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COMMODIFICATION OF AGENCY: SURPLUS VALUE CREATION IN TWITCH

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Katılımın Metalaşması: Twitch'de Artı Değer Üretimi

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1) Live streaming
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PREFACE

I completed this thesis during a tumultuous 2020 where the global pandemic had started to cause chagrin. During those days I was lucky enough to stay home and work on my dissertation while keeping in touch with family, friends and colleagues through social media. Like many others, to spend time I watched hours and hours of YouTube, Twitch and Netflix, listened to podcasts on Spotify and played online games. As a result of this increased devotion by countless people towards these services, tech companies' stock prices skyrocketed as well as the personal wealth of their CEOs and founders, while many found themselves struggling to get by.

I wholeheartedly accept that social media platforms offer new ways for people to express themselves, come together with like-minded people and give voice to silenced ones. On the other hand, they can stifle meaningful conversation, spread fake news and even radicalize people on a daily basis. As the digital platforms have become ambient services that we use and depend on mundanely we tend to focus on these latter issues as inevitable while putting the blame on an idea of parties or people with malicious intent.

As the arbiters of speech, entertainment, culture and even politics which influence millions, I believe that the tech companies have a great responsibility to develop better communicational environments that does not put the main focus on generating profit. This dissertation chronicles those commodification efforts that are expertly ingrained in the core workings of a digital platform: Twitch.

While this dissertation is not directly linked to issues like moderation, it is an exercise of reminding us that the social media platforms are not "found" objects but consciously and painstakingly designed enterprises that gently groom every other actor that it comes into contact with to extract profit. It aims to underline the need for reflection on what shapes our daily lives, culture and economy.

Before we begin, I would like to thank everyone at BILGI's Faculty of Communication for their friendship and insightful assistance on my academic

journey, my advisor Halil Hoca for his continued wisdom and guidance, my parents and sister for all their support and my partner Melis for just about everything in my life.

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ABBREVIATIONS

API	Application programming interface
AWS	Amazon Web Services
DLC	Downloadable content
F2P	Free-to-play
KPI	Key performance indicator
OBS	Open Broadcaster Software
PPP	Pay-per-participation
PPV	Pay-per-view
SAOE	Small acts of engagement
SVOD	Subscription video-on-demand
UI	User interface
VOD	Video-on-demand

ABSTRACT

Through the control of key digital platforms and by harvesting data on large populations, technology companies have become the biggest players in late capitalism. Live streaming platforms where people mostly stream their video game screens are operated by these companies as spaces to increase user engagement which is in turn transformed into surplus value. Twitch, the most popular live streaming platform, offers ever-evolving engagement methods to capture the attention of masses to be commodified by Amazon, its parent company.

Accordingly, the first chapter of this thesis provides a discussion on the evolution of value creation methods in capitalism. Tracing this to valorization of information and the subsequent discovery of surplus data generation by Silicon Valley companies. The following chapter delivers a discussion about why people are so keen on watching others play games and how digital platforms were able to ride upon the urge of watching. Final chapter turns the spotlight directly to Twitch and discuss the surplus data creation in terms of passive watching activities and engagement with the platform through an observation of site's features via Grounded Theory Approach that is informed by platform studies.

Two categories describe what this thesis calls *commodification of agency* in Twitch: *Engagement* and *deep engagement*. *Commodification of agency* is a modern incarnation of capital accumulation based on information that is gathered in result of activities related to watching and various levels of online engagement. It can also be applied to discuss political economy of other social media sites and platforms by particularly concentrating on instances of user or other actors' engagement with the platform.

Keywords: Live streaming, digital platforms, political economy, video games, twitch.tv

ÖZET

Teknoloji şirketleri kontrol ettikleri dijital platformlar ile büyük topluluklar hakkında veri toplayarak geç kapitalizmin en önemli oyuncuları haline geldiler. Kullanıcıların genelde video oyun görüntülerini yayınladıkları canlı yayın ("live streaming") platformları bu şirketler tarafından etkileşimin arttırıldığı ve bunun artı değere dönüştürüldüğü mekanlar olarak yönetilmekte. En popüler canlı yayın platformu olan Twitch'in devamlı değişen etkileşim metotları kitlelerin dikkatlerini diri tutmasının yanında bağlı olduğu ana şirket Amazon tarafından metalaştırılıyor.

Bu doğrultuda, bu tezin ilk bölümü kapitalizmdeki değer üretme metotlarının evrimine değiniyor. Bu, bilginin değerlenmesi ve sonrasında Silikon Vadisi şirketleri tarafından artı veri üretiminin keşfedilmesi ve geliştirilmesi bağlamında tartışılıyor. Sonraki bölümdeyse, insanların neden başkalarını oyun oynarken izlemekten keyif aldıkları ve dijital platformların bu içgüdüyü nasıl metalaştırdığı tartışılıyor. Sahne ışığının Twitch'e doğrultulduğu son bölüm bu dijital platformdaki pasif izleme pratikleri ve etkileşim üzerinden ortaya çıkan artı veri üretimine odaklanıyor. Bunu da *platform studies* yaklaşımına dayanan bir *Grounded Theory Approach* çalışmasıyla ortaya koyuyor.

Bu tezde *katılımın metalaşması* olarak adlandırılan durum Twitch'de iki farklı kategori üzerinden belirdi: *angajman* ve *derin angajman*. Katılımın metalaşması izleme ve çevrimiçi angajman faaliyetlerine dayanan modern bir sermaye birikimi yöntemidir. Bu okuma, kullanıcıların ya da diğer aktörlerin platformla olan angajmanları dikkate alınarak diğer sosyal medya platformlarına da uygulanabilir.

Anahtar Kelimeler: İnternetten canlı yayın, dijital platformlar, ekonomi politik, video oyunları, twitch.tv

INTRODUCTION

In the late 20th century, a new form of entertainment, video gaming, has become an essential part of global culture. Video games were enjoyed by millions around the world. Shared arcade machines gave way to various home video game consoles and games were played on personal computers and subsequently on mobile phones. Concurrent to that, after so many developments in broadcasting from cable TV to online on-demand services, there came a new form of entertainment called live streaming.

Live streaming is an offspring of gaming culture since its popularity sprouted from people streaming their gaming sessions in the late 2000s. Although as a technology it was viable to live stream for some time, it is the video gaming content that made this kind of broadcasting attractive for streamers and captivating for the viewers. With countless ways of playing the games and endless other ways of talking about playing the games there's virtually unlimited amount of content to be launched on dedicated platforms of live streaming.

Today, watching others play video games is becoming a mainstream activity. Millions of people are tuning in to the online streaming services like YouTube Gaming, Twitch (twitch.tv) and their Chinese counterpart, douyu.com. Since Twitch has been ranked 4th in peak US internet traffic, leaving web giants like Hulu, Facebook and Amazon behind in 2014 (Twitch, 2014) the live streaming of gaming content has proved that it is here to stay. Twitch's acquisition by Amazon for $970m in 2014 (Gittleson, 2014) and other tech giants like Microsoft and Facebook's attempts of becoming players in this field is a testament to that.

In 2020, amidst a global pandemic, Twitch has doubled total hours watched and average concurrent viewership compared to 2018 ("Streamlabs & Stream Hatchet Q3 2020 Live Streaming Industry Report," 2020). These are 4.7 billion hours and 2.15 million viewers respectively. In terms of individual streams, a milestone has been achieved when Ninja, twitch.tv's most popular streamer at the time, has attracted 628 K concurrent viewers in March 2018 when he invited rapper Drake to one of his regular Fortnite sessions (Tassi, 2018).

Looking at these impressive numbers it has been claimed that Twitch "has become more than just an entertainment medium; it is the home of the largest gaming community in history." (Churchill and Xu, 2016, p. 223) With millions flocking in to not just watch others play video games but also engage with others it is indeed a different media experience. It is an amalgamation of television and Internet culture that uses video gaming as the fuel. Internet's revered interaction capabilities is coupled with the joys of watching television and playing video games.

In the history of television, the programmers and marketers realized that there is a plethora of audiences instead of a homogenous one. On top of that, they've seen that they, themselves can conjure up new audiences if they've proliferated programming and offered niche content de-coupled from the constraints of weekly programming in the few available TV channels. Thus, the audience has been fragmented into "audiences" who are interested in different franchises or belonging to a certain age or socioeconomical group.

This was indeed an important step in capitalism's quest for the multiplication of methods of extraction of value which happened outside of the factories. New face of capitalism requires more knowledge about media usage and consumption habits. Digital platforms are ideal for the companies to collect such data. Additionally, they are built and developed with a mindset of creation of as much digital trace as possible which fundamentally effects cultural production and our media usage.

This is conformant with Deleuze and Guattari's approach which evaluates the world and the values imposed by the dominant system instead of evaluating a technical system as *a found object* in the manner of Kittler. In this light, to understand a type of technology, or in this case, a digital platform I've decided to, firstly, put forward an effort in unpacking of today's dominant structure and the cutting-edge ways of value creation.

Accordingly, the first chapter tries to answer the question of *how to situate live streaming platforms under modern capitalism?* To answer that, the chapter

starts off with a discussion of value creation and legacy exploitation methods. Then, I move on to discuss more recent ways of exploitation that is discovered with post-industrial capitalism where broadly two things become crucial: The storage of information and the establishment of a direct link between consumption and production. The chapter continues with a dissection on how tech companies expertly manage to benefit from this latest incarnation of value creation.

The second chapter goes on to discuss a primal issue by responding to the question, *why do we watch those who play?* In itself this is not a strictly mediatized phenomenon: whether watching people play backgammon, cats or dogs to play with each other or athletes competing to win a sports match we are mostly fascinated by watching others play. Similarly, Twitch offers an experience where we are watching people who play video games. To make sense of that the chapter has sections on game studies and television studies in relation to live streaming. It ends with a particular focus on why audiences enjoy watching live streams of gaming content on sites like Twitch.

After laying out how capitalism has reproduced profit maximization through extraction of information and our inherent desire of watching others play, we arrive to the 3rd chapter where I tackle with the question of *how exploitation works in Twitch?* In that chapter I directly grapple with Twitch as an extension of Amazon that collects precious information about a global audience of gamers. While doing that Twitch funnels the audiences' appetite for engagement and interactivity into commodified practices. Twitch also exploits other actors that it comes into contact with like game companies and 3rd party application developers by using its platform power. Hence the name of this thesis appears: *Commodification of agency*.

Overall, I argue that the emergence of live streaming platforms like Twitch is not just based on a desire to profit from this new type of entertainment. It is based on how big technology companies are employing our desire for entertainment and participation to move towards their goal of being the pioneers of late capitalism that is based on collection of data through the control of key digital platforms.

To attain that goal, amongst other ventures, technology companies are operating live streaming platforms as spaces of increasing user engagement which in turn is transformed into value for the parent company. Twitch, the most popular live streaming platform, offers ever-evolving engagement methods to capture the attention of masses to be directly or indirectly commodified by Amazon.

Here's a brief description of Twitch's history and a rundown of platform's workings: Founded in 2011 as an offspring of Justin.tv, a now-defunct *lifecasting* service, Twitch has identified a promising niche: gamecasting and video game competition (also known as e-sport). The idea of live streaming games has emerged in Justin.tv where people who were streaming their daily life decided to stream the video games that they played. Eventually game streaming channels has become the most popular channels on Justin.tv which resulted in the passage to a new service strictly focused on livestreaming of gaming content.

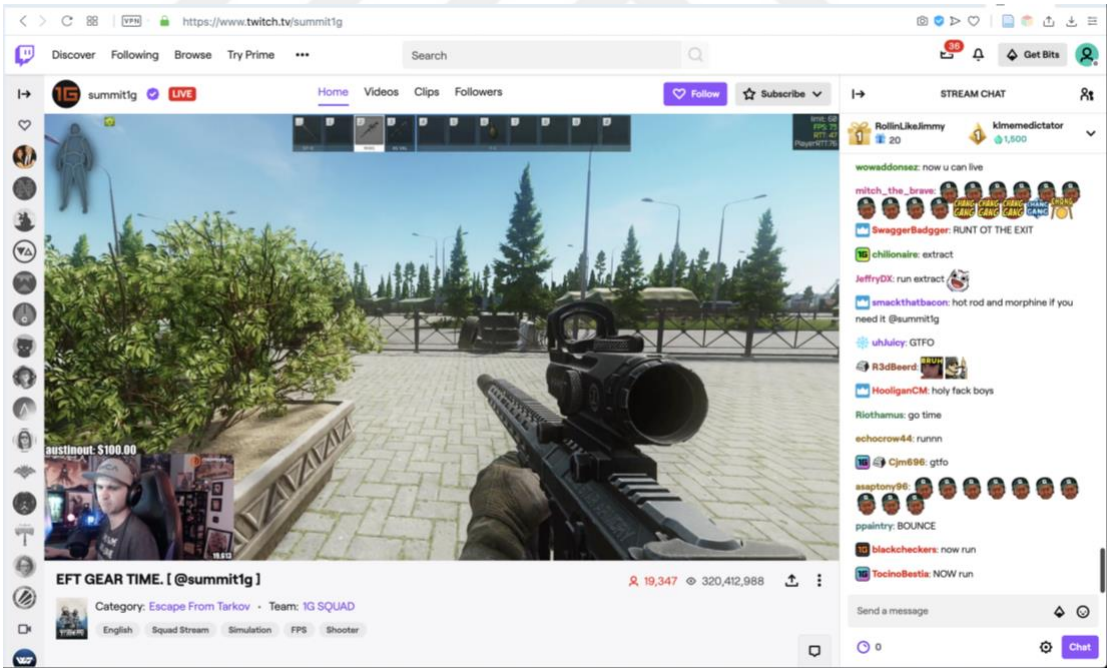

Figure 1 A screenshot from a Twitch stream

With the advent of broadband internet connection these platforms offer the possibility to live stream the video game screen that is played, accompanied by the voice commentary and the visual of the streamer. The ones who are watching the streams, *streamees*, on the other hand are interacting simultaneously both with the

streamer and fellow *streamees* via the chat function of these services. Bear in mind that live streaming is not the same as video on demand (VOD) which lets you play a pre-uploaded video on a platform such as YouTube, Vimeo or Dailymotion.

Live streaming's allure comes from "convergence of liveness (live broadcasting) and participatory culture (social interactions)" (Recktenwald et al., 2016). VODs have active comment threads too, but live streaming platforms' vernacular design feature of the chat function embedded on the right side of the screen is a clear statement of intent: *You're not here to just watch. You can be a* part *of this too.*

A novice *streamee* might at first have a hard time to make sense of what's going on in her screen. The game that's being played is supposed to be the main attraction but perhaps it's no more than a canvas for the streamer to put forward her skills in honey-talking the audience with jokes and insights just about *anything*. The members of the audience, i.e. *streamees* are instantly replying to whatever they're seeing/hearing on the screen, be it related to the videogame or the streamer.

Many high-profile streams on twitch.tv are not merely about playing one game for a certain amount of time. They're rituals revolved around celebrity culture and the promise of interaction. For the live streaming of gaming content audiences, the streamers are the big celebrities. Interacting with them is essentially a huge deal for the audiences. A typical live stream of a popular streamer like LIRIK might last anywhere between 3 to 8 hours. It is usually a mixture of casual chat and gameplay.

To make sense of this ever-evolving platform I wanted to unearth the origins of this phenomenon which takes its cues from broadcasting and the Internet. Twitch is not a platform where you solely login to *watch* something, it is a place of communion, cultural exchanges, digital engagement and monetary transaction. And most importantly, it offers a case study for discussing how and why the tech companies like Amazon and Facebook has become the most valuable companies in the world. In this sense, the platform policies or constantly changing and updated features of Twitch could not be separated from its parent company's capitalist accumulation logic which needs to establish more entry points into societies.

This thesis is tied to various fields of social sciences. Throughout the different chapters, you will see theoretical discussions on political economy and platform studies that makes up the main concerns of this thesis which is *the deployment of platform power in order to extract surplus value*. Media studies and television studies are also featured throughout the discussions because live streaming needs to be understood in terms of it being a digital broadcasting experience.

Furthermore, I wanted to point out to human agency as an inherent human quality that doesn't always have to be political or transformative which can be expressed online too. Therefore, as I wondered *how the audiences' need for participation are exploited by the platform capitalists,* I also introduced a theoretical discussion beginning with sociology and political science to particularly discuss theory of action and participation.

Throughout all these different fields I tried to debate the theories in relation to my object of study: Twitch. Consequently, in the third chapter, this multidisciplinary narrative culminates to a more empiric, site specific effort where I discuss various Twitch functionalities like Channel Points as tools developed not for the sake of entertainment but mostly for surplus value creation. Moreover, the chapter that focuses on exploitation in Twitch examine how 3rd party extension developers and game developers are groomed towards feeding Twitch with content and engagement data. When these actors enter into such a *deep engagement*, they help cement Twitch's position as the leader in live streaming and provide new data points for Amazon in terms of contact with young people and video gaming industry.

1. HOW TO SITUATE LIVE STREAMING PLATFORMS UNDER MODERN CAPITALISM?

I'm a consumer of media of all kinds. But that kind of media is a whole new segment that is very exciting. (Amazon's Jeff Bezos on "entering a new golden age of television")

That is what the wealthiest person in the world has said after attending a DOTA 2 e-sports event broadcasted on Twitch. ("Amazon's Jeff Bezos," 2015) This was of course, following his company, Amazon's acquisition of Twitch in 2014. Amazon, an e-commerce and a technology giant is one of the largest companies in the world in terms by market capitalization. A metric that is bound to the stock price rather than other factors such as net revenue, corporate debt, etc. Over the years as Amazon grew as a company, they invested in media industries by establishing a capacity for content creation and distribution.

Overall, 7 out of the 10 largest companies in the world in terms of market capitalization are technology companies: Microsoft, Apple, Amazon, Alphabet, Facebook, Alibaba, Tencent. They are experts in using information about large numbers of people and most of them are playing an integral part in how we receive information and acquire knowledge about the world. Their social media platforms are influential in how we perceive the world since we mainly get the news through them. Moreover, these companies are also increasing the role that they are playing in terms of ownership of infrastructures vital to the functioning of internet (*Internet Society 2019 Global Internet Report*, 2019).

The meteoric rise of Silicon Valley over the companies that manufacture stuff and their involvement in media requires a discussion of contemporary capitalism. Particularly, a debate on in what way capitalism creates value and how the companies found new ways of extracting more value out of already exploitative methods. The quest for the multiplication of methods of extraction of value started in factories when companies started to record the knowledge of how certain workers, managers were completing the tasks (Pasquinelli, 2014). The recording of

information to company databases was an important step towards a future where most valuable companies will be in the information and communication businesses.

Lyotard in 1979 foresaw that "[k]nowledge in the form of an informational commodity indispensable to productive power is already, and will continue to be, a major – perhaps the major – stake in the worldwide competition for power" (Lyotard, 1994). Then he proclaims that nation states will fight over the control of information just like they fought over territory, and access to and exploitation of resources and free/cheap labour. This has proved to be true. Nation states are conducting cyberwarfare and state-sponsored actors are hacking systems to acquire information.

But tech companies have found an ingenious way of acquiring knowledge without resorting to brute methods. They built and controlled digital networks where people around the world would join in voluntarily. They use these networks to swiftly identify resources when time, attention and care are scarce. This gives tech companies some power over nation states and make them more valuable than companies that manufacture or grow stuff.

Moulier-Boutang, on his conception of cognitive capitalism underlines the ever-increasing need of knowledge by these companies: "Like the giant Anteus, who could only recharge his strength by keeping his feet on the ground, cognitive capitalism, whose purpose is to produce value (and not commodities or use values), needs to multiply its points of contact with a society that is in motion, with living activity." (2012, pp. 108–109) Therefore, the latest face of capitalism requires more knowledge about media usage and consumption habits of large populations.

Digital platforms are ideal for this task because through them capitalist enterprises can collect data points about people's connections to other people, demographics, cultural consumption, etc. Moreover, platforms act as more than just providers of data. Social media platforms are built and developed with a mindset of creation of as much digital trace as possible. They push people into interacting more and cultivate environments where users would want to spend more time.

The subject of this thesis is live streaming platforms and Twitch with its parent company Amazon is situated at the very heart of 21st century capitalism. Thus, to discuss the phenomenon of live streaming it is best to first understand capitalism's transformation. This reasoning is conformant with Deleuze and Guattari's approach which evaluates the world and the values imposed by the dominant system. This is a system that is far from static but by following its crucial transformations, particularly in value creation, it crystallizes for us to make connections with new phenomena.

In this light, to understand a type of technology, or in this case, a digital platform we will be beginning with an effort to unpack the power dynamics that are going on in the dominant system. Prior to the emergence of tech companies as goliaths, the push for the creation of new methods for value extraction created television audiences and resulted in the growing of media conglomerates. These companies have waged endless battles to attract audiences' attention since it was through this attention that they were able to make profits.

Considering these, the task of this chapter is to first provide a definition of value creation in capitalist systems and how media industries developed surplus value, particularly through television programming (1.1). After laying out the transformations in value creation, the second section will concentrate on the ways in which digital technologies were employed to further capitalism. The second section begins with a discussion of Deleuze and Guattari's notion of desire which will give clues on how capitalism is at play in live streaming. To unpack how modern Silicon Valley companies are exploiting its users Zuboff's *Surveillance Capitalism* will be discussed in conjunction with a discussion of Deleuze's *Control Societies* article (1.2). Lastly, in order to show that the emergence of live streaming platforms fits with other developments in digital economy the section will end with a collection of other factors. The logic of attention grabbing of media and tech companies will be outlined along with the safe haven doctrine and the consolidation of the internet economy. These will be helpful in establishing the power and the rise of tech companies (1.3).

1.1. CAPITALISM AND COMMUNICATION

Observation of the live streaming platforms developed to expertly capture the attention is a daunting task. To achieve this, a meta understanding of what led to this moment in the history of capitalism and value extraction is needed. This section will first begin by laying out a general understanding of capitalist societies and Marx' definition of value (1.1.1). Then, we need to come to terms with how value creation is conceptualized in relation to media industries (1.1.2) and discuss how an updated understanding of value creation affected capitalist enterprises and the way the new communication technologies' altering of value extraction (1.1.3). Lastly, we need a discussion about time and temporality in capitalist societies in relation to attention (1.1.4).

1.1.1. Marx' Definition of Value

Capitalism is a class society where the capitalist class exploits the workers in order to accumulate more capital. The capitalist system is shaped by the logic of accumulation. Power relations and structures are dependent on this. The class relations are organized behind the ownership of means of production. The capitalists as the owners of means of production use others to produce products and generate surplus value. Both the products and the surplus value are not owned by the working class that actually produced it. These are owned by the capitalists. The workers get a wage in exchange for their labour which in most cases demonstrate the exploitation.

In this system workers are "merely a machine for the production of surplus value" and capitalists "merely a machine for the transformation of this surplus value into surplus capital" (Marx and Engels, 1978). In other words, the capitalists are trying to extract as much surplus product as possible to then transform this into surplus value. This creates an economic alienation because workers do not control the production process and own the products that they manufacture.

Alienation is a byproduct of accumulation logic that "structures the modern economy, politics, culture, private and everyday life, and the relationship of society

to nature" (Fuchs, 2020, p. 119). While capitalism creates deep asymmetries in power and wealth it is through the control of various fields of life that the system keeps its dominant position. In other words, the control of cultural and media spheres is critical for capitalist enterprises.

