictures. These range from the necessary authorization of users: whether users exposing themselves are at fault for their acts vs. whether viewers are privileged to be watching shows and should respect their streamers mutually. Although many streamers agree on these guidelines for viewing and respecting "protecting" the streamers, there is no form of securing their compliance. These issues seem to have made a selective few resort to a new private board to share content (giovannixxx, On the topic of a private sub yet again 2015).

Interesting enough, I found users of the board who also seemed to be streamers, offering voyeuristic opportunities to viewers. Exhibitionists can even be local celebrities amongst viewers, returning every now and then for fans before being banned. These are referred with a certain excitement among the users, who seem to know them from previous streams.

From observing these communities, we can perceive a relationship that is fundamentally different from television watching, communicating continuously with the hosts, creating bonds and even establishing rules of conduct. These relationships contribute by giving us an understanding of how audiences support streamers, but also how they perceive streams as more than individual shows, as an entertainment activity in itself, just like chat game websites.

7- Streaming and additional challenges

To build content in *The Playroom*, streamers face many challenges. These occur due to the novelty of streaming live, lack of personal experience or due to console restrictions, audio-visual issues and website visibility.

First, unlike videogame streaming, users need to create their own content and cannot base themselves off reactions to a game. Live streaming also differs from recorded content due to the lack of post-production, making the presentation more organic and improvised. Streamers may have an idea of what to present, but interaction with the audience may change the show.

Live-streaming is also different to recording almost opposite way that theatre was to television. As Philip Ausländer (2008) demonstrates, early television shows were highly reminiscent of theatre performance because of the recording restrictions of that time. Many shows from the first age of television were live and limited to one camera with restricted movements along a six-axis, resulting in cameras shooting from straight angles outside of the performance area (20).

As television became more sophisticated with recorded content, more complex angles such as reverse shots made the television discourse shift away from theatre and into film-like spectacles, altering both the form that it is done and its media identity (Uricchio 1998, Ausländer 2008).

Likewise *The Playroom* suffers its console-based constraints. Despite having the full technological capacity of a computer, it is not a machine that allows tinkering for advanced streaming. For example, the PlayStation Camera's proprietary cable of 2 meters length, forces many of the streams to be as close as possible to the console or to find third-party extensions. The rectangular shape of the camera allows for easy positioning on flat surfaces, but has no movement, facing steady, uncontrolled angles⁷ that may require a stand to adjust.

Users engage with many creative angles: streaming talk-shows will have their camera focused on the host, while skill based shows might have a first person angle to demonstrate the task at hand. Some place their cameras in front of their television to stream vintage games, shows or films. Others put cameras on high places, like surveillance cams in small businesses.

⁷ The Microsoft Kinect Camera, on the other hand, can self-adjust its positioning.

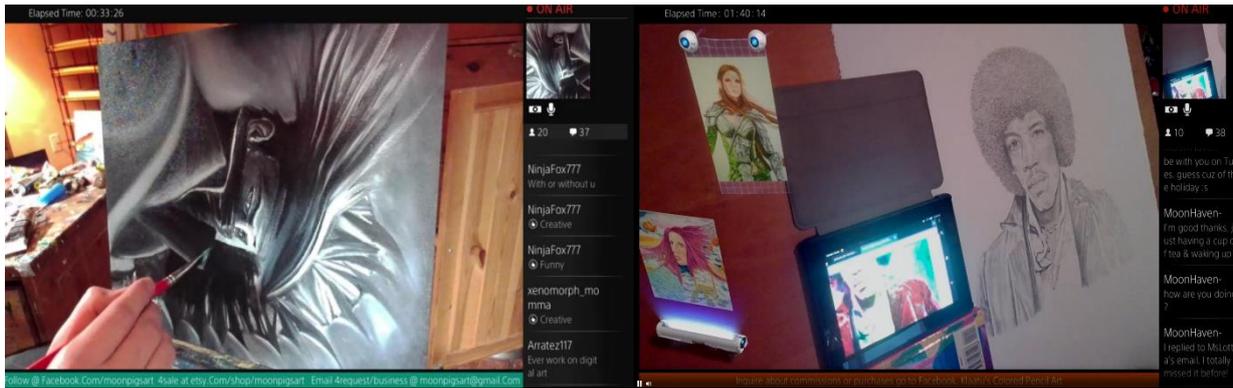


Figure 10 – Screenshots of different streams; artists often stream in similar styles remediating each other or other media platforms. (MoonPigsART 2015, Klaatu50 2015)