When it comes to communication companies, they exploit labour in various ways. Physical labour (e.g. miners who mine rare earth minerals to be used in TVs, mobile phones, etc. and workers who assemble them) and "mental/information/knowledge labour" (the software engineer at a streaming platform, call center agent at a cable subscription company, etc.) (Fuchs, 2020, p. 136). Communication companies can employ people oversees which allows them to maximize their profits by exploiting labour. The companies also rely on intellectual property rights to, for instance, buy rights of a TV series at a marginal cost and broadcast it elsewhere.

Communication corporations are active in various crucial fields like media production, distribution, e-commerce, IT services, cloud services, software and operating systems. Because of the centrality of these topics, they are always in contact with other parts of the economy and various institutions and governing bodies that regulate industries.

Moreover, most communication companies in West act in global scale where their services are used in many countries except China where the state exercise a heavy control and censorship over people's thoughts. The capital's quest of accumulating more value beam the companies to new territories therefore creating a direct link between globalization and communication companies which in turn advances development of new technologies.

After defining capitalism and creation of surplus value through exploitation of labour we've established various ways in which communication companies exist in capitalist societies. Now, to further explore contemporary capitalism a discussion of surplus value creation in media industries is needed. The next subsection's task is that.

1.1.2. Television Audiences and Advertisement Industry

A discussion about the creation of surplus value is media industries started with how television industry was able to sell audiences' attention time. Jhally and Livant, (1986) in their seminal work argued that the commodity generated by the media industries was neither the medium nor the content. The way successful television people made fortunes was not through selling of content to the audiences but by casting and selling the audiences to the advertisement agencies.

While the content on the TV is produced by the media companies, "the commodity audience-time is produced by both the networks and the audience" (1986, p. 131). The commodity (i.e. attention time) that the media industries are selling to the advertisers include the labour of the television viewers. In this regard, the surplus value is created through the involvement of the audiences.

Therefore, watching television becomes a form of labour since, for instance, when audiences choose a series over to other series and watch the advertisements, or, when they watch TV instead of enjoying a public park, they manufacture a surplus value which is then capitalized by media conglomerates. According to Jhally and Livant, the audience is feeling that they are consuming "free content" and be at ease of watching advertisements. On the other hand, the network sells the attention time of the audience which is manufactured in conjunction with audiences to the advertisers. By this transaction, the network covers the production costs of the "free content" and, additionally, make a profit.

To talk about the surplus value extracted from users in social media platforms Celis Bueno (2017) goes over Jonathan Beller's work (2006). By discussing Google's search engine, Beller shows how Silicon Valley generate profit by appropriation of users' attention. As in the television example, web users are shown advertisements when they use "free-to-use" Google services. The additional point here is the company's technical possibilities which makes it possible to create "personalized blocs of attention" (2006, p. 234) realized through the personal information that the company collects. These blocs are then traded on Google's

auction market where highest paying companies can buy better positions in accessing the attention-time of highly personalized audiences.

As discussed through the television industry's usage of attention time, advertising founded media include commercial TV channels such as CBS and NBC in US and free-to-grab newspapers like Metro or The Evening Standard in UK. As they are not sold for a price, these media items are not commodities. Broadly speaking, Fuchs (2020, p. 141) also include online media like Facebook and Twitter to this list while making the point that digital advertising is different from the advertising in legacy media because it targets users individually. Silicon Valley companies constantly monitor individual users' online behaviors and then show them advertisements. Furthermore, "digital advertising […] differs from traditional broadcast and newspaper ads, in that it targets users individually" and "the audiences act as prosumers (producing consumers of information) who produce social relations and user-generated content" (2020, p. 142).

It is certain that these companies that offer free to access media are advertisement-funded media. But their high market valuation is not only tied to the selling of attention to advertisers. These companies are valuable because they have extensive knowledge about people's habits and connections and about flows of production and consumption. Thus, these are not only advertisement-funded media but companies that are highly evaluated because of the extensive knowledge that they possess and will continue to possess because they own platforms and services. So, they are not only valuable for the fact that they can get our attention but when we pay attention to these services there's also the data exhaust which can be useful to predictive analysis.

Although these contributions are vital it is possible to find faults in such approaches that only concentrate on the exchange between access to audience attention provided by media companies and money paid for by the advertisers. There is a need to re-evaluate the production of surplus value of these approaches that still eternalize the category of labour and value as external to history. Therefore, these thinkers who took issue with the attention time in media only dwelled on

attention as something that is used to exploit people and this approach misses a greater discussion about modern capitalism's value creation.

1.1.3. Changes in Value Creation / Deconstruction of The Law of Value

In the second half of the 20th century *value* has been transformed and information is now an important part of it. As information gained value, production of surplus value moved out of the factories into all aspects of everyday life. Celis Bueno maintains that "[o]ne of the most debated issues in Marx's labour theory of value is the claim that human labour alone is the source of all value" (2017, p. 130). By looking at the Italian Autonomist tradition he injects the concepts like Alquati's *valorization information* and Lazzarato's *immaterial labour*. Through these, it is possible to reevaluate Marx's labour theory of value in post-Fordist settings.

Toyotism constitutes a good case to this. In classic mass production schema of Fordism, the factories first produce cars by decreasing costs as much as possible and then offer them to the market in the hope of convincing the consumers with cheaper prices. Contrarily, Toyotism establishes a powerful and constant link between the consumption and the production. The production line is ready to be modified according to the consumers' choices of colors, accessories, etc. The intention of this logic is to have a flexible production line that is bound to the changing nature or intricacies of consumption.

With the advent of computers and various information and communication technologies, "the attention economy turns consumer's attention into a constant source of information about his or her consumption habits, preferences, trends, lifestyles and so on, which is then utilized to facilitate the constant adjustment of the production of commodities" (Celis Bueno, 2017, p. 46). Therefore, almost all the attention that we give to the Internet and social media platforms are used for establishing consumer patterns and reshaping the production and/or distribution processes.

Netflix is a good example to this. The video streaming giant is boasting for some time that it is a "data-driven" company. By logging all the subscriber activities as billions of data events, the company is creating analytics for executives and product managers to take decisions. In 2016, they made the now banal but then courageous decision of investing more to original content by looking into various statistics of Netflix audiences.

Similarly, content managers are using data to decide about what content to purchase. For instance, they can make informed decisions about how a series produced by a small company would perform globally on Netflix. They do that by being able to identify ever-evolving "niche audiences". Moreover, software engineers and designers develop the Netflix interface by looking at the data about subscriber interaction with the platform. This data is also used by the algorithm engineers who develop the recommendation systems for the Netflix homepage which according to Netflix, more than %80 of content is being consumed (*Delivering High Quality Analytics at Netflix*, 2017).

This example proves that attention is not a form of labour where the audience is exploited while they are watching the advertisements shown to them. The value creation is done on multiple levels. The valorization of information that is at play shows the invalidity of an orthodox Marxist understanding of human labour alone as the source of all value. Here, what creates value is small things like hovering the mouse over a thumbnail, adding a product to shopping cart and then decide to not complete the purchase, reading a comparison article about gaming consoles, etc. Our digital movements are recorded through cookies, temporary files, logfiles and various storable choices of platforms.

By using such data Silicon Valley companies improve user interface and the layout design. They also conduct quality control, performance updates and develop various revenue schemes. Thus, the attention economy generated by the Silicon Valley companies indicate a system that generates value by interlinking the spheres of consumption and production. Hence, while the digital platforms blur the

conceptual distinction between labour time and leisure time they also turn “all human activity into a potential source of surplus value” (Celis Bueno, 2017, p. 130).

Antonio Negri has called this “deconstruction of the law of value” (Negri, 1995) and argued that the changes brought by post-industrial labour, particularly the cognitive and the immaterial dimensions of it, have created a crisis of the measurability of value. The near-impossible task of measuring information surfaced the need of re-evaluating Marx’s definition of exploitation. The linking of information and capital changed the nature of exploitation that was hitherto happening inside the factory walls.

Pasquinelli in his reading of ‘big data’ practices through the lens of Italian Operaismo found that Alquati’s notion of valorizing information bridges the gap between Marxist notion of living labour and the definition of information in cybernetics. Therefore, the metadata that has been exhausted by the usage of digital platforms are “used for: 1) measuring the value of social relations; 2) improving the design of machines and machinic intelligence; and 3) monitoring and forecasting mass behaviours.” (Pasquinelli, 2014, p. 15) Indeed, all three of these points are provided by live streaming platforms to their parent companies.

To sum it up, creating surplus value while watching is not just about labour. This is “a concrete power apparatus aimed at the reproduction of capitalist social relations” (Celis Bueno, 2017, p. 130). These capitalist social relations keep defining the modern life. From the gadgets that we use to the homes that we’re living, conglomerates want us to create as much data as possible. Amazon with various home appliances to a movie production studio and music streaming services is one of the foremost collectors of data globally. From Internet Movie Database (IMDB) to Goodreads, another database where users can create, compile, rate and review books almost all of the subbranches or brands of the company is contributing to this huge trove.

1.1.4. Stiegler's Notion of Time

Time has been considered crucial in capitalism since capitalists are trying to accumulate more capital in a given time. The mantras like *time is money* and *my time is valuable* are all indicating the production of surplus value in a given time. In relation to media, attention economy is defined by the limits of human attention capacity. There is a presumed asymmetrical relationship between temporality of ceaseless informational flows and the temporality of the subject that attempts to follow the content flowing through various media.

Franco "Bifo" Berardi (2009) dwells on the temporality of attention economy and argues that while cyber-time is accelerating at great speeds human time is by definition finite. For Celis Bueno the explanation given by Berardi fails because it has a transhistorical and universal understanding of the notion of human time. To deliberate on how the notion of time is needed to be reconsidered in light of capital dominating our time beyond factory walls, it is useful to draw on Bernard Stiegler's argument that there is no human existence that is not formed by technical objects.

Stiegler in his re-reading of phenomenological tradition asserts that our experience of time is bound up with technological objects that we've developed and made part of our daily lives. Accordingly, how we perceive time is directly related to this relationship. To explain the human consciousness, he uses the term *cinematic consciousness*. He argues that cinema copied the structure of human consciousness by combining, pasting and montaging, different elements, events into a single temporal flux. According to him human consciousness acts just like the post-production stage of movie making by combining "the montage, the staging, the *realization*" (Stiegler, 2010a, p. 29).

Overall, Stiegler's understanding of time derives from his project of criticizing political and economical conditions of communication technologies. Building on the work of thinkers like Adorno and Horkheimer, Stiegler develops his concept of *program industry*, which is a key component of cultural industry. He maintains that, capitalism through program industry controls a shared time where

people watch the same series, evening news, etc. This results in the creation of the modern "consumer whose behaviour is standardised through the formatting and artificial manufacturing of his desires" (Stiegler, 2011). By discussing the emergence and rise of public relations, advertisement and marketing industries he argues that human consciousness adopted to the time of the temporal objects: "The contemporary cultural industries can thus make masses of viewers adopt the time of consumption of toothpaste, cold drink, shoes, cars, etc." (Stiegler, 2011).

Stiegler sees television as a natural continuation of cinema with an additional layer of intimacy that would allow the controlling of individual behavior which in turn is transformed into mass behavior. That transformation is happening "while the viewer, *isolated in front of his screen,* unlike the cinema, maintains the illusion of solitary entertainment" (Stiegler, 2011). The sense of "personalization" created by the capitalism is crucial for Stiegler who traces the loss of individuality on Gilbert Simondon's take about alienation of producers by technical machines. Simondon argues that industrial revolution has resulted in a major political challenge with the introduction of machinic tools in 19th century when the worker "lost his know-how and thus his very individuality, eventually finding himself reduced to the condition of a proletarian" (Stiegler, 2011).

Similarly, the massification of digital technologies industrializes temporality which in turn creates a "systematic loss of individuation" and "the control of consumption and social behaviour, including political behaviour" Therefore, whenever we scroll through the personalized feeds on social media, there is a "systematic loss of individuation" (Stiegler, 2011) instead of a personalized experience that will benefit both the individuals and the political sphere.

Overall, Stiegler's work is a seminal exercise in how information technologies are deployed for the presiding over of production and investment in the communication technologies that result in "the control of consumption and social behavior, including political behavior" (Stiegler, 2011). Therefore, his work constitutes a fine example of how controlling of individual desire through technical

objects is the modus operandi of late capitalism which eventually increases capitalist consumption.

1.1.5. Section Summary

Capitalism is the dominant mode of society since the 19th century. Capitalist societies are functioning on a class distinction. Capitalists as the owners of means of production use the working class to produce products and generate surplus value. Both the products and the surplus value are not owned by the working class that actually produces it. While accumulation logic inherent in capitalism creates deep asymmetries in power and wealth, it is through the control of politics, culture, private and everyday life that the system keeps its dominant position.

Creation of surplus value in media is done through exploitation of media professionals and workers in the manufacturing process but also through the selling of attention time of media consumers. While the content on the TV is produced by the media companies, the commodity of audience-time is produced by a collaboration of networks and the audience. Accordingly, TV networks like CBS and tech companies like Facebook and Google are considered as advertising founded media. But their high market valuation is not only tied to the selling of attention to advertisers.

These companies are valuable because they have extensive knowledge about people's habits and connections and about the flows of production and consumption. There is a need to re-evaluate the production of surplus value in the approaches that only concentrate on the exchange between access to audience attention provided by media companies and money paid for by the advertisers.

As information gained value, production of surplus value moved out of the factories into all aspects of everyday life. This brings us to this claim: Human labour alone is the source of all value in Marx's labour theory of value and value creation needs to be analyzed only by evaluating the human labour. In post-Fordist settings there is a powerful and constant link between the consumption and the production. Similarly, the advent of computers and various information and communication

technologies, turned consumer's attention into a constant source about his or her consumption habits, preferences.

This data is then used for establishing consumer patterns and reshaping the production and/or distribution processes and improve services. Hence, while the digital platforms blur the conceptual distinction between labour time and leisure time they also turn all human activity into a potential source of surplus value. These capitalist social relations keep defining the modern life. From the gadgets that we use to the entertainment services that we're consuming conglomerates want us to create as much data as possible.

Along with digital devices' data collection capabilities, technical objects have always been integral in our experience of time. In fact, Bernard Stiegler argues that there is no human existence that is not formed by technical objects. Through *program industry*, capitalism controls a shared time where people watch the same series, evening news, etc. Human consciousness adopted to the time of the temporal objects: "The contemporary cultural industries can thus make masses of viewers adopt the time of consumption of toothpaste, cold drink, shoes, cars, etc." (Stiegler, 2011).

1.2. DIGITAL CAPITALISM

Previous section gave a detailed look into how capitalism was able to develop new methods for accumulating value. The valorization of information put forward a transformation in media industries where the biggest conglomerates are now the tech companies. This is conformant with the transformation in post-industrial capitalism in which there is an uninterrupted two-way connection between consumption and production. *Program industries* engineered by the media companies has generated the modern "consumer whose behaviour is standardised through the formatting and artificial manufacturing of his desires" (Stiegler, 2011).

However, according to some, "Stiegler's political conclusions seem to reintroduce a normative judgement that presupposes a transhistorical understanding of the relation between desire, temporality and individuation." (Celis Bueno, 2017,

p. 131) Stiegler's exploration of negative effects of hyper attention assumes a universal loss of a specific form of temporality related to individual desire. As the dynamic face of post-industrial capitalism is difficult to decipher there is a need to go beyond a transhistorical definition of desire and introduce Deleuze and Guattari's social theory.

Therefore this section will be exploring various aspects of contemporary capitalism initially starting of from Deleuze & Guattari's notion of desire (1.2.1) then an attempt will be made to link this understanding of desire to live streaming platforms (1.2.2). The next subsection is a discussion of Deleuze's article on control societies where he laid out a new era of capitalism where the control is done through instant communication and computer codes (1.2.3). After establishing this latest era in the history of capitalism a more recent dissection of this logic is needed. Zuboff's conception of *Surveillance Capitalism* is very useful for the understanding of this era in capitalism (1.2.4). Zuboff's investigation of Silicon Valley giants' source of power created a discussion around their ability to influence people's decisions and choices (1.2.5). Finally, the section on capitalism will link all these to gaming, gaming mechanics and Twitch (1.2.6).

1.2.1. Machines and Desire as an Assembly

Deleuze and Guattari's concept of the machine is developed through *Anti-Oedipus: Capitalism and Schizophrenia*. They conceive *desiring machines* as omni present and ubiquitous to all aspects of life instead of mere augmenters of labour processes. Machines have the ability to cut, code and redirect flows of desire and can produce different social systems according to the given period's norms. Their conception of desire shouldn't be reduced to people buying stuff that they don't need. Consumption is evidently part of desire. But they argue that desire is also the moving force that animates the production in general.

To explain modern capitalist societies, Deleuze and Guattari take issue with non-capitalist societies. They argue that these societies reproduce themselves by establishing fixed codes, norms and values that determine the specific relations between their constitutive elements. On the contrary, capitalism "is the only social

machine that is constructed on the basis of decoded flows, substituting for intrinsic codes an axiomatic of abstract quantities in the form of money" (Deleuze and Guattari, 2009, p. 153). Thus, the fixed codes, norms and values that stabilize and regulate social order in non-capitalist societies are constantly challenged by the abstract character of the capital in capitalism. This is very similar to what Marx and Engels meant with "All that is solid melts into air, all that is holy is profaned" (1978, p. 478).

Deleuze and Guattari define the society as an organization of flows. Capitalism reterritorializes the productive forces of desire through libido and abstract labour. It reduces the desire to mere representations and then the lack of it by the way of narcissism and reintroduce the lack of desire when there is an abundance of it. Therefore, capitalism is pushing for desiring of their own repression in the very productive flows that makes it possible to move around. They also show that even though capitalism has a tendency to deterritorialize anything and everything there is also a constant need to reterritorialize the liberated productive forces.

Celis Bueno by using Deleuze and Guattari's understanding of desire discusses attention economy as an active apparatus of production. The modern companies are experts in production of information to generate machinic surplus value that is not tied to physical expenditure of workers' labour time but through the usage of their digital platforms. Interestingly, Silicon Valley companies call the people who use their services as *community members*. Which is a fine euphemism for the *machine* that is made out of actual users, workers and technical systems.

It is useful to remind us where Deleuze and Guattari borrow the conception of machine. They develop it by using Lewis Mumford's example of building of the pyramids as a starting point. In this mega machine, slaves were connected to each other to make a human machine that was also connected to a larger mechanism to transmit energy. That might be an apt analogy to define global live streaming services which not only employ a combination of people and huge investments in infrastructure but they also rely on users' contributions in the form of content

creation to participation in the live chat during the streams that make the platform an interesting place to hang out.

As stated above, all the movements of the "community members" are there to be turned into value. As the reach of these platforms increases, they can scale up their operations by gathering more data from different parts of the world, different age groups or about people from different strata, etc. Because of the hunger for information and the serious competition between these companies, Silicon Valley do not spend much time in considering whether to offer their services in regions that they don't have any expertise on.

Facebook's veiled acceptance (Stevenson, 2018) of how its services were used to incite violence in Myanmar is a worrying example. In a country where there isn't a freely functioning media and that suffers from an extreme lack of media literacy, Facebook unleashed their services by pre-installing their apps to almost all the smart phones sold in the country. Furthermore, the company failed to invest in content moderators that would factcheck the rampant fake news. According to one report (Mozur, 2018) the military was behind a systematically targeted misinformation campaign towards the Muslim Rohingya. Human rights groups claimed that this campaign resulted in murder, mass persecution, rape and forced migration of the Rohingya minority.

1.2.2. What Kind of Lack Is Created Through Live Streaming Platforms?

If we re-situate discussion around Deleuze and Guattari's conception of desire, we can perhaps better understand how digital platforms like Twitch or YouTube develop an intimate relationship of desire with their users. Deleuze and Guattari maintain that "desire is not bolstered by needs, but rather the contrary; needs are derived from desire" (2009, p. 26). In this sense, digital platforms are experts in managing desire by their portrayal of what gamers and young people must look up to. Twitch does this by positioning itself between the audiences and the people that they aspire (streamers). Audiences are mesmerized by the possibilities of the para social relationships with the streamers and buoyed by the

fact that they can interact or *be a part of the show*, for instance, by sending emojis or short text messages.

Deleuze and Guattari talk about how "lack is created, planned, and organized in and through social production" (2009, p. 28). Accordingly, through live streaming platforms digital gaming conglomerates are not only showing off their new games but they create a desire in the audiences to own that certain game. The gaming industry's greatest instinct is not only to advertise their new releases. With popular free-to-play titles such as Fortnite and League of Legends the conglomerates are trying to sell additional characters, skins, costumes etc. They do this by regularly collaborating with popular streamers and organizing tournaments to be streamed.

Additionally, gaming aficionados discuss, create fan content on games such as memes but they also develop maps, characters or other special items for their favourite games. This latter activity is done on multiplayer games or virtual worlds. What these fans are creating are often times adopted by video game companies in the next installment of a title. Gaming fans are also known as being very vocal about what they like and what could be better in games. They do this in platforms such as Steam, Twitter or Twitch… Apart from a discussion about whether these create a surplus value for the gaming companies, or the emancipatory possibilities born out of such fan creation they certainly produce a collective *lack* in gaming community and establish a direct link between the desire and production. In other words, the companies are experts in organizing the wants and needs of the people with the help of the people.

Deleuze and Guattari talk about "the great feat of not having one's needs satisfied". Firstly, let's consider *the needs* in the literal sense. If you don't own a certain game or can't afford it yet you can always watch it on Twitch. Moreover, the desire to play a game expertly is often times dependent on hours spent practicing it. Compared to established streamers, not many people possess neither the time nor the needed gear to play a certain game title. So, Twitch can cater these audiences' needs by offering them an experience similar to their needs, albeit in a different

form. The unsatisfied gamer keeps on watching and come back for more… When they come back, they encounter new games, more hype and the presence of corporations. To put it another way, by showcasing streamers who play latest games with such expertise and also with interesting commentary, Twitch can create and control the desire of the masses.

Moreover, gamers often times think that a game or a gaming platform might be lacking some features or have bugs. (Or they might just be willing to exchange ideas and socialize). So, they produce YouTube videos, tweet, participate in forum discussions, write game reviews in Steam and create other fan content that indicate this dissatisfaction towards a gaming related issue. Often times, this "dissatisfaction" is picked up by the gaming companies or Twitch as they release a patch or an improvement to the services. Then a new round of unsatisfaction or lack is socially produced and channeled into the production line. Being present in these spaces where the consumers or other actors articulate these ideas is good business for capitalists as it gives them the power to surveil upon and steer the desire of the masses.

Thus, the created desire seems to arise from a game or another gaming related product (console, peripherals, etc.) but in fact it is the desire positioned by the conglomerates that has produced those products with crucial inputs from consumers. And what better way to sew desire in masses when you have so much information about them? And once again, each time the individual desire is repurposed by people watching streams on the platform, Amazon is gaining surplus value in the form of data. In other words, attention economy is a power mechanism that reterritorializes individual desire and labour as the source of capitalist social relations and live streaming platforms is where this is fully in play.

Overall, Deleuze and Guattari's conception of desire as something which is established by an assembly of things (*paysage*) rather than something ingrained in the unconscious is a relevant way for understanding what the gaming and Silicon Valley giants are achieving in live streaming platforms. Put differently, when Deleuze and Guattari discuss why someone would desire a red sports car they don't

talk about how this person is manipulated into believing that he needs the extra horsepower. Instead, they underline why this person is led into believing that this is the car which he *needed* to have. According to them this person is not only desiring the car but the *paysage* [landscape] that they associate the car with, i.e. being wealthy, being on the move, etc. And this paysage might be different for different people. The lack that this person feels about this sports car is produced through a series of social relations. It is not only a one-way transfer from the advertisers to this person. The person is affected by the totality of his/her social relations.

Similarly, Twitch offers an environment where the audience members feel the desire of playing as good as the streamer, owning stuff (the game, in-game items, Twitch memberships, etc.), hanging out with the streamer, participation to meet-and-greets. All of these elements might not be omnipresent for all the audience members, still they develop their own assembly that makes up their wants and needs. According to Deleuze and Guattari it is the dominant class who deliberately create the *manque* [lack] and then channel the production line to fill that lack.

In the post-industrial age the production does not follow the basis of pre-existing needs. Hence with the Covid-19 pandemic we've witnessed how the manufacturing and responsible stockpiling has failed. The world economy that relied on far-flung supply networks to produce unnecessary and/or luxurious items that people desired failed spectacularly in the first months of the pandemic. The irony was even more bitter in countries like UK that led the global trade on luxury items when they failed to provide basic personal protective equipment for frontline healthcare workers (Haynes and Clayton, 2020).

All in all, attention economy acts in conjunction of a mindset of machinic enslavement where it moves the individual attention into a larger machine aimed at capturing metadata in order to economically organize populations around the world (Celis Bueno, 2017, p. 132). This definition of attention economy owes much to Deleuze and Guattari's critique of the late capitalism, especially how the

information is being valorized and the shift in creation of surplus value. Instead of Stiegler's valid but somewhat generalizing understanding of media industries that is built upon Frankfurt School, Deleuze and Guattari's more complete understanding of desire which precludes the needs is a better fit for understanding the digital platforms.

Big conglomerates who have extensive reach in many parts of the digital economy are masters of managing our attention and squeeze value out of it. To name a few, for millions of people Amazon is where they buy groceries (Whole Foods), retail products (amazon.com), stream series and movies (Amazon Prime Video) and live stream (Twitch). The company also acts as an infrastructure for the whole of the internet via Amazon Web Services (AWS). Whenever we join a conference call on Zoom or start streaming a movie from Netflix the data flows through AWS.

This latter part is crucial because while AWS is one of the most lucrative businesses of the company in terms of the net profit it is also providing data for Amazon. So much so that *The Economist* reported that the "Boards of firms in industries which Amazon may eye next have directed their IT departments *to avoid the use of AWS where possible*" ("Can Amazon keep growing like a youthful startup?," 2020). This is evidently demonstrating possible antitrust breaches, but it also points out to a further ordering of value extraction. Amazon through AWS is making financial profit but perhaps equally importantly it can produce surplus information about almost all of the business branches that one can think of. Some of the companies that use AWS are Netflix, BBC, Shell, Expedia, Airbnb, Lyft, Coursera, Riot Games, Epic Games, Activision…

Moreover, as Amazon can scale up its operations in all of these fields, each time that it extracts and combines information the surplus value that it generates increases. Likewise, its advertisement business is getting more influential and it is now the 3rd largest company in terms of digital advertising, following Google and Facebook. Furthermore, it also uses the data to fuel up other branches of the company.

For instance, data gathered from Amazon Alexa, the virtual assistant, is used to help feed voice recognition algorithms which can then be sold to AWS customers. Thus, as consumers make voice queries on Amazon's home assistant, the company is able to produce surplus value because each query is used to train the algorithms to better detect pronunciations, rating of query results, etc. As Alexa gets better, AWS can market the voice assistant to its customers with the assertion that the system is being used and tested by millions around the world.

To sum it up, re-evaluation of Marxist conception of labour and value creation, especially the decoupling of generation of surplus value from the factories constitute a compelling reasoning for the analysis of Silicon Valley companies. In this light, Twitch should not only be considered as a live streaming platform mostly about gaming. It must rather be seen as just one arm of one of the largest online technology companies in the world. And it is through this arm that it is completing the task of extracting value from gamers or young people and shape their desire with services such as Amazon Prime which in turn germinate new needs.

1.2.3. Control Societies

The usage of digital devices, social media platforms and even basic web search engines create tremendous amount of data points that can be then used for purposes such as commercial or political advertisement. As millions of people are watching billions of minutes every week, Twitch, as part of Amazon, contribute to Silicon Valley companies' data collection scheme.

Deleuze argues that each era in humanity's history develops its own technologies to exert control. In this sense, the prevalence of computers befits the latest phase in capitalism's development, individuals have become "dividuals", a market statistic, and part of a government sample or an item in a global marketing research company's data bank (Deleuze, 1992).

The humanity's relationship with the technology not only shapes human condition on an individual level but on a societal level too. Gilles Deleuze, to describe today's societies built upon Foucault's work on disciplinary societies

where the principal technology was the confinement. For Foucault, the spaces of confinement are not restricted to hospitals or prisons but schools, factories and barracks are also spaces of confinement exerting discipline. Deleuze detects a shift from Foucault's disciplinary societies to control societies that is characterized by continuous control and instant communication.

What distinguishes control societies from the disciplinary societies is that on this latest era conditioning is not just done through institutions but via an omnipresent control that is made possible by the introduction of computers. This is done through the electronic monetary transactions, quantification of all aspects of life, digital surveillance and prevalence of instant communication. While "disciplinary societies are ruled (when it comes to integration or resistance) by precepts", in control societies the key thing are codes (Deleuze, 1997, p. 180).

It is striking that Deleuze was able to see what the mass adaptation of Internet would bring although this text dates back to 1990. He talks about how digital access to information is only allowed for some. We can think about debates on digital divide, erected paywalls that block access to scholarly articles and troves of data that is not accessible to the very people that the data is extracted from.

In disciplinary societies enclosed spaces constituted the modus operandi. Schools were instrumental in shaping the young minds through indoctrination. In control societies education never ends with week-end courses, the graduate programs or "life-long learning schemes" offered by universities that belong to corporations. At first look, Internet offers opportunities to learn new languages and get new skills but the majority of internet users are mostly consuming entertainment content.

Deleuze talks about the illusion of freedom proposed by the new technologies. His take on the highways illustrate this. Highways connect cities and remote places at a dizzying pace and for the driver it creates a feeling of freedom but it is also a fascinating tool for controlling movement of people and goods between different places. We can also think of mobile phones in a similar way. Although it is a great tool that gives an unprecedented mobility to its user it also

makes possible for states and corporations to surveil and gather vast amounts of data on populations.

Deleuze, contrasting with Kittler, proclaims that machines don't explain everything about the modern world. When Deleuze proclaims that we "have to analyze collective apparatuses of which the machines are just one component" (1990) he underscores the need to inspect the dominant capitalist system as a whole. This includes the many emotions that it can foster, ways of doing business and all the coterminous connections that capitalist enterprises have with other parts of society. Thus, a technical system or a digital platform can only be understood in concordance with the inner workings of the whole machine.

On the other hand, Castells points out that these collective apparatuses include "interactive networks" and "flexible accumulation" and less and less robust national economies and core industrial sectors (Castells, 2009). While this take's projection about nation state's losing power is not proved to be entirely true, big conglomerates often times work in conjunction with states to either bypass regulation or evade paying taxes through various incentives or offshore schemes.

Nevertheless, there's a conflation of actors such as states, inter-state actors, companies, content producers, media distributors, logistics and so on. Fitting to this complex picture, Hardt & Negri define a *decentered* and *deterritorialized* logic of ruling which they call *Empire*. "Hybrid identities, flexible hierarchies, and plural exchanges through modulating networks of command" are the main traits of the *Empire* (Hardt and Negri, 2001). This conceptualization is useful in understanding of contemporary capitalism's shape shifting and invasive nature. Technology companies' data collection, targeted advertising and "data licensing" operations are a testament to this.

Deleuze pointed out that the emergence of computers and codes coincided with the societies of control. And this has resulted in a possibility of an even more encompassing system that can gather information about many aspects of human life from the contacts with state agencies to consumption habits and human interactions. Deleuze was and still is on point to characterize control societies' modus operandi

as an unstoppable data collector and invader of untapped aspects of human experience. This of course happens in a setting where possibilities of instant communication increase in an unrelentless speed. The odds are in favor for those in power to exert continuous control when people feel that they are totally free or constantly monitored. This is why he invites us to "shudder" when someone speaks of "universals of communication" as this will result in more power for some.

Overall, Deleuze's article on control societies show how people can be controlled through digital technologies and others have contributed to this approach by building upon Deleuze and Guattari's social theory. Still, a more recent take on social media companies' business model is needed. This is particularly important when these companies have become the biggest conglomerates in the world and their revenues and prospects rely on the vast amounts of data that they can gather from populations around the world.

1.2.4. Surveillance Capitalism

This era of capitalism that is fueled by digital data is linked to the media industries. A phenomenon most particularly felt on the content and reach but also the financialization of media industries. According to Amanda Lotz, the passage to post-network model in TV industry corresponds governance by market segmentation and their accompanying financial metrics (Lotz, 2018). Nonetheless, the idea of packaging and selling of audiences by the television industry to potential advertisers is not entirely a phenomenon linked to the relatively recent advent of digital data.

Long before the mass adaptation of the Internet, advertisers and TV executives were doing just that. With reference to marketing of audiences, Smythe argued that the value of a TV program is not only derived from the quantity of the audience numbers but rather demographics of the audience (Smythe, 1981). A program that is catering to a niche audience is a good source to sketch out viewers' buying habits.

The programmers are particularly keen on collecting this kind of data as this is valuable not just for the advertisers but also for future show development. Contemporary digital platforms are experts in churning out enormous amounts of data about various audiences and capitalize on that. Facebook, for instance, through "interest targeting" sell advertisement spaces for specific groups of people. This might be as narrow as Arsenal football club fans affiliated with Istanbul Bilgi University.

This business model has been chronicled in Zuboff's *The Age of Surveillance Capitalism* (2019), a work that is able to strip down the business logic of Silicon Valley giants. She states that surveillance capitalism "unilaterally claims human experience as free raw material for translation into behavioral data" (2019, p. 14). While the television industries' created audiences to sell their attention time to advertisers, Silicon Valley's model envisions a total transformation of audiences' all aspects of life into commodified data.

While some of this data is used for improving products and services the rest is considered a "behavioral surplus". She argues that this surplus data is used for their rich predictive signals and shipped to "new-age factories of machine intelligence where they are computed into highly profitable prediction products that anticipate your current and future choices" (Zuboff, 2020). This then creates "behavioral future markets". The very availability of a possibility in bending of time skyrockets the big tech's evaluation. Who wouldn't want to know what would future bring? Let alone conditioning it…

Zuboff talks about Google's "clickthrough rate" as the first successful prediction product where advertisers bet against each other for the ads that will be clicked in the future on Google's search results. Surveillance capitalism comes with an intense competition and various economic imperatives. First is machine intelligence's demanding of high volumes of data which manifests itself as "economies of scale." Secondly, for making better predictions there is a necessity of a variety of data which constitutes the "economies of scope".

This has pushed the need for surplus capture beyond the usage of digital devices and move into everyday actions like jogging, cooking, etc. which we will discuss in detail below. And after acquiring such data, surveillance capitalists realized that "the most predictive data come from intervening in human action to coax, tune, herd, and modify behavior in the direction of guaranteed outcomes" (Zuboff, 2020). She calls this latest effort the "economies of action" where the technology companies act as a global means of behavioral modification.

Overall Zuboff's work is a chilling documentation on how Silicon Valley through games like Pokémon Go to various social media sites surveil on us. She maintains that the networks created by these companies do not act as social, inclusive or democratic platforms. Far from that, surveillance capitalism was able to transform all forms of digital connection into others' commercial gain. Zuboff's value creation model contrasts surveillance capitalism and industrial capitalism. While Marx set the scenes in the former as the capitalists exploiting working class' labour, in the surveillance capitalism that labour has been replaced by private human experience. This approach is slightly different than Italian autonomists like Lazzarato and Alquati who maintains that it's the *immaterial labour* and *valorization of information* that created value in the post-industrial age.

Zuboff talks about a certain realization by the part of surveillance capitalists that they can do anything they want as long as they paid "lip service to the emancipatory power of technology". And, the secret extraction of private experience as free raw material as a business model was expertly hidden behind dopamine attacks and entertaining exchanges. The human experience she speaks of is not just the things we bought online or the TV series, news items we consume but it also contains quantification of daily life by the usage of wearables or internet connected home devices, not to mention data collected from sensors embedded in the cities and industries. All these are called the Internet of Things (IoT).

The IoT idea combines different technological developments: "Ubiquitous computing, pervasive computing, Internet Protocol, sensing technologies, communication technologies, and embedded devices are merged together in order

to form a system where the real and digital worlds meet and are continuously in symbiotic interaction" (Borgia, 2014). Zuboff's work falls in line with other studies that consider data collected from sensors and other devices as an integral part of business logic of Silicon Valley companies (boyd and Crawford, 2012; Kitchin, 2014; Tufekci, 2014).

Algorithms, on the other hand, are becoming more and more powerful in the functioning of the world as we know it. In the minutes following Associated Press Twitter account hack, automated systems that read the hoax tweet "Explosions in the White House" started to sell huge amounts of stocks, wiping out in minutes $136.5 billion of the Standard & Poor's 500 Index's value (Karppi and Crawford, 2015). In an era where crucial actions are taken beyond the speed of human thought the decisions taken up by machines are becoming very hard to put under scrutiny as there's not much information about how an algorithm came to a decision.

The problem with corporate algorithms is they're not just opaque but the kind of calculation method employed by a given algorithm is hidden under the veil of trade secret. This phenomenon is called black boxes. The "secret judgment of software" (Pasquale, 2015, p. 8) raises questions because of the lack of scrutiny as in the case of Google's search algorithm. The search engine's code and rationale behind the relevant results are notoriously not shared with the public.

Data industries, for some time, have been hard at work in "the continuous gathering and analysis of dynamically collected, individual-level data about what people are, do and say" (Couldry and Powell, 2014). With the implementation of *General Data Protection Regulation* (GDPR) in EU and *California Consumer Privacy Act* (CCPA) consumers in the West have become more aware of their rights concerning digital privacy. Bad behavior by the Silicon Valley giants such as Facebook have indeed contributed to the growing discussion.

In Turkey, *Kişisel Verileri Koruma Kanunu* (KVKK) of 2016 is a law which regulates personal data collection and storage of institutions. In contrast with GDPR, KVKK does not directly concern itself with what happens after the user

gives her/his consent to privacy agreement (Polater, 2019). Effectively, after clicking the "I agree" button, Internet users don't know much about what kind of data has been collected and traded with which third parties.

The right to ask, redaction and deletion that comes with KVKK is oftentimes unknown by the citizens or ignored by the corporations who comply to this request by simply saying that they only hold basic information such as name, surname, e-mail address, etc. The latter claim sounds particularly problematic in an age where digital marketing that rely on combination of data derived from various sources have become the norm.

These constitute the ways in which surveillance capitalism as a method of accumulation is operating in largely unregulated terrains. The rules behind the functioning of algorithms and data collection methods are kept opaque while these companies develop ever more methods for collecting data from location-based tracking to consumption habits and choices of entertainment. Next subsection will further discuss the business of harvesting data as the most seek-after company profile in contemporary capitalism.

1.2.5. Monopolization and Surveillance Capitalism

Surveillance capitalism as a business model sketched by Zuboff does suggest that the behavioral surplus data can be exchanged into cash. Silicon Valley's offering of *future markets* is a mouthwatering source for investors who have an insatiable appetite for risk taking since if you can control the behavior of people it will be the ultimate risk aversion. The controlling of the behavior part of this business is not definite yet but harvesting of information is expertly done.

Fittingly, among the companies that are expert in the field of harvesting of data, like Netflix or Spotify, are primarily evaluated on market performance (McDonald, 2016). With investors flocking into these companies, the platforms' worth is related to their performance on NASDAQ. Greg Elmer, in his study of financial aspects of Facebook found the company as being a speculative enterprise,

"[a]n institution that's governed by forward-looking metrics, indicators, prospects, patents and rumors" (2018, p. 3).

He shows this by analyzing the tech giant's Initial Public Offering document where the company values itself by "perceived future financial prospects" that involves mass data collection of Facebook user's interactions. So, the number of active users to Facebook owned platforms (Facebook, Instagram, and WhatsApp) are not the only source of value. The company needs to show the investors that people who use the platforms are actively engaging with the content either by publicly commenting or sharing a picture via a direct message.

Understanding the reliance of big tech giants to various metrics is crucial. In 2020 various tech companies' market valuations skyrocketed with the increased engagement and time spent on the platforms. Accordingly, if we go back to Zuboff's claim that surveillance capitalists are also dealing in economies of action, that is the power of influencing people's decisions the evidence is not that strong. Cory Doctorow in his book *How to Destroy 'Surveillance Capitalism'* (2020) points out that Zuboff and others are right to blow the whistle on tech behemoths like Google and Facebook but he claims that the idea that they can influence our decisions and behaviors through the power of their algorithms and ad targeting is a bit far-fetched.

Doctorow makes the point that the companies can shape our decisions not through psychological tricks, but by using their monopoly powers to restrict our choices about what we buy from their retail platforms, what we watch and through the control of app stores which shape the totality of most people's digital experiences. They can also commodify our relationships to others and control our search results.

Moreover, he makes the point that domination of media spheres by only a handful of actors was always an important issue. According to him "influence campaigns that seek to displace existing, correct beliefs with false ones have an effect that is small and temporary while monopolistic dominance over informational systems has massive, enduring effects" (2020). This reasoning about

the dangers of domination of information space makes some sense when you look at the search engine market share where Google owns %86 of all the searches ("Search engine market share worldwide," 2020).

It's reasonable to give credit to Doctorow's insistence on correcting the source of surveillance capitalists' tremendous power because it is too hard to prove if someone or a group of people has been persuaded by algorithmic moves. The shaping of human will sounds all too science fiction but the power to control markets and flows of information was always quite critical from the newspapers to television in order to gain more power.

But again, when one considers the extent of data collection and profiling done not just by the marketers but also the political campaigning a good dose of scrutiny towards targeting and persuasion tactics employed by various people is needed. The infamous Cambridge Analytica scandal was one of the first that created a global uproar about political microtargeting efforts done using data collected from social media platforms.

Such scandals brought forward issues concerning privacy but there is not much evidence that refined targeting techniques on Facebook data can produce persuasive effects (Kalla and Broockman, 2018). Nevertheless, it is a fact that surveillance capitalists are hard at work in collecting and cross-indexing data about us as the ways and the amount that we're using these services increase each day.

1.2.6. Gaming Culture, Gamification and Surveillance Capitalism

Twitch with its plethora of interaction possibilities fits to this narrative of a major player's (Amazon) extension of data collection capabilities. Here, it's useful to remind (again) that Amazon is more than an online retail giant. The company is particularly active in cloud computing (Amazon Web Services), streaming of various media (Amazon Prime Video, Audible and Amazon Music), along with a media production and publishing arm (Amazon Studios, Amazon Publishing). Amazon has significantly increased its physical presence by investing on Whole Foods Market in US and by producing their own electronic devices (Kindle e-

readers, Fire tablets, Echo home assistance and Ring home surveillance devices). The company also owns large online databases on various aspects of culture (Internet Movie Database and Goodreads).

The combination is lethal and it is precisely this kind of pooling that makes Amazon one of the biggest public companies in the world. ("The World's Largest Public Companies," 2019) Moreover, the distribution of media moves from traditional channels to streaming and this is affecting the audience measurement techniques. Engagement has become a currency in this latest phase where marketing firms evaluate engagement, "which is something more than simply watching but also involves demonstrating your participation as a viewer through things like sharing on social media" (Taylor, 2018, nn. 2–22). Amanda Lotz underlines the importance of engagement by sketching out how platforms are now offering metrics around this.

The audiences' engagement with Twitch does not only show itself in the form of posting on other social media sites. Twitch as a platform has many built-in engagement features such as chat window embedded to the right side of the video feed or various membership schemes that help Twitch collect data about engagement. This data is very valuable because it informs the advertisers about their audiences' behaviors.

For instance, game developers can get detailed insights about the audiences on Twitch. What kind of games are they into? Is the audience showing an affinity towards PCs or gaming consoles? How many audience members participated in live chat? Who's a top broadcaster/streamer of a given game? What other games a given game's broadcasters stream? And what is the percentage of broadcasters who streamed those games? ("Insights & Analytics," 2019)

According to Twitch this kind of data is not only valuable for advertisers but it "help[s] developers make data-driven decisions about future development." This is very much related to what Whitson discusses in her article, *The New Spirit of Capitalism in the Game Industry* (2019).

Her work discusses that the availability of metrics about gaming does not democratize the gaming industry for the benefit of the new entrants to the game development market but instead, "data-driven design for digital platforms introduces new gatekeepers and literacies of exclusion." This happens because game developers become increasingly dependent on platforms such as Steam or Google Play and the way they develop the games is shaped by their unconscious desire of appeasing the platforms' algorithms.

This latter point about gaming platforms' data collection capabilities are worth exploring further. How gamification as a marketing method is implemented in video gaming is equally significant to understand surveillance capitalism. First off, a definition for gamification would be "the use of game design elements in non-game contexts" (Deterding et al., 2011). In other words, adding game-like elements to activities like shopping, web browsing or news consumption is called as gamification and this has become a common sight for some time.

Elements of gamification can be found in apps such as language training app Duolingo, fitness apps like Nike+, Fitbit or Strava or food delivery apps like Yemeksepeti. While marketing people praise such mechanics like leaderboard, scores, streaks, badges, etc. because they increase the engagement with the apps, watchdogs and critics condemn them because of potential addictive aspects and privacy violations.

Gamified mechanics are used for increasing productivity and issues related to the "bettering" of self and the body. Critics argue that "many of the ludifying trends suggested being new forms of control and management" (Woodcock and Johnson, 2017). Similarly, gamified elements in gaming platforms such as Steam, PlayStation Network and Xbox create other metrics than the in-game elements and quantify some life activity and or a digital trace for in-game behavior. This might be playing the game for 30 days in a row, playing a game with your friends, instead of random people, etc. These are called achievements and they serve to "reduce the heterogeneous experience of different players playing different games to a common currency, allowing platforms to gather and compare data across

all the games their systems can run" (Pascal, 2020). Corporations can use such data in ways that have little to do with the games but to the extent that will create value for the surveillance capitalists.

In addition to the quantified achievement mechanics, in-game actions are compiled and stored too. Google had a patent application that would collect the "time spent exploring rather than completing levels" which "could indicate interest in real-world vacations" (Pascal, 2020). PlayStation's privacy policy indicates that it collects data about "What actions you take within a game or app (for example, what obstacle you jump over and what levels you reach)" ("PlayStation - Privacy Policy," 2020). These examples prove that gaming at the moment is more than harmless fun. What you play and more curiously how you play is now a part of you in a digital database and can be commodified in different ways.

This data is collected over the regular data harvesting practices of tech companies and it differs in essence because it might show personality types or other methods of psychological measurement. Similarly, data about in-game lootboxes are shared with advertisers. The lootboxes are a feature present in some games that act similar to slot machines. A gamer's inclination to pay microtransactions for instant gratifications might be valuable for advertisers and product developers. Overall, data collected in-game can be particularly interesting for surveillance capitalism's economies of scale because it provides an additional way of data hoarding.

Silicon Valley giants are hard at work in rolling out their cloud gaming services. These services will run the games from cloud servers and stream it to a screen for the player to play it remotely. This will mean the abolishing of expensive hardware such as graphics cards or new gaming consoles. Google's Stadia, Amazon's Luna, Microsoft's xCloud and Nvidia's Geforce Now will compete between themselves to get a bigger slice in cloud gaming. At the moment very few internet users possess the required broadband capabilities nevertheless the battle for collection of in-game choices and moves had already begun. These companies are

the biggest global data harvesters and their investment in this field proves the next frontier in data collection. Perhaps, new games to harvest behavioral data in controlled settings.