Streamers might take the camera into their own hands; Gamedungeon (2015), for example, will move his camera to different angles to please the player, from one CRT television to another to change consoles, or to demonstrate his “Gamer Dungeon”⁸. In Jase2pointkilo’s (2015) horticulture show, cameras are not really fixed and he often takes the console to different parts of his house. One user, even manages to stream his fishing adventures from a boat (Gonefishing 2015).

Many streams may seem similar as they are products of “remediation” a phenomenon of new media replicating elements of other forms of media (Ausländer 2008, 6). This in particular seems to be common in between streams of *The Playroom*, with many of the same subject taking similar formats (Figure 10).

Video quality is another issue, with the camera’s video quality degrading extensively in dark rooms. A few *organized streamers* seem to be aware of this, putting a significant amount of light into their performance area, while others ignore these limitations or put their emphasis in creative lighting when streaming in the dark (Figure 11). A few may use effects, such as adding smoke, to make the ambient more interesting. But usually the main effects are posters with information on the topics discussed or on the users’ websites. Moreover, most of the users I witnessed stuck to the basics; content is everything.

Another constraint comes to sound quality; witnessed in the many of the musician streams. As sound needs to be transmitted from a device to the PlayStation Camera microphone, the quality of recordings is quite low compared to a professional stream. These are limitations that would be easily bypassed in a PC, but the console qualities of the PlayStation impede this, maybe for similar copyright reasons to sharing non PS4-made videos. This is also a questionable

⁸ Gamer Dungeon seems like a vintage game streaming show, but also serves to sell the collections of the streamer.

feature to lack, as plugging a guitar or any instrument and sound source into the PS4 could be feasibly achieved as it happens in games like *Rocksmith* (Ubisoft San Francisco 2012).

Sound problems were also faced by other streamers in pc platforms: in Shamma, et al's (2009, 181) study of online DJs, a similar case occurred with computer-based DJs, as the mixing deck and the microphone cables needed to be changed manually every time the user wanted to communicate with the viewers, allowing for the highest quality of sound to be chosen for every process. Streamers in *The Playroom* don't have the privilege of changing their sound source, relying instead on turning off sound to periodically communicate or ignoring the comments.⁹

Finally, in terms of streaming, many of the limitations are from the customization features available only from the website of the streaming service, such as privacy settings, user controls or changing the title of the stream. This makes it so much easier to stream when users have at least one moderator. Kinho & Mih (2015) for example, revealed to me they had 4 moderators to control impolite users.

As shown, *The Playroom* delivers an opportunity for many who would feel computers are still far too complex machines. Streamers will even admit to this: “*Why stream now? Why not? It was easier, I'm not that much of a PC guy*” (GameDungeon 2015). Streamers such as *The Spartan Show* (2015) will also demonstrate why moving on to other platforms make sense: “The Playroom is a great place to start webcasting and it's continuing to grow and becoming more versatile. BUT! We find that streaming from a PC doesn't limit us and we're confident that it will continue to help us bring a more quality result.”

As seen in the advertisement of *The Playroom* (Doucet 2014), music and performance were meant to be the big differentials of the *AR Studio* update. But as a device, *The Playroom* is



Figure 11 – Streams suffer from low quality at night, but streamers compensate with effects.

⁹ Very rarely a streamer responds to in his own comment section, avoiding to turn off the sound

still limited in many ways to its initial media identity, of a videogame console tech demo, withholding the real potential of the PlayStation 4 as a simulation of a live stage.

At the same time, it presents an easy enough system for users to engage in streaming, creating their own ways around these problems, and redefining how streams should be done, even copying this from other streamers. These challenges help to paint the picture between the initial identity of the device, and the one that is transformed by its users through appropriation.

8 - Conclusion

Over the course of this thesis, I have looked into the different structures of *The Playroom*, taking its initial media identity as a starting point into analysing historical evolutions from the industry to the game. I have as well used affordance analysis to connect these developments to issues of participatory culture, furthering the definition of its media identity.