1.2.7. Section Summary

The valorization of information put forward a transformation in media industries where the biggest conglomerates are now the tech companies. To understand why tech companies are the most valuable companies of today, a further discussion about the transformations in capitalism is needed. Firstly, to explain the interlinking of consumption and production in post-industrial capitalism, Deleuze and Guattari's conception of desire as the moving force that animates the production in general is necessary.

Deleuze and Guattari consider that the fixed codes, norms and values that stabilize and regulate social order in non-capitalist societies are constantly challenged by the abstract character of the capital in capitalism. Individual desire, in this fluid setting, must be productive and cannot be understood as limited to the lack or consumption. Deleuze and Guattari maintain that "desire is not bolstered by needs, but rather the contrary; needs are derived from desire" (2009, p. 26).

There is a correlation between desire and the new surplus value created by the usage of social media platforms that is in the form of information rather than the physical expenditure of human labour time. In this sense, digital platforms are experts in managing desire by their portrayal of what gamers and young people must look up to by both acting as showcasing spaces and harvesters of data. Therefore, tech companies through social media and gaming platforms can establish a direct link between the desire and production. In other words, the companies are experts in organizing the wants and needs of the people with the help of the people.

Deleuze and Guattari's conception of desire as something which is established by an assembly of things (paysage) rather than something ingrained in the unconscious is a relevant way for understanding what the gaming and Silicon

Valley giants are achieving in live streaming platforms. According to Deleuze and Guattari it is the dominant class who deliberately create the manque [lack] and then channel the production line to fill that lack. Accordingly, individual desire and attention towards a streamer, game, etc. is relayed into a larger machine aimed at creating metadata which can then be used to economically organize populations around the world. In this light, Twitch should not only be considered as a live streaming platform mostly about gaming it must rather be seen as just one arm of one of the largest online technology companies in the world.

Deleuze argues that each era develops its own technologies to exert control. In this sense, the prevalence of computers befits the latest phase in capitalism's development, individuals have become "dividuals", a market statistic, and part of a government sample or an item in a global marketing research company's data bank (Deleuze, 1992). Deleuze pointed out that the emergence of computers and codes coincided with the possibility of an even more encompassing system that can gather information about many aspects of human life from the contacts with state agencies to consumption habits and human interactions.

Deleuze and Guattari's discussion of capitalism establishes a groundwork to understand contemporary capitalism. Nevertheless, a more recent take is needed to understand the business model of Silicon Valley companies and to compare it with legacy capitalism. Zuboff states that *surveillance capitalism* "unilaterally claims human experience as free raw material for translation into behavioral data" (2019, p. 14). While the television industries' created audiences to sell their attention time to advertisers, Silicon Valley's model envisions a total transformation of audiences' all aspects of life into commodified data. Zuboff's value creation model contrasts surveillance capitalism and industrial capitalism. While Marx set the scene in the former as the capitalists exploiting working class' labour, in the surveillance capitalism labour has been replaced by private human experience.

She argues that the data or the behavioral surplus that is produced through our digital interactions is used for their rich predictive signals and transformed

through machine intelligence to develop new prediction products that will anticipate your current and future choices. This lucrative business mastered the art of digging out the most predictive data by directly intervening in human action to move them towards expected outcomes. The rules behind the functioning of algorithms and data collection methods are kept opaque while these companies develop ever more methods for collecting data from location-based tracking to consumption habits and choices of entertainment.

Silicon Valley's offering of future markets is a mouthwatering source for investors who have an insatiable appetite for risk taking since if you can control the behavior of people it will be the ultimate risk aversion. Doctorow makes the point that the companies can shape our decisions not through psychological tricks, but by using their monopoly powers to restrict our choices about what we buy from their retail platforms, what we watch and through the control of app stores which shape the totality of most people's digital experiences.

In this sense Twitch with its plethora of interaction possibilities fits to this narrative of a major player's (Amazon) extension of data collection capabilities. The distribution of media content's migration from traditional channels to streaming is affecting the audience measurement techniques. Twitch as an instigator and a harvester of engagement pledges yet more reactive data for Amazon. This data when combined with other data coming from the parent company becomes even more valuable because it informs the surveillance capitalists about their audiences' behaviors and position the company right in the middle of consumption and the production.

Similarly, gaming platforms' data collection capabilities and gamification as a marketing method that is implemented in video gaming is equally significant. Corporations can use such data in ways that have little to do with the games but to the extent that will create value for the surveillance capitalists. What you play, and more curiously, how you play a video game is now a part of you in a digital database and can be commodified in different ways. This data is collected over the regular

data harvesting practices of tech companies and it differs in essence because it might show personality types or other methods of psychological measurement.

1.3. SOME OTHER FACTORS RELATED TO THE DEVELOPMENT OF LIVE STREAMING PLATFORMS

In the previous sections we've established capitalism's development through the transformation of value creation and the linking of consumption and production and how all of these major developments were concurrent with the rise of Silicon Valley companies and their platforms. The emergence of such companies as behemoths was due to several technological developments like the computer coding, the Internet, the mobile phone, etc. But as Deleuze would claim it is not because of these "innovations" that capitalism has evolved into this phase where it uses data as a surplus value. Capitalists had already figured that the information can be turned into surplus value in factories and in production lines. The digital apparatuses to exert control were developed by capitalists as they rediscovered the valorization of information in the form of data exhausted from Internet users.

In the shadow of such a decisive transformation in capitalism there are other factors and tendencies that are in play. This section's task is to provide a more up-close dissection of the development of Big Tech companies and their involvement in live streaming platforms in gaming. While some of these subsections might seem not directly associated with each other, offering these in conjunction seemed reasonable since they help to crystallize the live streaming phenomenon under modern capitalism.

Although previous sections covered attention in the form of how it is redirected by the capitalists to link consumption and production a discussion about the competition for attracting our attention by the media conglomerates (1.3.1) is needed. This discussion of actors competing for our attention is appropriate to understand live streams on Twitch because there are many stimulators on the platform. Interestingly, while tech companies are battling for our attention, they are not directly responsible for the content that they host and offer. Their decoupled development from the responsibilities gave them an edge over the legacy media

whilst they grew in size. Today they try to give the impression that they are on top of issues such as hate speech or fake news but their legally non-binding nature also known as safe haven doctrine (1.3.2) is worth exploring in the context of live streaming platforms too.

When it comes to how tech companies became the Big Tech it involves their enlargement in different areas as large as retail to cultural productions. Deleuze says that "in a control based system nothing's left alone for long" (Deleuze, 1997, p. 175). While the need for data collection explains their entry to different markets, the consolidation of such data and power result in anti-competitive behavior and create a risky scenario where the Internet backbone and the services that most people use are dependent on only a handful companies (1.3.3).

1.3.1. Economization of Attention

Attention has become one of the key markers of contemporary with the ever-increasing availability of messages flowing through various media and the multiplicity of digital communication platforms to interact with others. Ads on billboards or streaming services solicitate our attention and produce value out of us. Our conscious or unconscious choices and preferences are turned into data that is deployed in targeted marketing systems. The question about whether attention can be understood in economic terms and the possible problems brought by the transformation of our attentions has been debated by social scientists and philosophers for some time (Berardi, 2009; Celis Bueno, 2017; Citton, 2017; Stiegler, 2010b).

Amongst the names that concentrate on attention as a resource, Yves Citton develops a critical approach that links issues related to attention on a personal level to the level of society or to ecology. In *The Ecology of Attention* (2017) he establishes a continuity between teachers who are having a hard time to attract students' attention to how journalists are trying to tell their stories. He asks questions such as "If a book don't sell does it mean that it is a worthless book?" We've only been led to think that it is so. The ideas might be presented in a way

that is not grabbing our attention but still, such a book might contain radical ideas to pressing issues.

He binds this to the whole of media logic which is marred by the attention-grabbing mechanisms that not only shape the issues that are covered but also how they are covered too. Thus, the journalists or the filmmakers are just trying to persuade the audiences to consume their content in a market driven by competition. In other words, they want to sell their product by attracting as much attention as possible. And Citton claims that this market competition for capital both in terms of attention and money is crowding out our agendas. According to this, while we're consuming extremely attention-grabbing stuff from sports to digital games, we have been missing out on important things like climate crisis...

Contrary to some others, (Goldhaber, 1997) Citton considers that capitalism was always in a constant struggle to control our attention. He begins by quoting Gabriel Tarde who in the second half of 19th century formulated an early rendition of celebrity system. Tarde talks about an economy of visibility whose currency is fame. The fame that he talks about is something that can be measured. Accordingly, some famous people's attention-grabbing capacity is more scarce than the other famous people thus granting them less visibility. Citton points out how economists such as Herbert Simon are considering attention as only a commodity that can be stored or can be linked to the wealth of information which surely results in the scarcity of something else (Wark, 2017).

Citton reminds us that capitalism was always interested in capturing the attention of the masses since the late 19th century to sell them mass produced merchandises that they themselves were producing in monotonous and repetitive assembly lines. Thus, if we consider the quest for attention seeking as a new endeavor dating from the rise of the Internet in the mid '90s we could miss out on how central this issue is for understanding capitalism. Citton draws on these examples to make the point that the market for our attention where our interests are caught, bought and sold was there all along, it is up to us to change our attentional environment for the better.

While making this point, the academic takes education as a contentious place to discuss attention. He says that, instead of putting the blame on the mobile phones, the teachers need to re-evaluate themselves if the students are not paying attention to them. Therefore, in lieu of singling out one cause, he proposes that the students, teachers and mobile phones should be seen as different parts of the equation.

Moreover, the problem might be caused by the crowded classes (lack of government spending on teachers and infrastructure) or the students' socio-economical surroundings. Thus, whilst he admits that it is difficult to compete with modern media in terms of capturing the attention of the young minds he reminds us Rancière's *Ignorant Schoolmaster* (1991) who developed a better way to teach the pupils even in the subjects that he was not well versed in. In fact, it may be that the one subject that this schoolmaster was most versed in was arousing attention of the students.

Similarly, children and young people's blatant distraction (Mancall-Bitel, 2019) can be understood by examining the objects of their attentiveness. Live streaming platforms constitute a fine example as sites like Twitch became an important part of youth's online presence and is shaping their watching habits. Let's face it, social media influencers and streamers are experts in attracting attention and it's no brainer to observe that young people value what gets their attention.

Streamers are very good at this because they have fine communicative skills. They are often quite talkative and the viewers report entertainment aspect in their affective motivations as one of the main reasons for watching a stream (Sjöblom and Hamari, 2016). Having said that, streamers are not only capturing the attention of the masses because of their expertise in making interesting comments. The platform provides the appropriate footing for capturing the attention with an unbridled flow of video games and the interaction possibilities in real time.

There are other features that gamify the viewing experience on Twitch like different add-ons and the channel point system. These features are designed to capture the attention of the audiences. And when this type of content captures their

attention, some of them are ready to *show their support* by sending donations to streamers or support them in other means such as fan creations or posting about the live streams, etc.

On the other hand, you never see students tipping a teacher. OK, it will be completely inappropriate if such a thing happened, but you also very rarely see the students thanking or showing appreciation to the teachers who are good at commanding the attention in the classroom. On the rare occasions that this happens, it happens in private or in a group with few students or through confidential course evaluation forms. But on popular streams you witness people sending donations to the streamers all the time. The platform brings such transactions to everyone's attention. It is not just the financial value that is important here for the Silicon Valley company that owns the streaming platform.

What matters is people seeing other people sending money to the streamer. Witnessing such an action effectively raises the value that you are giving this. The reason for this comparison about these seemingly incommensurate situations of a teacher and a streamer is that both are related with how they are subjected to attention. Advertising donations on live streaming is about value transformation, that is convincing the audience over and over again that the thing that they are watching is worth paying attention.

As long as audiences are feeling this way about the content and the experience in the platform it is Amazon that is economizing this whole ecology of attention. Teaching, on the other hand, is more about trying to feel relevant with limited resources and taking part in an unjust competition for the youth's attention.

In this subsection we've seen a discussion of how the market logic is competing for attention. Overall, our interests are caught and bought by the masterful attention-grabbing mechanisms, targeted advertisements, etc. On top of that, these companies are also selling our attention to other parties. All these transactions indicate that attention is being exchanged as a resource. Citton proposes changes to current climate of competing attention both in individual and societal level. By putting forward a discussion of human will through Spinoza, he

claims that our attention is not free at the moment. He proposes for making drastic changes that will affect our attention in the future so that we can concentrate on issues that really matter, like water scarcity.

In a way, his approach diminishes all the unresolved issues into how much we consume entertainment content. There is also a disregard about the possibilities of discussion of crucial topics in attention grabbing content. Nevertheless, Citton's work proposes an outline to the media's thirst for attention and the lengths that they go to in order to capture our attention. Twitch with its plethora of stimulants, engagement opportunities and never ending fast paced live action is indeed a late incarnation of attention grabbing. The audiences' appetite for Twitch will be discussed in detail in chapter 2. And the ways in which this appetite is commodified will be discussed in the final chapter.

1.3.2. How Did Safe Haven Doctrine Help Social Media Sites?

In 2020, the Covid-19 pandemic ushered even a more popular epoch for the live streaming industry and cemented Twitch's leadership for the time being. According to Streamlabs' 2020 Quarter 2 report, Twitch has been watched more than 5 billion hours (May, 2020). This is a %63 increase compared to Quarter 1. Other live streaming platforms like YouTube Gaming Live and Facebook Gaming also fared much better than the previous quarters because people around the world stayed in and consumed online content.

Live streams on various platforms like Twitch or Instagram fulfilled the lack of contact and connectivity through the pandemic not to mention video calls or other online content that made the difficult days more bearable… Because of the centrality of the digital platforms to billions around the world, the tech companies' standing has been elevated. Their stock prices have skyrocketed. Amazon added more than $400bn to its market capitalization and it stood on the top of the list for 2020's biggest performers on stocks exchanges. Other big tech companies did well too: Microsoft ($269.9bn), Apple ($219bn), Tencent ($93bn), Facebook ($85.7bn), Alphabet ($68bn), Netflix ($55bn), Zoom Video ($47.9bn) ("Prospering in the

pandemic," 2020). But the investors' high trust in those companies are in complete discord with the heavy criticism that they've been receiving.

According to Reuters Institute Digital News Report 2020, social media platforms are among the least trusted sources (*Reuters Institute Digital News Report 2020*, 2020). The Institute's April 2020 research on attitudes about coronavirus have found that only %26 of the respondents trusted social media as a source of information about the virus. A similar percentage said that they trusted news coming from messaging apps like WhatsApp. In contrast, the legacy media and national governments are trusted %59.

Even though, during the first months of the pandemic, platforms like YouTube tried to be more proactive about the conspiracy theories and fake news it was not enough to turn the tide. In other news, while Twitter took a tougher approach when it labeled a few of US President Donald Trump's tweets as violating its policies on misleading information Facebook decided to sit out and not interfere. Facebook's shares were hit by the news of a boycott involving many big brands because of the platform's refusal to ban racist and violent content ("Facebook to be hit by its largest ever advertiser boycott over racism," 2020).

Incidentally, not many people are keen to give the reins of free speech to social media companies. A joint Gallup and the Knight Foundation study from June 2020 (*The future of tech policy*, 2020) found that 80% of Americans don't trust big tech companies to make the right decisions about what content appears on their sites and what should be removed. But the poll suggests that Americans trust the government even less to moderate online content. While that study only gives an insight about the US context it nevertheless demonstrates the complexity of the issue in a setting where social media sites have relied on from the Section 230 of the Communications Decency Act which protects Facebook, Twitter and other online companies from liability for content posted by their users.

The Communications Decency Act (CDA) was passed in 1996 in USA, in an era where the public perception of the Internet was about the salacious content that can be found on the internet. The law is one of the founding regulations for the

internet along with Digital Millennium Copyright Act, (DMCA) passed in 1998. The DMCA "addresses intellectual property, protects digital platforms from lawsuits as long as they follow notice and takedown procedures for copyrighted work" (Wiener, 2020). Therefore, it is the CDA which is related to content moderation and it shields the platforms from users' violations of federal crimes.

So, if a user posts child pornography to a social media site, Section 230 of the CDA shields the platform from liability as long as it was unaware of such content was there. Therefore, a social media site is only responsible to erase unlawful or problematic content when it was made aware of it. In other words, they are not expected to actively search out such content, but they are only required to alert the authorities *if* they come across it. On the other hand, a content can be problematic even when it's "lawful". Often times, thinly veiled phobic, divisive or racist content stay on the platforms because they are not deemed unlawful by local authorities.

There has been a public debate in US about the centrality of Section 230 of CDA in terms of innovation and most importantly online free speech after the president issued the "Executive Order on Preventing Online Censorship" on May 2020. Besides the personal political considerations of those in power to change the CDA some legal scholars "think that, rather than freeing companies to moderate their content, the law has enabled them to do nothing and be accountable to no one" (Wiener, 2020).

On the other hand, a proposed change to such a law would be quite problematic in terms of freedom of expression and potentially cement the handful of tech monopolies' status even further. Firstly, if platforms would have to check the content submitted from the users before publishing this would have catastrophic consequences in terms of free speech. Secondly, requirement of such high-level content moderation would mean that only platforms with the resources for constant control would survive, essentially disqualifying startups and all possible competition to the GAFAM.

Regardless of the US context and its ramifications to other countries, the content moderation is a global and highly contentious issue. On the one hand the platforms are under threat from those who want to interfere to carry out expectations of political and ideological groups. On the other hand, the ambitions of greater economic revenue and power of big tech companies need to be reigned. Last but not least, we have the world citizenry, who needs the online spaces to express their ideas and communicate with each other safely and without losing their basic privacy and innermost thoughts to the conglomerates or the nation states. This give-and-take between these three actors will be one of the defining discussions in culture and politics in the years to come.

But the issue is related closer to how tech companies are commodifying the central positions that they are holding in modern societies. As the digital platforms rely on *network effects* (Srnicek, 2016) as a business model that necessitates more connectivity and interactivity, they've become experts in mining of more data and occupying as much space in internet infrastructure as possible. As tech companies navigate through all parts of culture from music, gaming and video streaming they need to catch the attention of the users to enlarge the network effects and beat the competition coming from the legacy media.

This is one of the reasons why platforms like YouTube and Facebook are so easily associated with the fake news and hate speech. When they show some semblance of responsibility by banning white supremacists, conspiracy theorists or political bot networks from the platforms there is always the feeling of *too little too late*. Over the years, as the platforms craved for more engagement with more users, they stayed indifferent to non-factual information or conspiracy theories. Incendiary content is good for business of collecting data because people engage with such content.

Again, the Section 230 of the CDA is providing a much-needed safe haven for the digital platforms in terms of the problematic content that is being posted. But the network effects are more detrimental than one might think. Facebook's European vice-president Steve Hatch told the BBC: "When there is hate in the

world, there will also be hate on Facebook" (Cellan-Jones, 2020). But Facebook is not a neutral representer of the world as it can amplify, replicate and act as an archive to problematic human behavior.

Similarly, in live streaming community, female content creators have long complained of abuse that they've received and how little platforms such as Twitch have done (Fogel, 2019). The platform's design functionalities such as live chat is featuring live messages in a prominent way to encourage other viewers to send messages and create a networked experience. In this sense this function has acted as an amplifier for hate speech. Similarly, it took a very long time for Twitter to automatically filter out "low quality" tweets, that is abusive replies to tweets that are featured right under the original tweet in equal importance.

1.3.3. Consolidation in The Internet Economy

Recent reports and research indicate an age where digital platforms are turning into incredibly powerful one-stop shops (*Internet Society 2019 Global Internet Report*, 2019). For their daily tasks and entertainment, a large portion of the world citizenry rely on a handful of companies that are grouped by the media in different acronyms such as the "GAFAMs" (Google, Apple, Facebook, Amazon, Microsoft), "FANGs" (Facebook, Amazon, Netflix, Google), or "the BATs" (Baidu, Alibaba, Tencent). These companies are not just providing applications for the users, but they are investing heavily on the internet's infrastructure with cloud services and deploy their servers close to the broadband network's edge. This is what critics call the *flattening* internet which is a result of consolidation in the internet economy.

Concentration of power in the hands of these few companies gives them the power to develop standards and implement them at scale. They are also increasingly active in creating original content and shepherding (Gillespie, 2018) tons of others. Today all of these companies are active in the live streaming field: Amazon through

Twitch, Microsoft by its Mixer platform[1], Facebook has been promoting gaming streamers actively especially since the second part of 2019, as for Google, it portrays itself as the natural hub for gaming aficionados with YouTube. Live streaming is a field that these companies want to be present for several reasons.

Firstly, because it grows very fast and digital streaming in general has already started to threaten traditional broadcasting methods. And it will be one of the key areas that will squeeze out older media conglomerates because younger generations are now spending most of their times in these platforms (Herbert et al., 2019). Secondly, these companies have the technical means to develop and run these platforms. Moreover, their positions oblige them to be present and active because they need data points to mine and then sell to advertisers or in Amazon's case build up customer profiles. Thirdly, they are actually making some money through various membership schemes and running advertisements before or during streams such as pre-rolls or ad breaks.

Amazon tops various lists of the world's most valuable brands (Handley, 2019) and they are very keen on being active on gaming as this area is mostly populated by young people who will be the biggest spenders in years to come. Twitch is a huge asset. It acts as a platform to gather lots of data about gaming community's habits and link those to gaming companies.

Amazon is not only active in terms of content but on the backend infrastructure for major games. In 2018, Epic Games announced that their immensely popular online game Fortnite will be hosted on Amazon Cloud Services (AWS). Many other popular games like Clash Royale and Clash of Clans use

[1] On June 2020 Microsoft announced that it is going to discontinue the Mixer platform and transfer all its partner streamers and channel subscribers to Facebook Gaming. Even tough Microsoft invested in Mixer to complete signing of popular Twitchers like Ninja and Shroud the platform struggled to build audience numbers that can compete with Twitch and YouTube Gaming. The Microsoft-Facebook partnership on gaming has been touted as 'clever' because Facebook would provide the large number of user base and Microsoft the technology. Especially the xCloud system developed by Microsoft needs to reach gamers. xCloud will be a games streaming service that will offer users to launch any game that they want with just a click. Sort of a video games version of video streaming sites like Netflix and Hulu.

AWS's database and analytics services. They are also developing several games through Amazon Games Studios and also announced its' cloud gaming platform Luna that will be competing services such as Google's Stadia, Sony's PlayStation Now and Microsoft's xCloud.

Through the platforms and app stores that they own these companies wield immense power, hoard cash and data. The control of these platforms affect what apps we can use and how those apps are developed which for some create a monopolistic power (Doctorow, 2020). With such power, tech companies can lobby politicians in US to delay efforts of regulating the tech market. On the other hand, any effort to regulate the moderation policies or the removal of copyrighted content from social media sites cement the biggest companies positions as the most powerful because they are the ones who can afford such high costs of constant moderation. This is why the structural problems that led the way for the gigantification of a handful of companies through mergers and acquisitions should be scrutinized as much as what actions are those companies are taking to root out hate speech and manipulative content on their platforms.

1.3.4. Section Summary

This section started with a discussion into how the media companies are shaped for capturing our attention. Capturing the attention of the masses has been the dominant worry of media practitioners and companies throughout the history of commercial media. When Silicon Valley companies assumed the role of media distribution, they did not cultivate a different mindset and opted for all out attention grabbing as well. But as these companies are tech companies, they've concentrated on developing software and hardware that will be beneficial for them to capture the attention of the users.

On the other hand, while these companies developed the platforms and devices that we use with a mindset of attracting our attention they were not liable of the content that they've hosted on these platforms. In US, Section 230 of the CDA shields a platform from liability as long as it was unaware of it. In other words, they are not expected to actively search out unlawful or problematic content, but

they are only required to remove the content and alert the authorities *if* they come across it. On the other hand, a content can be problematic even when it's "lawful". Often times, thinly veiled phobic, divisive or racist content stay on the platforms because they are not deemed unlawful by local authorities.

The companies like Facebook articulated their reluctance of being the "arbiters of truth" (McCarthy, 2020) and tried to legitimize their inaction on issues related to the spreading of false information to the failure of protection from the online abuse. While companies were able to become bigger because of lack of liability from the problematic and incendiary content any proposal to regulate the platforms on the grounds of moderation becomes problematic in terms of freedom of expression which can't be exercised in the same manner in different parts of the world in comparison to Western Democracies.

Tech companies are commodifying the central positions that they are holding in modern societies. As the digital platforms rely on *network effects* (Srnicek, 2016) as a business model that necessitates more connectivity and interactivity, they've become experts in mining of more data. As tech companies navigate through all parts of culture from music, gaming and video streaming they need to catch the attention of the users to enlarge the network effects and beat the competition coming from other tech companies and the legacy media. This is why they've implemented many tools and services without considering potential effects. For instance, Twitter CEO Jack Dorsey recognized that there is a link between activity on his social network and real life danger to people (Rodriguez, 2019).

These few companies are not just providing applications for the users, but they are investing heavily on the internet's infrastructure with cloud services and deploy their servers close to the broadband network's edge. This is a result from the consolidation in the internet economy. While this heavy investment to infrastructure is raising potential issues of antitrust and resulted in several big fines in Europe (Cox, 2019) the issue swims closer to how these companies were able to exploit the attention of billions of users without investing in protection from harassment, fake news and potentially polarizing media environments. And now as

the need for such an investment is clear this makes it virtually impossible for startups or other competitors to enter such markets.

1.4. CHAPTER CONCLUSION

A culmination of these factors situates live streaming in a remarkable position to discuss modern capitalism because, firstly, it gives clues about renewed value creation methods. Moreover, discussing how platforms are harvesting our experiences even when we're not paying them attention and how our desire for participation is being funneled into commodified practices by these platforms unearths this modern incarnation of capitalism.

To unpack modern modulations of capitalism, Stiegler underlines the need to go beyond understanding or transformation of leisure where he identifies *personalization of individual needs* as the "great delusion" (Stiegler, 2011). Amazon offers a dynamic, personalized shopping *journey* that follows you in the far corners of the web by making the best out of the endless data collection schemes. Social media sites make us scroll personalized feeds that create delusional *peaks* into the world. Live streaming platforms offer collective entertainment *experiences* to choose from in terms of streamers, engagement levels, different memberships, etc.

All of these sites are run by the most valuable companies in the world and their emergence follows up a particular realization of the second part of 20th century. In that time frame capitalists become aware that the information that they are collecting in factories and the demographics of buyers is a value to extract, store and use in tandem. This value creation method was novel in the sense that it did not required human labour as the source of value creation. This doesn't mean that they've quit exploiting human manual labour which is still today done on multiple levels. But in addition to that legacy model of exploitation now they've managed to enroll this dynamic link between consumption and production.

At first this link was mostly about manufacturing processes (i.e. in cars, what kind of colors are more likely to sell out). Later on, through controlling and

establishing an equilibrium of consumption and production of desire the capitalists were able to acquire more capital. While controlling of desire and the information gathering process helped those companies acquire more capital, this dominant system developed yet more technologies to exert control. New companies that built "free to use" services on these digital devices run businesses largely devoid of regulation like lack of liability from the content posted on their sites and platforms as walled gardens. But most importantly, these new capitalists were able to extract a new kind of surplus value that is based on human experiences.

This business model employed by the Silicon Valley companies is most of the times called *surveillance capitalism*. But before Zuboff coined this, others like Alquati, Lazzarato, Lyotard and Deleuze & Guattari have chronicled this transformation in value creation and thus where the logic of acquisition would move on. What matters is companies like Google and Facebook have become behemoths not by manufacturing physical commodities but through digital tools and services that people around the world depend on on a daily basis.

Take, for instance, Moulier-Boutang's conception of *cognitive capitalism* where the networks are very valuable because they are quick to identify resources when time, attention and care are scarce. In this sense, "cognitive capitalism, whose purpose is to produce value (and not commodities or use values), needs to multiply its points of contact with a society that is in motion, with living activity." (Moulier-Boutang, 2012, pp. 108–109) This conception is indeed linked to why big tech companies are always in a constant struggle to release new services and enter new markets. A phenomenon also known as "network effects" (Srnicek, 2016) or Deleuze's description of control societies where every aspect of life is invaded by the dominant system…

To re-iterate, when capitalists realized that consumption could become productive, they made sure that they extracted surplus value from every product that they sold. This surplus value was information about their consuming behavior, demographics etc. which then can be used for improving the product and manufacturing process but most importantly to control the desire. Therefore, a

mutually inclusive relationship between consumption and production has been established. Digitalization has transformed this relationship which required a person to buy/consume a product. Now, an ever increasing human action and experience is a potential source of surplus value for technology companies. Our understanding of the world, how we communicate with others and the cultural production is becoming increasingly dependent on the tech companies. Even our real-world interactions with objects are quantified and stored through IoT devices.

This is a different condition than the post-industrial capitalism because the *assemblage* becomes possible through coding and deterritorialization. Gaming culture is besieged by Silicon Valley companies whose mission is to locate yet new entry points where they can come into contact with society. By usage of platforms like Twitch, Steam or PlayStation Network the gamer is embedded into *the machine*. This machine is not a mechanical one or a wholistic walking, talking robot. It is a conglomeration of hardware and interfaces that collect human experience from different fields. Consuming live streaming content on gaming along with the desire to own the latest video gaming console constitute just one of the constellations that modern capitalism can unleash in a fluid manner. This fluidity establishes the control of populations in different constellations that include cookies and trackers and services or platforms that people use.

This latest mode of value creation that is done through quantification of human experiences happen on the background. The surplus data about human experiences is used by the platforms to improve their interfaces, tools and the type of content that they invest in. Nevertheless, it still affects the relationship between our attention and the media which is now distributed through Silicon Valley companies. Firstly, the platforms owned by rival companies like Facebook and Amazon compete for our attention because they want to be able to surpass their rivals in terms of acquiring of more data. Secondly, they use such data that they extract from their other ventures to make us spend more time in their platform by pushing us to watch more. The more time one spends in a social media platform the company can gather further information about habits or collect data to be used in

psychological assessment which can then be used in targeted advertisement and development of new products. Similarly, as will be discussed in next chapters, interacting with the platform and other users, streamers, etc. users come to enjoy the experience more which result in them spending more time in the platform and also increase the engagement which in turn generates in surplus value.

Additionally, while big tech companies' market valuation has reached historic highs in 2020 the public perception is not of trust towards them. Their value has become intangible and "accounting rules don't quite capture the value of knowledge contained in the firm." (Wark, 2015) The price is formed by the traders and traders evaluate the price through companies' connectivity and the vastness of the data collection. For instance, social media companies' quarterly reports does not only indicate advertisement or other revenues but also details about engagement such as weekly active users and other engagement statistics.

In this sense the constant investment and innovation in gaming and entertainment is only the natural order of things for tech companies. And this is not a coincidence or a result of lucrativeness of direct sales. The tech companies want to be active in many fields as possible because each field comes with increased opportunities for controlling individual desire which should be understood as productive and shouldn't be reduced to subsequent selling of products.

Live streaming platforms are experts in managing desire by their portrayal of what gamers and young people must look up to, but these streamers are also born out of other audience members. In other words, dominant discourses, beloved figures or the site's culture (emoticons, jokes, features, etc.) is not just readily offered by the platform to the users. Audiences' consumption of live streaming content is productive for the platform because the audience members help develop the content, make it more interesting by their comments, etc. But they also create data points to be used in improving the platform, targeted advertisement and future game development among other things. Therefore, tech companies through social media and live streaming platforms are not just in the business of selling advertisement spaces, their craft is more about establishing a direct link between

the desire and the production processes. And they try to increase these points of contact as much as possible.

In 2020 Amazon has launched a new program called Amazon Shopper Panel that will be paying amazon users for sharing information about their purchases outside of amazon.com and for completing surveys ("Amazon launches a program to pay consumers for their data on non-Amazon purchases," 2020). The program, asks users to send in 10 receipts per month for any purchases made at non-Amazon retailers, including grocery stores, department stores, drug stores and entertainment outlets, like movie theaters, theme parks and restaurants. It is astonishing to see that a company that owns at least half of all e-commerce transactions in US ("Amazon global e-commerce market share l Statista," 2019) is still looking, yearning for more data. Or perhaps this is an affirmation of the company's business model which is based on colonization of every aspect of people's lives. They are active in many fields and can gather data from all sorts of entertainment consumption to cloud services but they make this effort to acquire information about purchases done on brick and mortar stores.

These enlargement reflexes of capitalism based on surveillance and control is excited about the possibilities that video gaming is offering not only because it is extremely popular but because gaming offers new data collection capabilities. Corporations can use such data in ways that have little to do with the games but to the extent that will create value for the surveillance capitalists. What you play, and more curiously, how you play a video game is now a part of you in a digital database and can be commodified in different ways. Similarly, live streaming platforms like Twitch should be thought in terms of these companies' hunger for information on cultural consumption and the strategic positioning of themselves between consumption and production, desire and necessity, choice and limitation, programmed and when needed delivery…

2. WHY DO WE WATCH THOSE WHO PLAY?

You're watching someone play Call Of Duty and talk about it!? (Kyle, to his brother Ike on South Park)

As many before them have, yet another generation gives a perplexed look at the younger one. Why instead of actually playing the game these young people are staring at other people's gaming screens? And, what is so appealing to watch others play videogames while talking about it? To answer those, we should first remember that watching others play video games is not a new phenomenon. We've gathered around arcade machines to watch random people unleash the *Hadoukens* on *Street Fighter* and we've crowded couches while a friend was tightly holding the controller to wreak havoc on *Grand Theft Auto*. These have been familiar sights for most. This familiarity can be used to explain the meteoric rise of live streaming platforms on gaming. *People don't only love gaming; they also love to watch others play.*

This is not only true for watching video games. Watching people play backgammon is perhaps more popular than *actually* playing the backgammon on both sides of the Aegean. And of course, there are billions of telespectators to sporting events. Then why we and South Park's Ike are surprised about seeing people watching others play? Let's answer this right away: The popularity of gaming content on YouTube and Twitch is directly related to the joy of watching, gaming and communicating while doing so. This is why live streaming of gaming content has become such a global hit attracting the interest and the investment of biggest tech conglomerates like Google and Amazon.

The task of this chapter is to explore the act of watching related to live streaming on gaming content. Live streaming is an area that stands at the intersection of several phenomena: gaming and television, legacy broadcasting and digital media, gaming industries and the platform holding tech companies… To feature these fields, this chapter will be initially visiting game studies to understand what gaming and play is about and how the game studies might help us answer the

chapter's guiding question. The second section of the chapter is about television studies which has been an ever-evolving field owed to the advancements and transformations in the technology and the content of the televised medium. Whether today's live streaming can be situated towards the end of a long line of developments in television is an interesting question tied to growing numbers of people watching livestreams.

Right after laying down gaming and television as fields it will be time to move to in front of the screen for a deep dive on people's various motivations for watching live streams. From simple entertainment to educative or aspirational purposes several studies documented all the various reasons on why people enjoy watching live streams. These studies that lay down these different motivations use various methods chief amongst them is uses and gratifications.

2.1. VIDEO GAMES AND LIVE STREAMING

This section's aim is to provide information about the game studies because it is the field concentrated on the central content of the live streaming platforms which is the video games. If we try to locate game studies next to a field it is generally perceived as being tied to cultural studies. The field enjoys close contact to sociology, psychology and anthropology. In terms of methods interpretative approaches such as discourse analysis and audience studies are used along with other well-established methods from media studies.

When it comes to games, some commentators, especially voices from the mainstream media and strait-laced scholars are keen on focusing on the negative aspects of gaming. In contrast, most game studies scholars left that divide to focus on more positive aspects of games. One major study that gave this confidence to game studies scholars came from psychology. Granic et. al. point out to the fact that games have become more diverse, complex and social in nature in the 21st century (2014). They claim that many scholars are disregarding this and focus on possible negative aspects such as addiction, loss of attention and violent behavior. Instead, they observed newly emerging research that focus on beneficial aspects of games and summarize these as cognitive, motivational, emotional and social.

Of course, game studies is not only preoccupied with legitimizing gaming in the eyes of others. It documents, among other things, the relationship of board and video games, fandoms, diversification of game types and discusses what playing means in various cultures. Moreover, the field pursues the psychological and social explanations of why so many people are fascinated by video games.

Game studies researchers have developed this area in the last 20 years by adapting methods mainly from media studies. The field can now stand on its feet. But before it established itself as such, there was a lack of interest from other disciplines of social sciences towards gaming. It was because the video gaming was perhaps regarded as a domain outside of adulthood. As the young gamers of 80's and 90's came of age, this understanding of gaming and geek culture[2] as insignificant vanished. The first issue of Game Studies Journal date to 2001 ("Game studies. Issue 1, 2001.," 2001). If a thematically dedicated journal proves the interest, the year 2001 is relatively late for demonstration of serious academic interest in this industry. Contrarily gaming was huge business-wise for a long time. For instance, Pac-Man has grossed more than 1 billion US Dollars' worth of quarters within one year when it was first released in 1980 on arcade machines in US (Loguidice and Barton, 2009).

On the other hand, some early game studies scholars insisted upon discussing game mechanics instead of conducting a wider cultural or political discussion of the gaming culture. In other words, only a small number of gaming scholars were not inclined to disregard contextual meta issues such as political economy or perils of platformization. This created a supposed gap between critical researchers and those who study gaming. These two early issues established gaming's wider status in media and cultural studies because they defined gaming as a somewhat disconnected medium.

[2] "A subculture of enthusiasts that is traditionally associated with obscure media (Japanese animation, science fiction, video games, etc.)" (McCain et al., 2015).

Today, gaming and gaming-related platforms are no longer considered as outside of political milieu and devoid of a nuanced cultural significance. For instance, the academic journal *Games and Culture* claims that their perspectives include "textual analysis, political economy, cultural studies, ethnography, critical race studies, gender studies, media studies, public policy, international relations, and communication studies." ("Journal Description: Games and Culture,") Therefore, gaming culture can now be critically scrutinized like other fields of media.

Nevertheless, not many social science scholars are interested in leisure and gaming as a cultural space as it is considered mostly personal and far from the political considerations. In fact, all leisure activity is valuable because it brings into view a discussion on people's choices about spending their pasttimes. These choices are subject to industry's involvement and the discourses and power relations of all the actors involved in the leisure activities are as important.

Taylor maintains that, contrarily to the relative low interest of researchers, gaming is "a huge— indeed for many, the most significant— space where they engage directly in core cultural issues and debates" (Taylor, 2018, pp. 13–14). Therefore, a social platform concentrated on gaming such as Twitch is clearly a fertile place to investigate. It is a space where especially the young people are watching hours long livestreams each day. And when they're not doing that, they play video games themselves and consume other gaming related content on different platforms like Twitter and Instagram.

Twitch nearly doubled the total hours watched in second quarter of 2018 compared to 2020 (May, 2020). While the Covid-19 pandemic of 2020 certainly increased the total watched hours, reports show an ever-increasing attention to live streaming platforms. Live streaming's main content is video games and the video games industry is only getting bigger. The attention that the gaming and live streaming content is getting lately will be eclipsed each passing year as more people are growing up in cultural surroundings filled with video games. In this sense gaming and the definition of play need a more thorough discussion.

2.1.1. A Wider Definition of Gaming as Not Only "Fun"

Game studies as a field places much emphasis on what constitutes *play*. Evidently, play is not only related to the digital gaming but involves a wide array of activities like sports, board games, toys, etc. The most notable and cited discussion about play comes from the Dutch cultural historian Huizinga who discussed humanity's relationship to games and playing. (Huizinga, 2016) According to him, just like *homo faber* was the being of rationality and production and *homo sapiens* was the being of reasoning *homo ludens* is simply the being of play. In his opinion, this state of being constituted the play's centrality in Western culture. As a cultural historian, Huizinga saw the need for detecting and discussing the place accorded to play throughout history.

Huizinga sees play as separate from the real world. According to him games come with pre-set rules that create a fair contest between participants. In contrast, modern day scholars develop an even more extensive definition for the concept of play. While more traditional definitions consider playing as first and foremost something fun the latter definitions consider playing a game as something that the participators can take pleasure in (Sicart, 2014, p. 3). Moreover, according to this definition, taking pleasure does not have to be instantly similar to pleasure taking that occurred such as during going down the slide. Sicart says that "[p]lay can be pleasurable when it hurts, offends, challenges us and teases us, and even when we are not playing" (2014, p. 3). This wider definition also does include play being dangerous or carnivalesque.

All the different varieties of pleasure taking in play might give clues about why watching others play is enjoyable. Streaming communities are well versed in digital gaming and they've already put thousands of hours into playing games themselves. So a streamer exercising his/her hard labor into building an enormous castle in Minecraft or trying to complete the extremely difficult task of taming the *Taurus Demon* in Dark Souls (MacDonald, 2019) is something that the audiences take pleasure in watching. The streamer's struggles, reactions or exasperations

might be familiar to the audience but there's more to this than the familiarity of the reactions.

It is perhaps a more passive way of consuming the games. You don't have to complete these difficult tasks in games by yourself but someone else does this for you. But the viewer compensates the passing of the controller to the streamer by being active in the chat or the streaming platform's other interactive functionalities. The same can be said about a tennis fan sharing his/her enjoyment of an eventful rally at Roland Garros on Twitter or in-person. The viewer's passion towards ludic entertainment segues into a pleasure taking of watching.

Play is not only central to the kids' interpretation of the world. Play is a powerful force that shows us the borders of moral conventions. For instance, role playing can make the stereotypes visible and/or reproduce them. But it also gives a platform for critiquing the expected mode of behaviors for different groups. Thus, play may provide opportunities of bending the status quo for a certain period of time or at least make them present so that people can challenge or scrutinize them. This point takes us to a transformative definition of play as something that can cut across borders, conventions, traditions and show those in power as who they are. On the other hand, play can be a tool for those in power since games as spectacles can be used as an instrument to influence and control the masses.

All of these different meanings of play are fit to the video games. These games may have a more or less linear or structured gameplay or in the cases of open world games the things to do or the scenario might be up to the player to develop. Even in a tightly controlled scenario alternating or finding ways to leave behind the limited actions provided by a video game is a reminiscent of play being a powerful force that provides a stage for representing moral conventions, stereotypes and the critiques. As this one instance shows just like other cultural products games provide countless opportunities to talk about. And this is fitting with the most popular live streaming genre called *Let's Play*. The next subsections will discuss live streaming genres' evolution in relation to gaming and the above-provided definition of play.

2.1.2. Live Streaming Categories on Gaming

Twitch combines live streaming of video game, voice commentary of the streamer (sometimes coupled with the visual of the streamer) with embedded IRC chat for viewers to interact. Concurrent to the gameplay, the chat function gives highlighting to viewer participation and community building. “Twitch streams range in size and nature, from intimate communities with fifty viewers, to massive broadcasts with tens of thousands” (Hamilton et al., 2014).

Smith, Obrist and Wrigh (2013) classified the Twitch channels in three broad categories in the platform’s early days: *eSports*, *Speedrunning* and *Let’s Play*. The competitive aspect of the videogames is present in *eSports*. Throughout the year many popular video game titles organize its’ own championships and competitions. There are periodical leagues and world championships with huge prizes for titles such as League of Legends, Fortnite, Starcraft, etc. eSports is mostly a franchise affair with teams, big organizations, sponsorships and live broadcasts akin to legacy sports broadcasting with commentators, cheering crowds, etc. These competitions create a yearlong attention to the specific titles and increase the interest in the franchise. eSports players have their own Twitch channels too, where they stream their training sessions. Some of these professional players move on to concentrate solely on their own Twitch channels…

Speedrunning is a category based on completing a game as quickly as possible. There are highly competitive listings and world records just like in athleticism. The *Speedrunning* community compete by playing both classic and new titles. The players do not talk to the audiences during the competitions on *eSports* and *Speedrunning* as it is about beating the opponents or finishing the video game as quickly as possible.

And the latter is *Let’s Plays* which covers the streamers who play games casually by narrating, commenting and chatting with the *streamees*. Interaction with the audience members is a core premise of *Let’s Play* channels. The streamer might ask questions, read the audience’s replies, comments and suggestions on the gameplay. Video-on-demand platforms like YouTube have adopted commenting

and messaging practices akin to social networking sites much earlier, (boyd and Ellison, 2007) but the disruptiveness in Twitch stems from the real time interaction possibilities due to the live nature of the streaming.

The popular streaming genre known as Let's Play rely heavily on playing new games. Game development companies send streamers online keys to access their new games ahead of official release dates (Johnson and Woodcock, 2018). This is mutually beneficial for both parties. On the one hand, the streamers need new content to fill their streams and benefit from portraying themselves as the streamer who's fortunate enough to test the latest games which also increases their viewing numbers. On the other hand, game companies enjoy the publicity brought on by this kind of partnership. This has transformed how games are being reviewed and advertised.

Twitch as a platform not only has channels of regular streamers but also from game publishers and some of the major e-sports leagues and event producers. Twitch is used by corporations as both a content and distribution platform and as a marketing tool. Let's Play channels on the other hand revolves around the streamer herself. So, her skills, jokes, reactions, commentaries are what makes a channel interesting rather than the videogame itself.

The *Let's Play* channels constitute the most popular channels on the platform. These streamers play a variety of games ranging from vintage to brand new. The fans of a channel usually receive a notification from Twitch that a certain streamer that they're following started to stream. These streams contain everything that the modern definition of play comprise of because we see the streamer play the games and react to what is happening on the game. For instance, if it's a game which requires lots of labour the streamer makes an effort to reflect the hard work she/he is putting. Or, if an unexpected thing happens in a horror game the audience take pleasure in watching the streamer scream or curse. Many such clips about startled streamers screaming or kicking are very popular and uploaded to YouTube later on. For this reason, it is not a big surprise to see streamers react theatrically to in-game actions.

2.1.3. From Let's Plays to Just Chatting on Twitch

Let's play live streaming as a genre started off as bunch of people played video games by talking about what he/she is doing. Now these streamers are not only playing video games but sharing their insights about fan culture in general or they are *just chatting* without necessarily discussing a topic related to current affairs. Talking about play is relatively easy because it is something that is happening in real time and just reacting to game play helps streamers fill in the voids. In this regard, talking about play is an instinctive activity where the streamer has enough visual (video stream of gameplay) and audio (streamer's voice, accompanied by the audio of the game) content.

In this sense Smith, Obrist and Wrigh's earlier classification needs updating. Twitch, after observing the popularity of the streaming personas, has added a new category called *In Real Life* (IRL), later renamed as *Just Chatting*. This category has streamers *just* talking about stuff. Most of the time, these streamers have migrated to this category after building audiences while streaming game plays in *Let's Plays*. As indicated, video games are interactive media and the players need to react to ever evolving situations while playing. Live streaming adds the layer of verbal and facial reaction of the player to the gameplay. A streamer's audience develop an intimate relationship where they very much enjoy the way the streamer plays and reacts to the game. This constitutes the base relationship of the streamer and the audience.

After establishing this rapport and building a community some streamers start to just chat and minimize actually playing video games. So instead of playing video games non-stop during a stream they might play viral videos, talk about stuff, take questions from the audience, etc. In other words, if an IRL streamer's countless streams are considered as one long conversation, video game playing can perhaps be likened to the icebreaking anecdotes in a face-to-face setting.