What I have found is a transformation in the use of a platform, an appropriation by users that has shifted gradually the media identity of a device, from a game testing platform into a live-streaming and multiple-use platform. The reason for this appropriation is debatable, with a combination of curiosity and the general user practices of sharing as strong contenders for the emergence of these streams.

Moreover, this appropriation gathers influence from many precursors to live-streaming in a console, mainly from computer efforts of lifelogging, video streaming, video sharing, chat gaming and television; often remediating content from these media devices and from each other in the attempt to appeal to new users (Ausländer 2008).

In spite of its misuse, Sony positively supported this appropriation through upgrades to make it streaming-friendly, even implementing design efforts to motivate users to stream content when it could have simply blocked the access to it. Further revealed was that while its design easily enabled users to stream, it created specific restrictions towards how these streams can be conducted. In turn, these restrictions did not prevent misuse and were most likely projected at disabling exclusive rights infringement.

In addition, as a “Trojan Horse” in our living rooms, the PS4 game allows anyone to stream worldwide to the currently fast-growing streaming services. Nevertheless, the drawback

was a homogenization of the methods used to stream, which are compensated by innovative ways of using the features available to the users.

Furthermore, by putting into the spotlight how the streams are organized, it was possible to identify key specific players and their uses. As a result, this led me to small virtual communities where people share hobbies, demonstrate skills, work or simply just want to have fun watching TV with others.

Additionally, *organized streamers* demonstrated labour practices that may become common in a near future, with augmented workplaces serving as reality shows, providing behind-the-scenes action into a studio and allowing users to contribute to content creation through feedback.

Bearing in mind the most troubling aspects of *The Playroom*, misuses by streamers are still an issue to be dealt with. This becomes especially evident considering the global reach of the streams and the further upgrades to more popular platforms like Youtube. Nevertheless, the positive uses of the platform prove its potential, and any control should be done so in ways that do not curb other user's freedoms.

Incidentally, a discovery of this study was that occurrences with subversive behaviour were not limited to accidents of the PS4's sharing capabilities (Lohman 2014, 27). Instead, they were the consequence of streamer-audience interaction, of social-engineering and of power relations between these two groups, happening occasionally and repeatedly by some users in *The Playroom*. As said by Henry Jenkins: "One person's diversity, no doubt, is another person's anarchy" (2006, 221).

With this in mind, even the analysis of the group on Reddit provides an insightful perspective of how watching the game for unusual streams has become an activity of its own, in a way *The Playroom* has also adapted the capability of being a social game (Juul 2012, 121). Moreover, the Subreddit's many discussions and suggestions demonstrate an interest from some streamers and users for more reserved spaces with more user freedom to curb the misuse of the platform.

Furthermore, an issue that has come forth within this analysis was the lack of true privacy in streaming websites. While I was not able to analyse the cost of keeping streams and

this market flowing, the cost of social streaming seems to be tied to the ability for any stream to make a profit, and thus removes audience selectivity.

As it has been seen, *The Playroom* exhibits a historical and conceptual relevance that allows us to question it through a diverse range of theories. In addition, its dependency on a console and on the reaction of a spectator community, however, impedes me from calling it a *theoretical console* (Verhoeff 2009). Instead, the game adds to the “consoleness” of the PS4, making it a unique device amongst its peers.

Because the method used handled specifically theoretical aspects of the *dispositif*, questioning its socio-cultural practices and design decisions, the results of this research welcome further explorations relating to the creation of live content in the platform. Additional insights using different approaches may be able to enlighten us on the role of user responsibilities in live-streaming; on the merits or faults of using real identities opposed to screen names; or on tackling cultural sensitivities in global audiences.

Finally, what can be concluded from analysing the media identity of *The Playroom* is that even through its homogenizing and restrictive nature, it provides a truly unique experience of social gathering between strangers that has so far not succeeded in becoming popular anywhere else. In its baby steps towards a new form of television, its inventor has surprisingly been the user.

Much of modern technology is really the technology of social interaction: it is the technology of trust and emotional bonds. But neither social interaction nor trust were designed into the technology or even thought through: they came about through happenstance, through the accidental byproducts of deployment. To the technologist, the technology provides a means of communication; for us, however, it provides a means for social interaction.

(Norman 2004)

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