Interestingly, the fans come to enjoy the streamer's chat so much that over time they develop a curiosity over what would be the reaction of the streamer to a new game, music or other online content. The streamer plays the videos shared to

the chat by the fans. This communal experience is very valuable for the fans that in popular streams in order to convey their message to the streamer they have to rely on commodified methods such as donations, cheering to overlay their message on the screen.

2.1.4. Gaming as a Paratext

The growing popularity of IRL channels in Twitch does not mean that gaming is losing ground. In contrast, it shows that video games have become such a central force in global culture that now we are witnessing a diversification of content and a new breed of social media personalities. This also shows how audiences that are growing with gaming do need a flow of content related to gaming and communities comprised of gamers.

Twitch's predecessor Justin.tv was primarily a *lifecasting* service where people would broadcast their daily life and just talk to the camera for hours. One type of content that was popular on Justin.tv was live streaming of video games and the company has decided to move towards a gaming only platform and founded Twitch.tv. The growth of Twitch has resulted in re-emergence of content that is similar to content once available on Justin.tv. This passage to be a platform strictly reserved for gaming content has allowed Twitch to build its audience around gaming culture. The video games still constitute the backbone of the platform, but they now serve other categories like Music & Performing Arts, Special Events, Talk Shows and Podcasts, Science & Technology, ASMR, Food & Drink, Makers & Crafting, Sports, etc.

The centrality of games themselves in gaming culture has been a focus of discussion between game studies and media studies scholars when it comes to conducting an analysis on gaming related culture. Mia Consalvo shows this discrepancy by the distinction of paratext-central text (2017). A paratext is a text or other artifact that compliment a central text by providing it with some context and frame it to shape how we understand it. For game studies scholars the central text is most of the time the games and there are supporting paratexts like game reviews, eSports competitions and walkthrough videos. And for most of the media scholars,

games are the paratexts that will be complimenting a central text such as a media item.

She argues that game mods and livestreams provide areas that bridge the central text-paratext paradigm. While discussing successful streamers she says that they deliberately bend the rules of the video games that they are playing or do not follow the conventional game tactics. For example, she talks about how Twitch streamer Kaceytron jumps the cutscenes in games resulting an uproar from a portion of her live audience. Consalvo observes that "Kaceytron uses games strategically to further advance her persona, and entertain her audience, which is in the end her actual goal" (2017). Therefore, even though the games are very important and some viewers are firstly drawn to a game that a streamer is playing, over time the primary draw becomes the streamers themselves.

Furthermore, Consalvo strictly talk about how streamers as personas become the central text and don't pay much importance to the platform's affordances when it comes to other factors that makes it a captivating experience. Even though these affordances are very valuable for evaluation of this cultural product, there's a reluctance particularly from the game studies scholars to take these in consideration. The need of considering platforms' affordances like live chat or other add-ons as at least paratexts to unearth the underlying power mechanisms is there.

The discussion of paratext-central text helps us understand why we are into watching other people play video games. People who start watching a livestream in the hope to see the latest installment of a gaming franchise in action often times stay on the platform to watch the streamer play other games. They can also start watching other livestreams recommended by the platform. This shows us how the streaming personas are becoming the central texts.

Additionally, there's the need to underline the allure of the platform with its' recommendation algorithms and the promise of the communal/interactive experience even these features can't be considered as text in the traditional understanding. Nevertheless, these features definitely improve and add additional

layers to the text. The intermingling of paratext-central text in live streaming show that it is now not possible to see gaming and live streaming as two distinct fields. If playing video games is a huge part of daily lives of millions of people around the world it's only natural that live streaming is getting more and more attention.

2.1.5. Section Summary

Overall, this section started with a gentle reminder about the necessity to consider video games central for understanding modern culture. In that respect, although a late bloomer, game studies is implementing critical social science methods to evaluate gaming culture. The gaming's immense popularity means that for many people around the world it is through gaming that they engage in core cultural issues and debates. Because of this significance media studies scholars are interested in gaming culture too.

Playing a game is not necessarily a digital activity. Cultural historian Huizinga conceptualized the *homo ludens*, the being of play as an intellectual exercise to make sense of the western culture. He makes a conception that considers play as an activity of fun that is separate from the real world and how pre-set rules are crucial to games to create a fair contest between participants. This conception of play has been advanced by modern scholars by extending the definition of having fun to when you are also hurt, challenged, be in danger, completing tiring and/or repetitive tasks etc.

This wider definition of fun in play is fitting to video games which links us to live streaming where the majority of content is streaming of video games. The streamer's struggles, reactions or exasperations during a game play is familiar to the audience who are mostly comprised of gamers. The viewer's passion towards ludic entertainment segues into a pleasure taking of watching. Video games are interactive media and the players need to react to ever evolving situations while playing. Thus, live streaming adds the layer of verbal and facial reaction of the streamer to the gameplay which makes it more interesting. This additional layer is where the streamer develops an intimate relationship with the viewers.

Finally, the section ended with a discussion about the difference between game studies and media studies scholars' consideration of central texts. According to this in live streaming, video games can become paratext, that is a supporting text. This happens because the streamers with their imposing personas and showmanship are positioned as central text despite the fact that the video game that is being played is designed as a central text. But this intermingling of paratext-central text in live streaming show that it is now impossible to see gaming and live streaming as two distinct fields. This gives us a foreseen correlation about the popularity of video games and the act of watching others play video games.

2.2. TELEVISION STUDIES AND LIVE STREAMING

Previous section covered gaming in relation to live streaming by putting forward a discussion of game studies. This section's aim is to look at television studies to try to make sense of live streaming. Benefiting from this body of work is crucial because live streaming is mostly about *watching* which is also the defining characteristic of television. So, this section will first be presenting television studies as an approach that is developed to better understand television as a convergence of technical and socio-political developments. The section will then try to position live streaming in the history of broadcasting. And finally, a more detailed technical and historical aspect of live streaming will follow.

2.2.1. Studying Television

Defining and distinguishing television studies is not an easy task since the television -as we know- is always in flux and endlessly negotiated in all parts of the world. Like other media, it is not one thing to even two people who live under the same roof. The continuous disruptions of its' technology and its' content coupled with the evolution of the audiences make studying television exciting and far-reaching.

To understand what television studies is let's go over on what it isn't. Television studies is neither about doing textual analysis on the narrative structures of television series it is nor a purely technical analysis of the television set's

components. It can run these analyses but looking at the content is not enough for understanding television cultures. Thus, television studies is not only about the different ways the audiences make sense of the content. Television as a medium is affected by different things in the same time and although the researchers might use the above-mentioned methods, they do not only take into consideration just one of these aspects.

TV's overflowing between fields necessitate a definition such as Spigel's who describes TV as a confluence of "technologies, industrial formations, government policies, and practices of looking" (Spigel, 2006, p. 2). So how the TV technology changes, or some new piece of technology fails because of lack of adoption seems to be like the technical side of the TV but in fact it is related to the corporations' actions, their market share and the government regulations, and infrastructure, etc. The field needs to have an interconnected understanding when it comes to the discussion of content too. Because a TV series is not just about the filmmakers in front and behind the camera. The deliberate choices and limitations in production, the markets that the show is being developed for and how it might be received by different demographics like age groups, etc.

If we look at today's television, we see proliferation of new sources and of new ways to watch. Although people still have television sets in their houses the usage of the device varies. The content delivery methods are changing and traditional broadcasting methods like cable TV and satellite subscriptions are losing ground to distribution via the internet. More young people are saying that they don't have a subscription plan to a TV content at all (Gera, 2018; Thursday et al., 2018). For those people TV is a screen that they use to connect the gaming consoles or the streaming services. But these large boxes are still well-positioned in those people's houses and an object where they get into contact with cultural values articulated by the national or global companies and state actors.

So, as a part of lived, everyday culture studying television may help us make sense of the contemporary societies that we are living in. It is also a place to see and scrutinize a culmination of industrial factors. Moreover, "it is one of our

society's primary storytellers, a resource and tool for learning, deliberation, debate, and persuasion, and a site wherein power and ideology operate" (Gray and Lotz, 2019, chap. I). This is why television has been a fascinating site that needs a constellation of multiple approaches.

According to Gray and Lotz television studies scholars are not studying television only for the sake of television but to be able to propose and come to conclusions about "identity, power, authority, meaning, community, politics, education, play, and countless other issues." (2019, chap. I). In that respect, discussing live streaming through the lens of television studies will be useful in revealing not just our watching habits but also offer a base for discussion to above-mentioned issues.

2.2.2. The Post-Network Era and Live Streaming

Taylor, in her concentrated analysis on the emergence of Twitch and other live streaming platforms on gaming sees an interplay of many factors and calls this phenomena *networked broadcasting* (2018, chap. 2). The term proposes a discussion of how traditional broadcasting is losing ground to new forms of broadcasting brought by the digitalization. Amanda Lotz's study of the disruptive effects of cable TV and the Internet to the broadcasting is highly relevant as it takes into account shifts in technology and broadcasting corporations and the way audiences consumes content. Lotz talks about three different eras of broadcasting that follow each other.

According to her, (2018) in the traditional *network era* the viewers had limited viewing choices and were only able to follow television programs on their homes as a scheduled content. This has lasted approximately till mid 80's when the cable and satellite networks emerged. In this phase called as *multi-channel transition*, viewers gained some control with more channel options and more programming. And the latest era came with the advent of the broadband internet connections from the mid 2000's on. In this era dubbed as the *post-network era*, the audiences had even greater control over when they can start watching. In this latter

phase the amount of content available to them has also increased as media and technology companies rushed to cater various audiences.

This periodization is helpful because by discussing broadcasting's different epochs it also gives us clues about the importance of content delivery. The post-network era's popular Subscription Video-On-Demand (SVOD) services like Netflix and Hulu use the advantage of directly reaching to viewers at home without relying to the intermediacy of satellite or cable networks. In post-network era the streaming services can start transmitting the video content whenever the viewers choose to do so. They can also consume the content outside of their homes, for instance while commuting or at work.

Streaming technology offers new ways for the viewers to watch the content and in this respect, audiences now does not have to tune in at the same time to watch a TV series. They can just watch it on their *own* time. Similarly, the consumption of news is transforming and the popular slots like the evening news is being marked by this change. Overall, Lotz argues that because of this technological and infrastructural change in content delivery of post-network era, the *linearity* and *liveness* of legacy television is bound to lose ground. She maintains that traditional linear programming is being decreased in size and only sports and other big events will uphold the flow against the linear programming. It is important to add that Lotz's studies of Internet and TV in general (Gray and Lotz, 2019; Lotz, 2018) and in streaming in particular (Herbert et al., 2019) does not take into account live streaming platforms.

To directly fill this void in the discussions about post-network era, Spilker et. al. found that Twitch does represent a return to linear TV with its emphasis on simultaneous consuming of the content. In Twitch you can watch old streams or clips whenever you want but the platform prides itself on being *live*. Spilker et. al.'s qualitative study, by making use of television studies concepts like *second screen*, *flow* and *liveness* shows that Twitch is successful because it "does not demand continuous awareness, intense involvement, specific audience volumes, given durations, pre-knowledge or payment" (2018, p. 12). Indeed, during a Let's Play

stream on Twitch which typically lasts from 2 hours to 8 hours, the *streamees*/viewers often times jump to other tabs on their web browsers to navigate other pages, social media sites, etc. Or they might check their smart phones.

Spilker et. al.'s focus on the experience of the users themselves show that the audience's interest in Twitch does stem from the *flow* where streamers play different games in one stream, talk in-between games to make a segue or play music videos from YouTube etc. Although this kind of *programming* is often done intuitively by the streamers, there's a resemblance to traditional TV broadcasting where there's a planned flow of bounded programs, advertisements, hourly news bulletins etc. (Williams, 2003).

The centrality of *liveness* in Twitch is evident as the name suggests. Television has the unique and mundane feature (compared to magazines, newspaper or film) to reach its audience in real time via live programs. Scholars argued that this creates a sense of simultaneity which in turn enriches the experience and work as an agent to build communities. This does not mean that newspapers are bad at creating communities. It's just that live streaming's real-time interactive features make it a better and swifter medium to do so.

In respect to the shared liveness, Taylor, by looking at television's history in national identity formation sees a resemblance with game broadcasting and underlines the importance of creation of shared experiences and identities in these two fields. (2018, p. 24) In fact, in Twitch it is often possible to observe how a particular channel has its own jokes, funny moments, etc. which derive from these shared live experiences. These experiences bond live streaming audiences regardless of the size of the streams. So, a small stream's audience might develop feelings of community and for a large eSports event it might bolster a viewer's relationship with a competitor or a team.

Just like in sportscasts, the liveness makes it impossible to predict what's going to happen on game live streaming. During a *Counter Strike* session an unexpected development might happen. The instant reaction of the streamer or a member of the audience to this unforeseen development keep the suspense going.

And the audience witnessing and replying to such a development with messages or emoticons further develops this shared aspect of the medium. Similarly, a study on social TV, a broad term about television and social media's usage in tandem found that such engaged usage of social TV result in actors' entry to the mediated public sphere and involvement in civic issues. (Selva, 2016)

All of these experiences establish a common history and the totality of these are what transform audiences into communities. In this light the social aspect of the live streaming platforms is deeply important, but it is still in line with television's long history of creation of shared experiences. And it seems that live streaming sites like Twitch is counterweighing VOD services such as Netflix by offering a linear programming experience. This counterweighing is not only done because of the live transmission of the content. The synchronous chat window has opened new avenues for the audiences' interactions with themselves and the streamers. Compared with discussion of television shows done in social media, in live streaming interactions are integrated to be a part of the show.

2.2.3. Other Factors Like Changes in Content Production and Delivery

After discussing live streaming's relation to *post-network era* and establishing it as a continuation of linear programming in the age of internet distributed media, now it is time to discuss where live streaming fits in the broader television production practices. Proliferation of non-traditional production content like reality TV and the growth of niche outlets and programming are issues that are associated to the popularity of live streaming platforms (Taylor, 2018, chap. 2). Covered in television studies, these issues are handy for answering the appeal of live streaming both for the audiences and the technology companies.

The proliferation of niche content and networks has started with the availability of cable and satellite networks. During this time the limited number of channels was significantly increased in number. This has meant that a television channel did not have to cater to broad audiences. These mainstream markets were already very crowded, and a delicate balance of niche content was established. The

study of niche has been particularly well done in media business and management studies. Dimmick while studying modern media competition and coexistence observed how new media companies built their brands around discovering and moving in to untapped markets (2002).

According to this, the cable companies compete for channel carriage, subscriber fees and advertisement dollars. As these sources are scarce the ideal situation for a company should not be having to compete on all of these fronts with other competitors. Media companies' search for as less competition as possible have resulted in an abundance of content about sports, history, games, travel, etc. This availability of niche content increased even further in post-network era with platforms like YouTube or dedicated websites and forums before that... Now the internet offers virtually endless content about so many topics like people eating noodles or petting rabbits.

Twitch's foundation as a video gaming centered platform is a good example of a niche outlet. By positioning itself as a gaming only platform and leaving Justin.TV's chaotic mess behind Twitch was able to establish itself as a gaming-centered platform. Even though there was other free to watch video content on gaming on sites like YouTube the platform's unique product was live streams of gaming content which was adapted fairly late from YouTube. Other live streaming sites like Mixer, Facebook Gaming and YouTube Gaming came relatively late to this field. In short, the platform's two early unique selling points of gaming and live streaming made it a niche content provider and it benefited a lot from this lack of competition.

Furthermore, Twitch was also able to cater to many gaming audiences like first-person-shooter (FPS), strategy, fantasy role playing (FRP), etc. This created an internal abundance of niche content. In any moment you are able to watch people stream EA Sports' *FIFA* and other popular titles like *League of Legends* or *CS: Go*. The channels are not only about popular titles. Indie games that are not very known found its audiences. There is also a multiplicity of people who played the same title but in a different way.

All this increase in the offering of niche content corresponded with reducing of the production costs. In the traditional network era media companies' production budgets had to be massive. With the subsequent proliferation in the topics and in the type of content that came with the *multi-channel transition* production methods have started to change. In US, the search of niche markets resulted in the sprouting of dedicated television channels on fishing, war history, golf, etc. To create these markets low cost production had to be employed by these channels.

Towards the end of *multi-channel transition* period reality TV programs dominated mainstream television. In these programs, everyday individuals placed themselves on public display by discarding privacy concerns in the expectation of acquiring fame or finances… Critics talked about how these series proliferated cultures of voyeurism and promoted models with questionable social validity and had an effect of what audiences perceived as real and fictional. On the other hand, some others saw these programs as more realistic prime time content compared to big budget sitcom/drama formulas (Papacharissi and Mendelson, 2007). Regardless of whether reality TV formats were empowering or not, these inexpensive productions did well in TV ratings all around the world.

Live streaming is a continuation of reality TV. Firstly because, one of the earliest live streaming platforms, Justin.tv was about people broadcasting themselves via their webcams. This format is more monologue based than the reality TV programs because it is usually about the streamer sitting in front of the computer and talking about stuff, his/her day, etc. Reality TV's intensity rely on a combination of simple conversation and antagonism. As there was not much of a chance of several people having discussions live on webcams, streamers had to rely on themselves to create content. Some of them was singing or just broadcasting themselves while sleeping.

Streaming of video gaming content has appeared during this search to fill the void. Following this tradition, today's streamers not just talk about the games that they're playing but also talk about themselves, their personal lives, backgrounds, etc. Apart from those who became professional, the streamers'

background setting is usually his/her bedroom. Even the biggest names in Let's Play streaming try to create a down-to-earth background setting such as a living room sofa or lamp… This kind of a home background setting is similar to many reality TV programs that are filmed inside people's houses.

2.2.4. Technical/Historical Aspects of Streaming and Live Streaming

Streaming is a term often used ambiguously in different contexts like broadcasting and IT. But in general, it is perceived as an on-the-go method for delivering various content over the internet. Historically, It "appears in the 1990s to describe a technical process for delivering media over the internet in 'real time', without the file being downloaded or stored on a local drive" (Herbert et al., 2019, p. 351). This type of content delivery might be received from an internet browser or a dedicated app.

Compared with a file download, this method has several advantages. Firstly, users don't have to wait for the whole file download to end. This feature discards the file management *responsibilities* that come with digital downloads. For instance, the user doesn't have to check if the computer/device has enough space on it and/or delete the file afterwards to prevent the hard drive running out of space.

Secondly, the need for installing relevant codecs and/or media players on computers makes digital downloads a hassle. Perhaps not always in the 1990's but from 2010's on, if you own a moderate broadband connection streaming is most of the time hassle-free with pre-installed codecs which come with modern internet browsers. Streaming is also suitable for live broadcasting purposes such as radio and television programming. The media consumers can start watching a broadcast from any moment they choose to.

And also, the lack of the digital download helps the copyright owners to protect their assets as previous Digital Rights Management (DRM) tools were criticized because of the limitations that they've posed to users such as number of maximum devices allowed to copy a file.

With the advent of broadband internet and the cellular networks, the need for downloading a file in advance vanished, video sharing services such as YouTube gained prominence by building their services upon this technical process. (Burgess and Green, 2009) Over time, this method has surpassed file downloads for consuming various media over the internet. For this reason, streaming does not refer to the type of medium but the delivery method. From legitimate delivery of radio stations to pirated TV and movie content, streaming constitutes for many an integral part of the internet experience.

Recently, streaming meant a particular type of on-demand digital media service such as Netflix and Hulu in video, or Spotify and Apple Music in audio. These subscription services offer vast media catalogues for on-demand access in exchange for a monthly subscription fee. On the audio side unpaid versions of these services do exist. Such free versions are supported by advertisements. The streaming services are a success and they are responsible for recent growth in music industry. As of first quarter of 2019, Spotify has more than 100 million paid subscribers and Apple Music, as the closest competitor, has 50 million (Porter, 2019). Other players in this field are Deezer, Amazon, TIDAL and Pandora. This means that digital downloads are disappearing very quickly. Herbert et al. call digital downloads such as MP3s "transitional technology […] disappearing more rapidly than physical music formats" (2019, p. 352).

Netflix and Amazon Prime Video are leading examples to subscription video-on-demand (SVOD). Netflix is the global giant for video streaming which is often considered a direct threat to cable companies. Hulu, on the other hand is filling the need for "a local, on-demand, multi-channel, and platform agnostic content aggregator" in US (Sanson and Steirer, 2019). Cultural implications of SVOD streaming is analyzed in different studies (Hagen and Lüders, 2016; Herbert et al., 2019; Lotz, 2018; Steiner and Xu, 2018).

These subscription services are disruptive forces since they're responsible from binge watching (Merikivi et al., 2019) to relative disappearance of album format in music industry (Herbert et al., 2019, p. 360). Ultimately, they differ from

our subject matter, live streaming of gaming content which is technically the same process but differ in terms of *liveness* of broadcasted content.

Live streaming, as the name suggests, differ from streaming in terms of the simultaneity of the streamed content. While streaming is about the delivery method of the content and it includes VODs which are pre-recorded, live streaming is a type of online broadcast that is done in real time. In streaming a viewer plays back the media whenever she chooses to do so with availability of jumping to a certain point of the content.

Live streaming, on the other hand, refers to capturing/recording live of a visual/audio content and streaming it instantly. The viewers might not be able to jump to other parts of the streamed media as this is a live event. Today's most popular live streaming services like Twitch and YouTube Live offers live streamed videos as VODs after the streams.

Studies that discuss the emergence of live streaming remind us that online video conferencing has been around for some time and it's only with the addition of various interactive functionalities of the social media sites that live streaming platforms came into being. Taylor traces the emergence of live streaming platforms to 1990's cam culture. (2018, pp. 29–32) She talks about how popular imagination was excited about the prospects of videophones and telecommunication by discussing studies that identified various uses of video chatting ranging from mere conversational to exhibiting of daily lives.

The emergence and popularity of live streaming as a medium draws on different developments in technology, culture and media industries. Having long distance video calls was part of public imagination because it was featured in popular works of art such as "The Jetsons" (1962) or "2001: A Space Odyssey" (1968). From mid 2000's on, broadband internet and mobile devices/computers with built-in cameras turned video chatting that first started in late 1990's online sphere a familiar sight. Today live video streaming is not only about people having video calls. It is about holding conferences where a speaker or speakers address to a crowd and take questions instantly, broadcasting live for journalistic or

lifestyle/entertainment purposes and having long-distance meetings, online courses, etc.

Live streaming now refers to a social medium where “people browse through live broadcasts, access archived clips [of live broadcasts], and follow and interact with individual users” (Juhlin et al., 2010 quoted by Rein and Venturini, 2018, p. 3361). Live streaming as a service is offered by various online platforms and the features offered might differ. The hallmark of live streaming is the ability to send text messages to the attached chat window while watching the live stream. The attached chat window is one of the main features that turns live streaming platforms into a social medium where not only the broadcaster, but the audience becomes visible too.

The earliest incarnations of live-stream platforms were ComVu Pocket Caster launched in 2005 which was followed by Bambuster and Ustream. (2018, p. 3361) Most of these companies failed to stay alive because they were oriented towards people sharing their daily life in the form of video logs and groups such as family and friends. These services failed to create a breed of active broadcasters resulting in a lack of content to watch. Ustream is the only early entrant to this market who managed to stay alive by targeting corporations, selling them infrastructure to live stream or broadcast videos along with data analysis and strategic consultancy. Ustream’s move towards corporate specialization have resulted in an acquisition by IBM.

In 2015, live streaming finally took off as two companies was able to successfully develop live streaming platforms that can be embedded to and work with social media platforms like Twitter and Facebook. These apps offered ways for sharing live streams with followers and other users on Twitter which helped the streams and the services gain publicity. While Meerkat was the first to accomplish this, Periscope was acquired by Twitter before its’ official release. Twitter’s blocking of social graph functions for Meerkat (Terdiman, 2015) and subsequent release of Periscope gave Periscope the edge over its rival and Meerkat was discontinued in 2016.

The absolute star of the live streaming market, Twitch is the subject of this study. It is useful to remind the very beginnings of Justin.tv from where Twitch has budded. Justin.tv, when founded in March 2007, was only broadcasting Justin Kan, one of the founders of the company. Justin Kan would wear an attached webcam to a baseball hat and carry around a notebook PC specifically designed to be able to live stream from wherever he goes 24/7. This has attracted considerable interest and resulted in a format called *lifecasting*. A few months after the launch of Justin.tv, the platform opened up for others to live stream their lives. In 2011 video gaming content on Justin.tv has been moved to a new platform: Twitch. 2014 saw the discontinuing of Justin.tv as a service because of the significant growth of Twitch. Around the same time Amazon acquired Twitch for around 1 billion US dollars.

The acquisition of Twitch by Amazon made clear that live streaming is one of the most exciting parts of the internet economy. In fact, reports claimed that Google's YouTube was heavily interested in buying Twitch but was bid out of the deal by Amazon (Spangler, 2014). While Google might have been worried about antitrust issues in a possible Twitch acquisition, their release of their own gaming dedicated video platform, YouTube Gaming, certainly proves their seriousness on the matter. Although YouTube Gaming failed to be successful, YouTube, in general embraced live streaming by bringing the functionality to all the users.

The market for live streaming content on gaming is crowded. As stated, while Twitch is the absolute leader in this market there are others like YouTube Gaming Live, Facebook Live and Mixer. The latter, owned by Microsoft has announced in June 2020 that they will cease to exist after struggling to get a hold of steadily growing audiences even after completing exclusive broadcast deals with some of the biggest names in streaming in 2019 (Stephen, 2020a). Top streamers like Shroud and Ninja famously signed exclusive deals with Mixer each reportedly worth tens of millions of dollars. After the termination of Mixer, Microsoft announced a deal with Facebook where partners at Mixer would get automatic partnership at Facebook. Facebook is also investing to live streaming of gaming. According to Streamlabs Quarterly Report, in the second quarter of 2020 %11 of

total hours watched was on Facebook, following YouTube Gaming Live (%20) and Twitch (%67,6) (May, 2020).

The availability of live streaming functionality is now almost offered by all the video sharing and social media platforms; Instagram, Tik Tok, Facebook, etc. The universal availability is related to social media users looking to increase the ways that they are communicating with their networks and social media companies competing for more engagement. Each platform's different audiences live stream for different needs and prospects. From February 2020 to March, Instagram says Live creators have seen a 70% increase in video views. This increase is tied to people sheltering in their houses but also an indicator for television like consuming behavior in live streaming.

2.2.5. Section Summary

In this section live streaming platforms are discussed through a lens of television studies. As live streaming is first and foremost an act that consists of a great deal of watching it is only natural to use television studies to make sense of this phenomenon. Television is a medium that is always in transformation in varied ways in different parts of the world. This is because it is being affected by a combination of developments in technology, industrial formations, government policies and practices of looking.

As a part of lived, everyday culture studying television may help us make sense of the contemporary societies that we are living in. It is also a place to see and scrutinize a culmination of industrial factors. To situate live streaming in the history of broadcasting it is useful to look at Amanda Lotz's study of the disruptive effects of cable TV and the Internet to the broadcasting.

Lotz develops a periodization about three different eras of broadcasting that follow each other. In *post network era,* the latest era, streaming offers audiences to tune in and watch the television content whenever they want. Lotz argues that because of the technological change in content delivery of post-network era, the

linearity and *liveness* of legacy television is bound to lose ground and only sports and big events will still exist in this era.

Contrarily to that insight, live streaming platforms like Twitch does represent a return to linear TV with their emphasis on simultaneous consuming of the lively produced content. Furthermore, Spilker and his colleagues' qualitative study, by making use of television studies concepts like second screen, flow and liveness shows that Twitch is successful because it "does not demand continuous awareness, intense involvement, specific audience volumes, given durations, pre-knowledge or payment".

Television has the unique and mundane feature (compared to older media like magazines, newspaper or film) to reach its audience in real time via live programs. *Liveness* is at the hearth of Twitch too. Scholars argued that the sense of simultaneity enriches the experience and work as an agent to build communities. In fact, in Twitch it is often possible to observe how a particular channel has its own jokes, funny moments, etc. which derive from these shared live experiences of streamer and audience's interactions.

In this light the social aspect of the live streaming platforms is deeply important, but it is still in line with television's long history of creation of shared experiences. And it seems that live streaming sites like Twitch is counterweighing SVOD services such as Netflix by offering a linear programming experience. Additionally, live streaming platforms differentiate themselves by making interactions an important part of the show.

Proliferation of non-traditional production content like reality TV and the growth of niche outlets and programming are issues that are associated to the popularity of live streaming platforms and again both subjects of television studies. The ideal situation for a media company should not be about having to compete on purchase of content, subscriber fees and advertisement revenues. In that respect, two early unique selling points of gaming and live streaming made Twitch a niche content provider. All this increase in the offering of niche content corresponded with reducing of the production costs. Reality TV is one of those popular and

inexpensive formats. Live streaming with streamers' candid and long talks is a continuation of reality TV.

Overall, television has seen significant changes over the years because of developments in content delivery and viewing habits. Live streaming's popularity, especially for the young audiences comes at a time where linear programming is said to decrease with the popularity of VOD services like YouTube and Netflix. Instead, live streaming's alure comes from it being a culmination of a key legacy television feature: liveness. Moreover, television studies' discussion of emergence of "niche" media companies and the inexpensive reality TV productions further explains live streaming's success as a continuation of television.

2.3. AUDIENCE ENJOYMENT

Previous sections were centered on discussion of game live streaming in relation to gaming culture and the television, two crucial domains. The inquiry showed us that the rise of game live streaming has come at a time of increasing attention for video gaming and digital transformation of television. These factors influence people's reasons for enjoyment in varied degrees. Live streaming as an interactive watching experience establishes a continuity with people's enjoyment of television and new affordances of social media platforms.

Twitch is a broadcaster fueled by the interactive possibilities of social media and it is frequented by mostly young gamers. This curious positioning of the platform between the TV, Internet and gaming proves the interest about Twitch audiences' enjoyment. There are several studies that discuss why people enjoy and use the platform. A literature review based on these studies is pivotal in further understanding of the rise of game live streaming.

2.3.1. Live Enjoyment

In the previous section, there was a discussion of the role that liveness played in live streaming in terms of development of communal feelings. The community that is formed in live streaming is different than what established in radio and television in relation to national identities but still the liveness fosters a

shared enjoyment and experience. Mainly, the platform offers “live” content. That is content that a streamer is playing or commenting on real time. Whenever a user is logged on to the site, he/she is welcomed by a live broadcast. This is different than, for instance, from YouTube where you can find live streamed content, but the colorful homepage is about VODs. Twitch offers a 24/7 place where you can experience a *live* performance.

The user’s subsequent action is to choose between those live streams. When logged in, you can instantly choose between the channels that you follow that are live and other live channels that are recommended by the algorithm. So, browsing between channels that stream people from all around the world, playing or discussing different stuff establishes the platform at the zeitgeist of a community of gamers.

Furthermore, watching a live stream produces high amounts of suspense which in turn shape the entertainment experience similar to sportscasts. So as the outcome of a high stakes football game and individual performances of players are what creates suspense for the live broadcasting of the game, game live streaming has the same excitement that comes with it. Several studies have found that suspense is one of the foremost qualities of media enjoyment (Wulf et al., 2018, p. 4). Twitch offers a steady flow of suspense with variety streamers playing new games and other competitive games being always expectant to unexpected.

In 2020 millions around the world are tuning in to take part in a ‘shared experience’ to get through the isolation. Curiously, Twitch updated its’ wording for watch buttons on channel homepages around the same time. So now instead of *Watch now*, you see *Watch now with 17K viewers*. This invitation is more than the unique selling point of live streaming platforms. It implies that the thing that you are watching is not only a pre-recorded show it is a live and shared experience where participants can discuss stuff and have fun.

2.3.2. Social Characteristics

What distinguishes live streaming platforms like Twitch from the SVOD platforms like Netflix is first and foremost the social and community aspect of live streaming. Netflix offers an experience without any built-in social aspects. You don't have a friends list or discussion threads under the movies. Netflix opted out from that because generating talk about the latest production on social media or in casual conversations is good for publicity. While the social aspect is present in YouTube in terms of commenting on the videos and messaging, friendlisting users, you can also skip the comments section and just watch the videos.

Contrary to that, the social characteristics are at the core of live streaming platforms. Live chat window is often times overlaid on the gameplay that's being streamed and streamers regularly interact with the community during the streams. So, the social characteristics are inseparable from the experience. In fact, the interactions are one of the, if not *the* most defining character of live streaming platforms.

Accordingly, in one of the earliest studies on Twitch, Hamilton et. al. study the allure of live streaming through McLuhan's (1964) theory of fidelity and participation (Hamilton et al., 2014). McLuhan maintains that while cool media afford participation, hot media is not participative thus tied to spectating. Using this type of medium analysis, the authors maintain that the hot/*high* fidelity media component in Twitch is the game graphics, i.e. gameplay. Live webcam video and commentary of the streamer provides the *medium* fidelity and the chat window is the cool/*low* fidelity part of the experience.

Live streaming as a medium which includes both *hot* and *cool* media present different opportunities. Gameplay video as the *hot media* is the conversational kick starter with familiar/inviting game graphics which leads to shared ephemeral experiences that are conducted via the chat function (*low* fidelity). The chat function is what makes a stream "open and accessible, empowering newcomers" (2014, p. 1318). Overall, Hamilton and his colleagues argue that it is because of the hybrid

nature of the medium which affords high to low fidelity, audiences come to enjoy Twitch.

Other research on why people are watching live streams also found that the interactive/social aspects of the platforms are crucial for the audiences. (Sjöblom and Hamari, 2016; Taylor, 2018; Wulf et al., 2018) Particularly Sjöblom and Hamari's uses and gratification approach study found that user experience's most important aspect was the social interaction and community.

Uses and gratifications research have defined social integrative aspects generally as enhancing connections with family, friends and so on. The internet's legacy examples enjoyed mostly by the social integrative need type are chatrooms, forums, e-mail and messaging. Audiences who use Twitch are motivated by those social integrative aspects even though it is a broadcasting platform. Sjöblom and Hamari's research also found that users who spend more time on the platform tend to get more gratifications out of social integrative aspects. They additionally add that there is a correlation between subscribing to a Twitch channel and social integrative aspects.

On the other hand, for streamers to keep streaming it is very important that they receive motivations like feedback, community interaction and audience engagement. (Zhao et al., 2018) This is especially pivotal for the streamers of small channels since they are struggling to motivate themselves to stream for hours when only a handful of people are watching their stream. Therefore, the interaction is an integral part for those who spend time on Twitch, be it the streamers or *streamees*. Curiously the interaction is as important if not the most important aspect for Twitch as a company as well. As it will be shown below the engagement metrics is a very valuable commodity for the platforms. The parent company produce surplus value in the form of information and this interaction data along with attached demographics are sold to advertisers.

2.3.3. Para-Social Interaction

The social integrative aspect consists of interaction occurring between both the members of the audience and between the streamer and the audience. The relationship between the audiences and the streamers is worth exploring because that relationship is one of the most important attractions of the platform. Wulf et. al. try to unpack why audiences enjoy spending time on Twitch by taking into consideration the relationship between the audience and the streamers.

They maintain that the allure of audience enjoyment comes from the para-social interaction, with reference to Horton and Wohl's widely cited 1956 study. According to this, the classic image of news anchorman directly addressing the viewers is augmented in Twitch where "[s]treamers do interact with users, they answer questions asked in the chat, address their audience, and explain why they follow certain strategies." (Wulf et al., 2018, p. 5) Their survey found that this kind of interaction, even though limited is what makes Twitch enjoyable for the audiences.

Additionally, by definition in a para-social relationship viewers/*streamees* would get the feeling that they're interacting with the media persona when he/she would address the viewers. In Twitch the streamer might directly answer a question coming from the chat or the donation alerts. Wulf et. al. point out that even though this might be seen as an interaction it differs from a real-life relationship. And the decision to interact with the *streamees* is always up to the streamer during the broadcasts which constitutes an asymmetric relationship.

Although the direct reply of the streaming persona to a member of the audience differs from a real-life relationship, the streaming community knows the value of face-to-face interactions. In fact, the gaming community is no stranger to meeting up in the offline world. Gaming exhibitions, eSports tournaments, cosplay gatherings, hackatons or other community-based hookups have been the integral parts of community engagement.

To some degree, organizers of these events knew that the members of the audiences wanted to get together, chat, ask questions or simply spend time with like-minded people. What makes live streaming, an online medium, highly related to face-to-face meetings is that there's a transitivity between online interactions and face-to-face meetings. Therefore, in live streaming what begins with a traditional para-social gesture like media persona addressing the audience might lead to a physical meet-and-greet with the streamer. And in-between there are many other interaction possibilities. As stated, chat window is one of them but in the popular channels chat is often in the subscriber-only mode which means that only paying subscribers can write.

On the whole, para-social interactions between fans and celebrities have always been a mainstay of media audiences. The resemblance to face-to-face interactions is created in the imaginations of the media audiences even the media personae that they think that they are interacting is absent. (Dibble et al., 2016) The internet and the social media sites with the instant feedback and interactivity affordances has significantly expanded the width and depth with which parasocial interactions occur.

Live streaming calls into question whether the relationship between the streamer and the *streamee* might be classified as parasocial. Since the streamee can send text messages during a stream and this might be read and replied by the streamer. But not all messages written by audience members are read by the streamer. This is particularly less possible in crowded streams. But the promise of directly conversing with this media person is at the heart of the platform and the streamers remind the audiences about this possibility by randomly reading messages from the chat and using other parasocial interaction techniques such as looking at the camera and addressing the community as a whole.

2.3.4. Motivations: Aspirational, Educational, Inspirational, Entertainment, Community and Ambience

There are several studies that try to comprehend why people watch. Actually, one of the earliest studies on game live streaming concentrate on this

question. Cheung and Huang published a paper in 2011 where they've explored why people enjoyed watching the game *StarCraft* and identified nine categories associated with spectating e-sports: the bystander, the curious, the inspired, the pupil, the unsatisfied, the entertained, the assistant, the commentator and the crowd (2011). In another study, Kaytoue and others studied Twitch by crawling one hundred days' worth of data to understand and perhaps predict popular streams and games (Kaytoue et al., 2012).

As stated above, Smith and his colleagues' paper is the first study that divided streams into various categories to discuss different motivations for watching *eSports*, *speedrunning* and *let's play* streams (Smith et al., 2013). Another study previously cited on *Social characteristics* subsection (2.3.2) is Hamilton, Garretson and Kerne's (2014) paper that analyzed Twitch as a platform that offers participatory experiences to draw viewers who value social and in sync experiences. Sjöblom and Hamari's (2016) uses and gratifications study was also concentrated on understanding viewership through a survey.

By looking these various studies, T.L. Taylor outlines six motivations on why audiences are watching game live streams. These are aspirational, educational, inspirational, entertainment, community and ambience. (Taylor, 2018, p. 39) These motivations are intermingled. An aspiring gamer (aspirational) might learn new gaming tricks (educational) or a way of talking (inspirational) from a streamer. Or, the need for sharing the same discourse with others (community) and keeping exciting streams on (entertainment) the whole evening as a comforting background noise (ambience) are of course very related.

Until here we've discussed the main motivations for people to watch live streams. But Twitch is an online platform with various features. The availability of such gimmicks is what distinguishes online platforms from legacy TV. These features like subbing, cheering, emoticons, editing clips etc. are used by many and also very visible on the platform. These technologies are complimenting live chat in offering audiences new ways to interact.

A dissertation written by Cantrell (2019) conducted a survey where respondents maintained that they are quite happy with these features because they work just fine. The survey also suggests that people who use the donation feature want to be identified by not just the streamer but by their peers as well which gives clues about tipping behaviors. Finally, people who start to harbor feelings of community tend to buy paid subscriptions more. Thus, it's safe to say that beyond consuming of video content on gaming, part of the audience enjoyment comes from the usage of features such as special emoticons, following, cutting clips etc. This enjoyment is eventually converted into a form of commodified participation like *cheer* and *subscribe*.

2.3.5. Section Summary

As stated, the feeling of community and the promises of live interaction distinguishes live streaming experience from other media. A community gathered around a streamer might have a say in the direction of the stream by interacting on the chat or participating in live polls. The latter is generally about which game the streamer will be playing... Community building through shared feelings and experiences is one of the main tenets of and what audiences most enjoy in Twitch.

Although there are similarities to conventional television audience enjoyment, live streaming's technological differences from legacy television adds new layers to media enjoyment. This is also enhanced because live streaming is curiously positioned between the TV, Internet and gaming. In a way it simply combines the most engaging and proven aspects of media enjoyment of these three pillars. In fact several uses and gratifications studies on watching of game live streams (Hamilton et al., 2014; Sjöblom and Hamari, 2016; Taylor, 2018, p. 39) found these as motivations: aspirational, educational, inspirational, entertainment, community and ambience.

While these motivations can also correspond to media enjoyment of television, the liveness and the social characteristics of live streaming bolsters the enjoyment and proposes an experience with singular features. The platform's liveness boosts the enjoyment because it offers a 24/7 place where you can

experience a live performance which is surely suspenseful because you can't guess what's going to happen. And, viewers feel that they are spending time with like-minded people in real time eventually boosting a shared feeling of community.

Just like liveness is an inherent aspect of live streaming platforms, the social aspects are also very central and a huge part of the experience. Although at first look Twitch seems like a platform about broadcasting, studies have found that social integrative aspect is one of the biggest motivations for hanging out in the platform. The visual markers for interaction are inseparable from the platform which is exemplified by the high visibility of chat flow. The interaction also motivates the streamers to produce the content which is very demanding and not always rewarding. Part of the audience enjoyment comes from the usage of features such as special emoticons, following, cutting clips etc. This shows that using Twitch is not just about enjoyment of watching someone play a game but also using the platform's features which create interaction possibilities.

Twitch is also a place where para-social interactions is part of the audience enjoyment because of the instant feedback opportunities. Streamers tend to talk about what they are doing in the game and answer questions coming from the audience which can be seen as an interaction rather than a para-social interaction which is an imagination that occurs in the minds of media audiences. The streamer addressing the crowd as a whole also furthers the feelings of para-social relationship since individual viewers would feel that the streamer addresses directly to him/her. Furthermore, the decision to interact with the *streamees* is always up to the streamer which constitutes an asymmetric relationship that can be commodified by the platform.

2.4. CHAPTER CONCLUSION

"Sick kill!" I typed once, into a darkly backlit chatbox, after one of my favourite streamers did a particularly sick kill. And the streamer said back to me: "Thanks." You can talk to the TV, now, and the TV can talk back. You can ask the TV if it can throw a grenade out of a helicopter. (Golby, 2019)

This chapter started with a bewildered line from South Park where one of the characters was having a hard time understanding why someone would watch another person play a video game instead of actually playing it. After Twitch reached an average of at least 2 million concurrent viewers in the first eight months of 2020 ("Twitch Viewers Statistics," 2020) that kind of perplexing seems outdated. As the above quote documents, Twitch offers a bizarrely interactive entertainment right inside our television sets or computer and mobile phone screens. Essentially, the rise of live streaming corresponds to a culmination of developments, in video gaming, television and internet technologies.

It is a direct result of digitization of television, rise of accessibility of broadband internet and video gaming industry's increasing immersive multiplayer experience. These technological developments affected the industry and the audiences at the same time. On the other hand, the industry and the audiences had a hand in the development of live streaming as both the decision makers and the actual users of the platform.

The act of watching someone *do* something is an inherently human condition. People sit in cafes and watch others having lunch. People like to watch other people build things, like construction site gazing. And most habitually people take delight in watching others play sports. This latter activity was there from the outset and influential in the evolution of sports. On the base level, watching someone else play video games gives you a fulfillment similar to sportscasts because of the suspense of live action. But in addition, you also receive the streamer's reaction to events unfolding in the form of verbal commentary and visual expressions. Put differently, you can only hear a tennis player's thoughts in a post-match interview, not during the game.

So, the immediacy between the streamer and video gaming create a wonderful cohesion and add more layers/morph video gaming into a new medium. This alters the video game's position to become the *paratext* and elevates the streamer to being the central text. This substitution in centrality of texts proves the popularity of live streaming. Moreover, the attraction towards game live streaming

correlates with popularity of other online video content like conversational make-up videos and reaction videos to popular music.

The high valuation given to the streamer's thoughts by the audience comes from the showmanship and the gaming culture knowledge of the streamer. The audiences' aspirations for playing better or being a fun, entertaining and knowledgeable person create idols in the shape of live streamers. There are 2 billion people playing video games around the world and the video gaming as an industry is bigger than the music and cinema combined (Beattie, 2020). This certainly takes video gaming right at the top of entertainment industry. And as it's such a huge part of many people's lives there's a constant need for content. Live streaming platforms like Twitch fill this need for content with so many games being played live and also creating streaming personae that are similar to social media influencers in terms of their reach and influence.

As the streaming personae's and the platform's influence grows Twitch started to offer other content called *In Real Life* or *Just Chatting* along with dedicated channels for people eating food or making drawings. The proliferation of types of content proves that although Twitch came to being through video gaming content there's more to this phenomenon than the power of video games. Or at least, the medium's qualities have the potential to move beyond streaming of gameplay. That is why Twitch also hosts cartoon marathons where they stream every episodes of classic shows such as Pokémon and Inspector Gadget.

During these special marathon events, audiences go through an experience of communal watching with lots of messages and coordinated emoticons sent in live chat. These "networked broadcast" events are so popular that in one of the Pokémon streams, viewers posted 269k messages during 6 hours (Debeauvais, 2019). Similarly, Amazon Prime launched *Watch Party* which offers a similar experience to Twitch where you can watch TV episodes and movies with up to 100 online friends. A similar add-on was developed for Netflix too (Chaudhry, 2020).

The diversification of content in Twitch and the adaptation of live streaming format by SVOD platforms like Amazon Prime prove that the liveness and social

aspects are what differentiates and elevates live streaming platforms in the post-network era. Twitch is a televisual and a digitally interactive medium in the sense that its' volume can be turned down and run in the background just like a TV set or the viewer can immerse herself by interacting with others so much so that she can become a chat moderator for a Twitch channel. The ways to use it and take pleasure in are far too many just like the plethora of ways of taking pleasure in play.

Accordingly, the next chapter will concentrate on this pleasure taking and the promises of interactivity. Are the audiences' entertainment and community building are being exploited by the companies? How about the popular features that make Twitch are being developed? How does Twitch implement visual design and roll out these new functionalities? What is the relationship between 3rd party developers and Twitch? And how Twitch is steering its relationship with different actors into expected outcomes?

3. HOW EXPLOITATION WORKS IN TWITCH?

Param yoktu sub olamadım bu ay. Donation atayım dedim… İnşallah iş bulursam yine sub olacağım… (a donation message on Jahrein's Twitch stream – June 2017)

The above message is a display of affection towards a celebrity. It shows a streaming fan sending an instant donation of a few Turkish Liras instead of a monthly subscription of 5 US Dollars. Although people have been spending money for their objects of affection and/or fandom for a long time and artists and other creators collecting tips is not an entirely new phenomenon, this kind of direct monetary transaction between the fan and the celebrity raises eyebrows albeit it is not the sole exploitation perfected by Twitch.

This live streaming platform does this on many levels. On meta level, as described on chapter 1, tech companies through platforms and services harvest valorized information which position them as the link between consumption and production. That is perhaps the ubiquitous exploitation method on the platform. To attract our attention and compete with other media they developed tools to increase the time spent and the engagement with these platforms, services or games. The surplus data generated out of these is used for consumer behavior prediction and other tendencies of consolidation.

The creation of surplus data is done through exploitation of various actors in game live streaming. These are gaming companies, independent add-on developers, streamers and the audience members. In short, Twitch exploits every other actor that is in the field. Bear in mind that, the "legacy" exploitation methods such as wage discrepancy, working conditions of miners, factory workers or software developers that build and run the technical systems are still in play and as urgent as ever. This chapter considers exploitation in Twitch, firstly, in terms of increasing of data generation and user engagement. Secondly, in terms of the deployment of platform affordances to create surplus value in the form of data and capital. And finally, in terms of how the platform steers other actors that are

involved with Twitch into the platform's desired outcomes. This choice is linked to an effort to unlock how the latest era in capitalism, -whatever its name be (control society, cognitive capitalism, surveillance capitalism or flexible accumulation) is making the best of live streaming to accumulate more capital.

Structural platform affordances refer to how a digital platform is designed in terms of ordering, limiting and controlling the visibility and social interactions in the platform. Each platform has different affordances and these various platforms' various decisions point out that they are not neutral. By observing affordances, platforms are being crystallized as profit seeking bodies that intervene in how the content is presented, monetized or moderated (Gillespie, 2018). Each platform affordance is considered as an indicator about the given company's direction in surplus generation. For instance, Gerlitz and Helmond (2013) talks about the "like economy" in Facebook where the platform promoted and eventually accustomed us into liking posts which resulted in a culture of metrification, transforming audience traces into valuable data.

Amazon generates an almost endless number of arms to infiltrate and colonize many areas like leisure, food and retail on a near-global scale. In this all-encompassing setting Twitch embodies the relationship with video gaming and young people in general. Through Twitch, Amazon's data harvesting capabilities expand towards a younger demographic and gaming industry. But how do they do it? On the previous chapter we've discussed why people are into watching other people play. This chapter will be about how the exploitation is unleashed on Twitch.

The levels and ways of the exploitation vary. In the legacy understanding of television when the audience pays attention to a TV show they contribute to the creation of surplus value because the audience watches advertisements. Today's attention economy has shifted the consumer's attention into a constant source of information about their "consumption habits, preferences, trends, lifestyles and so on, which is then utilized to facilitate the constant adjustment of the production of commodities" (Celis Bueno, 2017, p. 46).

Here, the definition of the given attention and the subsequent engagement differs from user to user. Twitch is a platform with hyper stimuli, an amalgamation of the best in television, the internet and the gaming. In other words, it offers gaming related content that is captivating to watch and engage with. This combination is in itself more than enough to explain its popularity. On this backdrop, the profit maximization increases when audiences pay more attention than just watching. To increase attention Twitch employs a plethora of interactive methods and tools. Such affordances in Twitch and other live streaming platforms differentiate the attention from television viewers' attention-time.

The various levels of engagement will be evaluated on this chapter in relation to a discussion of active/passive audiences. Even though this active/passive binary approach is now considered mostly worn-out, my immediate worry here is not if this platform can offer emancipation for the audiences. It is about how the increased engagement is transformed into more profit for the platform. To achieve that the platform uses methods like gamification or community building which will be discussed in detail.

The platform uses a variety of ways to accomplish this feat. From carefully designed user interfaces, to swift streaming of content through the powerful cloud infrastructure and the bundling of Twitch perks to Amazon Prime memberships, there are many aspects that establishes this platform as the leader. But in each of these fortes there's more than meets the eye. Every aspect of the platform is crafted to keep the users on the platform, generate engagement data and additionally, push them towards micro transactions like sending virtual gifts to the streamers. The users are not the only exploited actors in this picture. Amazon uses Twitch's central position in gaming culture to generate surplus data on video gaming industry.

The first chapter provided a discussion on the evolution of value creation methods in capitalism. Tracing this to valorization of information and the subsequent discovery of surplus data generation by Silicon Valley companies. The following chapter provided a discussion about why people are so keen on watching others play games and how digital platforms were able to ride upon this basic urge

of watching play. Finally, this chapter turns the spotlight directly to Twitch and discuss the surplus data creation in terms of passive watching activities and engagement with the platform through an observation of site's features via Grounded Theory Approach which is informed by platform studies (3.1). The GTA compels the researcher to create theory through a simultaneous process of data gathering and coding which result in a categorization of data.

The following two categories describe what I call *commodification of agency* in Twitch: *Engagement* and *deep engagement*. *Commodification of agency* is a modern incarnation of capitalist accumulation methods based on information that is gathered in result of activities related to watching and different levels of engagement. After the methodology section, I will be establishing agency and participation in relation to our online activities by discussing the relevant literature (3.2). Secondly, I will concentrate on *engagement* pertaining to audience-audience, audience-platform and audience-streamer interaction (3.3). And lastly, in the category that I've named *Exploitation through deep engagement* there is a rundown of actors who are deployed to increase surplus value for the platform: streamers, game developers and independent coders (3.4).

3.1. METHODOLOGY

This chapter's task is to locate and discuss exploitation in Twitch. As a digital platform that combines live broadcasting with interactive affordances it is a site with ever evolving qualities, actors and technologies. The methodological considerations that answer the question *How exploitation works in Twitch?* oblige an effort of surfacing this platform's connections to digital capitalism and the next frontiers in broadcasting. Twitch's functionalities segue between what is mundane and exciting in broadcasting and social media. With fast paced action, interaction and endless gimmicks it is not an easy place to keep track of.

This is why I've used Grounded Theory Approach (GTA) as a qualitative method that will bring about the ways in which exploitation is unleashed in the platform. Along with GTA that I used for collecting data on platform's design and features I also relied on *platform studies* as a way of making sense of the digital

affordances of Twitch in relation to political economy, business studies and software studies.

The data sources that I collected are: notes on design (layout) and features, Twitch documentation (terms of service, privacy and developer services agreements, Frequently asked questions page, official blog posts, tweets, Twitch's official live streams on the platform itself, etc.), Twitch and Amazon executive and employees' publicly available interviews, online news coverage of the Twitch ecosystem, streamers' reflections and usages of Twitch affordances collected from various Twitch channels and their social media channels. Lastly, users'/audience members' input have been included through the informal conversations that I've conducted on and off the site, from publicly available posts in forums like Reddit and Discord, social media posts and from the Twitch live stream's chat function.

GTA's primary purpose is the creation of a grounded theory by explaining the data that is derived inductively. This method requires the researcher to categorize the data after the initial data collection period has the advantage of refinement through continuous analysis and data collection. GTA is a qualitative methodology that requires researchers to identify a behavior or an activity without an a priori hypothesis. During the observation and data collection phase the researcher also start the coding process in conjunction. Thus, the theory reveals itself from the *ground* up.

While employing that methodology developed for sociology to analyze human activities, I also need to be able to consider the limitations and affordances offered by this digital platform. Platform studies as a perspective is quite useful because it shows how communication, expression and agency can be enabled and constrained by the new digital platforms. In this respect, thinking through platform studies, this thesis matches its desire to unpack techno-commercial infrastructures of platforms and the interrelations between Twitch and Amazon's other ventures.

Platforms are programmable, modular systems often owned by corporations. They differ from infrastructures in terms of architecture, how they allow relations between components, market structure, focal interest being public

value or private profit, standardization, temporality, scale, funding and agency of users (Plantin et al., 2018). Digital platforms are open to participation as their main asset is hosting communities but their operability standards or working logic is opaque.

These platforms start on small but may become omnipresent like Google or Facebook. And along this road the desire for making profit shapes their understanding of the world and their ethics. Scholars who discuss platforms make a point of how platforms have changed the utopian promises of the early, open internet (Gillespie, 2018; Plantin et al., 2018), how profit seeking shapes the culture and free speech (Nieborg and Poell, 2018; Srnicek, 2016) and how content moderation is the most contentious aspect of platforms (Gillespie, 2018).

From election meddling claims to free speech to online abuse and privacy concerns, platforms are one of the defining sociotechnical systems of today. In order to analyze them, Nieborg and Poell propose a methodology that will encompass three different approaches: Business studies, political economy and software studies. The former helps us explain the institutional relationships with the end-users and complementors when there's a situation of winner-take-all-effects. Political economy perspective is useful in showing power and politics at play such as "commodification of content, the exploitation of cultural labour and immaterial labour" (2018, p. 5). Although this approach is used frequently it doesn't take much notice of "network effects" or "questions pertaining to platform governance and infrastructure." (2018, p. 6) Thus, the software studies approach offers a concentration on observation of "the proceduralized choices of a machine, designed by human operators to automate some proxy of human judgment or unearth patterns across collected social traces." (Gillespie, 2014 quoted by Nieborg and Poell, 2018) Software studies approach checks the computational back-end of platforms to unearth automated policies and decisions that affect the totality of the platform.

Twitch as a platform that lives by the promises of participation needs the approach of Platform Studies because that approach has a higher probability of acknowledging the dual nature of commercial platforms (Plantin et al., 2018, p.

297). While their affordances support individual or collective creativity they shape and limit participation to guide it towards the ways in which the platform's creators can profit the most.

For instance, in social media self-expression is valuable for the users because it can emancipate, provide fun, bring like-minded people together, etc. On the other hand, the amplifications of some messages, nudges and other systematic pushing of audiences to constant self-expression or engagement by the platform are good places to start investigations because these areas are considered as *double articulations*. This concept suggests that "communicative acts – particularly those occurring through digital objects – that take place at one level simultaneously create new articulations at another level."(Langlois and Elmer, 2013) When the platforms, through notifications, remind us to engage with them or share details about our day or vacation it is primarily for the sake of data generation. In other words, as the technical properties of communication among users are planned and organized by the platform corporations these interactions can be considered to be highly affected by the platform's preoccupation of surplus data generation. This is why close scrutiny of platform affordances of audience-audience and audience-streamer communication is needed.

Again, any affordance of a technological object shouldn't dismiss the multidirectional nature of agency as a matter purely technical since the affordances of a digital platform is not about technical capabilities or consumers' choices. Underneath the affordances one can unearth the background of coders (Wajcman, 2018), the for-profit approach pushed by shareholders and/or weird and dangerous desire of humans to push problematic content (Koebler et al., 2018) among other things.

In this sense, exploring a platform's affordances do make sense because it will be a good method of understanding actors' pursuits and the reasoning that reigns in the platform's decision takers. Bucher & Helmond on their analysis of likes on Twitter lays down a few important aspects when it comes to analyzing a digital platform (Burgess et al., 2017). First one is related to actors. They remind us

that social media platforms are not only affording things to end-users. Developers are influential in developing apps or different functionalities to work in platforms and developers' efforts are shaped by what the platform is leading them towards or permitting to do. Advertisers' relationship with the platform is crucial. The ability to spin and determine the qualities of the audience data is important.

Secondly, they talk about various surfaces that these actors come together. This might be an interface of the platform such as developers' area or any other interface that has been designed by the platform. Obviously, exploring a surface's affordances is fitting as this has the purpose of showing what's at stake for different actors. For this point I have collected data from Twitch Developers and their Discord channel. Thirdly, they talk about how malleable the surfaces are as social media sites that offer highly personalized environments for different users. For the purpose of this study, this point might be furthered by how different actors such as streamers, app developers, users or the platform managers have different roles, and these roles don't come with predetermined action schema. But as their actions are regulated by the platform what kind of rules and instructions are being laid out by the platform is extremely important. These rules and instructions can be found in terms of service, community guidelines, official blog, Twitch Developer documentation and other officially published text.

To be able to better make sense of these instances that happen on top of the exploitation that is realized during the mere act of watching a live stream GTA's data collection method will be used. GTA may be applied to interviews, documents, spaces, interactions and any other instance of human communication. Observation of any space connected to human communication is included in this process. Glaser's dictum of "all is data" (quoted by Leavy, 2014, p. 127) can be understood as encompassing many other types of source material, for example, documents, articles, web page functionalities, tweets, etc. Overall, the crucial point in GTA entails the need for data collection and analysis' proceeding simultaneously. Because "each informs and streamlines the other." (Bryant and Charmaz, 2007)

The GTA's founders, Glaser and Strauss introduced GTA as an alternative to the literature-derived method (Glaser and Strauss, 1967). Particularly Glaser advocated to stay away from previous literature on the subject. Glaser and Strauss parted ways in 1990s because of such disagreements over to the approach to literature and coding. Still, the proponents of the method maintain that researchers have to review the literature beforehand and after the data collection and coding process, "a potentially more rigorous one near the end" (Leavy, 2014, p. 132).

By using GTA as a methodology and platform studies as a lens, I aimed for understanding how Twitch as a platform exploits its users, streamers and other affiliates alike. As my concentrated definition of exploitation is not centered around exploitation of human labour in a legacy sense but linked to the generation of surplus data and commodification of interaction and access to the objects of fandom, I've decided to contemplate on the instances of interaction between users, streamers and the platform. To achieve that in relation to my research question I've opted for immersing myself into hours of Twitch live streams.

I've watched recommended channels (top channels) along with the channels with the most live viewers both in Turkish and English. On Twitch.tv's homepage users are welcomed with a carousel type web design element that shows "top channels" which are recommended by Twitch through algorithms or editorial curation. As it is a place where Twitch showcase interest grabbing channels, the games or the type of live streaming might differ from time to time. Overall, these channels are always Twitch *partners* or *affiliates*, i.e., channels that are associated with Twitch. This means that these channels passed a vetting process. In other words, the ways in which these streamers live stream and use the platform are *ratified* by Twitch.

The second group of channels that I've collected data is the most popular channels. These popular live channels are recommended on the channel navigation menu that is present on the left side of Twitch. For instance, when you start watching a live stream the recommended channels menu (Figure 2) shows the most popular channels related to your location, i.e., the most popular live Turkish

language channels are recommended when you login from Turkey. Similarly, when you start watching an English language channel the algorithm recommends the most popular live channels in the same language. Overall, all of these channels share similar flows when it comes to affordances as they are governed by Twitch.

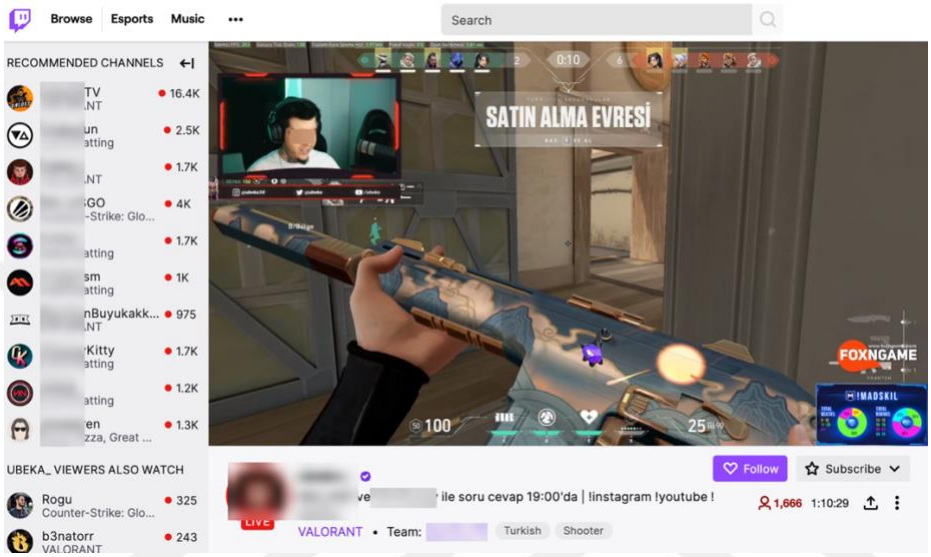

Figure 2 A screenshot that shows the live recommended channels with also includes the most popular channels

I've conducted two different data collection periods (in May 2018 and February 2020) where I've regularly took notes while watching two hours each evening during periods that lasted two weeks each. During these data collection processes, I've taken notes about the regularly occurring features related to user engagement and other interactive affordances. After these initial data collection periods were completed, I again went over my notes and began to categorize the data. After that, I've did the same process over, albeit in a way that fulfilled the need for additional data and other perspectives.

While collecting the data I made an effort to be mindful of double articulations of affordances that provide engagement for the actors and surplus data for the platform conglomerate. According to this data collection, I've catalogued these levels in two broad categories of exploitation. On top of the exploitation of passive watchers due to their exhaust data, I have grouped these two types of exploitation in the platform: *exploitation through engagement* (3.3) and *exploitation through deep engagement* (3.4).

Table 1 From engagement to deep engagement

Type of commodification of agency	***Engagement***	***Deep Engagement***
Who are the targeted actors?	End users (*streamees*)	Others (streamers, game developers, extension programmers, etc.)
What are their motivations?	Aspirational, educational, inspirational, entertainment, community, ambience, visibility	Business related expectations (financial gain, reaching new audiences, keeping audiences engaged with their products), some sort of visibility
What the platform expects to generate from this relationship?	Surplus value (mostly in form of data and some direct revenue), brand affinity	Surplus value in the form of data and promoting of user behavior that will generate surplus value for the platform owners
Objects of study	The features/affordances deployed by the platform for the end user	Why and how these features have been asked to be developed/promoted by these actors (streamers, developers, etc.)?
Which data sources have been used in the analysis?	• Notes taken from live streams on design (layout) and features • Posts by users (live stream chats, Discord and Reddit posts) • Interviews with audience members • Twitch's social media posts and official help documentation on twitch.tv • Twitch and Amazon executives' and employees' publicly available interviews	• Twitch documentation (terms of service, privacy and developer services agreements, frequently asked questions page, official blog posts, tweets, Twitch's official live streams on the platform itself, etc.) • Twitch and Amazon executives' and employees' publicly available interviews • Online news coverage of the Twitch ecosystem • Streamers' reflections and usages of Twitch affordances collected from various Twitch channels and their social media channels
How does the platform channel/"groom" these actors' behaviors?	Promotion and visibility of certain features, behaviors, "community building"	Establishing of guidelines and rules, "community building" (Twitch Developer Community)
Level of commitment shown by the actors	SAOE, microtransactions, turning over of personal data	Immaterial labour, turning over of company/personal data

While writing about these fields of exploitation I've used additional data that I've gathered from Twitch's official documentation, frequently asked questions pages, social media posts and material linked to Twitch employees like publicly available interviews and news items. Different sources of data have been used in the discussion of commodification of agency in relation to Twitch because this vast digital platform's political economy reveals itself when the platform steers and/or promotes and pushes these actors towards certain behaviors.

The table (Table 1) provides a rundown of how my conception of commodification of agency came into being. The table provides dedicated columns on *engagement* and *deep engagement,* categories that arose while seeking the exploitation done on Twitch. During the coding and grouping process, I followed why certain activities, features in Twitch are more visible than others. I tried to trace this visibility both from the notes that I've taken during the live streams and other sources like Twitch's own documentation and social media posts.

Here I would like to give a sense of how the transition from data collected from the observation of Twitch streams come across to the genealogy of capitalism that I've discussed in the first chapter. This will also provide an explanation to the appearance of the grounded theory in relation of Twitch and late capitalism's value creation methods. Firstly, the design elements that I've noted are omnipresent in all of the channels that I've watched. For instance, "channel points" is a built-in feature that unmistakably present itself under the built-in chat windows and *provides* points to the viewers every 10 minutes or so. I've also come across Twitch advertising this feature in its social media accounts.

Platform studies perspective consider affordances, as conscious choices of the platform owners that can surface their desires. As *channel points* is a built-in feature, I considered this as central to my understanding of Twitch and unpacked how this feature was unleashed by taking notes on its usage on my second round of data collection. During the coding process this feature has emerged under the *exploitation through engagement* heading since it is primarily a tool that pushes

audience members to interact with the platform by pushing them to engage in a gamified experience.

The *engagement* category emerged mostly from the user interactions with and within the platform and it mostly relies on my observational notes that I've took of live streams. While user engagement is visible, the affordances and the dynamics that push users into engagement are not immediately visible during live streams. So, I've tried to pin down a few of the other actors who are influential but directly act under the auspices of the platform capitalists. To develop an understanding of how platformization is unleashed as a force that move the ways in which user interactions and aspirations are directed, I decided to follow how Twitch ushers/steers/limits other actors who demonstrate a more deeply ingrained relationship with the platform.

As listed in Table 1, these actors who simply establish a much deeper involvement with the platform, might also expect some sort of return in the form of financial renumeration or reaching larger audiences or other simple gratifications like name recognition. In any case, I've considered game developers or extension developers as actors who are exploited through their deep engagement. This category arose by mostly following the other actors and the platform's vetting of these actors. Here, the procedure that I've followed is finding the documentation and content that canalizes these actors into the platform owners' expected outcomes which is the generation of surplus value for the platform capitalists as detailed in the first chapter.

This thesis' aim is to put forward a basic genealogy of capitalism in relation to transformations in value creation methods that now cherishes information and how Silicon Valley companies were able to master this as a business model and ideology. Such an approach that is heavily concentrated on political economy will be helpful in unearthing business practices and commercial strategies. Nevertheless, I would like to indicate potential gaps in this approach by quoting Moe, Poell and van Dijk Reddit: "The intricate ways in which social media technologies and creative user/audience practices articulate each other are not

captured by political economic research." (2016, p. 101) This is why I've also collected audience members' reflections from forums like Reddit and Discord, social media sites like Twitter and Instagram, live chat and donation messages during Twitch live streams and from my informal talks with audience members.

I've taken notes after my chats with audience members in a series of Twitch meetups called #Kalkgel in 2019 at Zorlu PSM in Istanbul. I've attended three times to this monthly series where popular streamers met up with fans. The minimum age for entry was 18 and my notes consist of general impressions and quotes from the fans. The notes are anonymized and there's no voice recordings. This part of the research is in no ways claims to be representative. Still, I used this input along with other sources that I've collected online in order to vocalize the Twitch audience which, otherwise, might be considered as helplessly exploited by the platform. In other words, these inputs give the younger generations that actually use the platform voices here and there to provide context.

3.2. DEFINING AGENCY, ENGAGEMENT AND ACTIVE AUDIENCES

To study exploitation in Twitch and how it relates to profit maximization through surplus data generation there is a need to concentrate on how this data is being extracted. We have already established that the engagement with the platform means generation of surplus data. And such engagements are inherently related to human agency i.e. the capacity of humans to act in a setting. To establish this, the section will start with an overview of sociological and political discussions on agency. (3.2.1) Then, an overview of how active/passive audience perspectives is discussed in audience studies will take place (3.2.2) since we are directly establishing a connection between active participation and exploitation. These discussions on *produsage* and *convergence culture* will be followed by how various fan cultures come to be exploited by the conglomerates. (3.3.3) Finally, the section will conclude by how engagement with the digital platforms are conceptualized with a particular focus on the procedural ways that the platforms employ to push people into engagement. (3.3.4) So overall, this section is distilled from a meta level

discussion of human will towards a debate on whether our online interactions in digital platforms are channeled towards exploiting us in the pursuit of generating of yet more data points.

3.2.1. What Is Agency?

Agency is inherently situated in sociology. Anthony Giddens plainly describes it as "a capacity to make a difference". (p.14) Bourdieu underlines its' importance in his theory of practice, on his take on *praxeology*, that is the theory concerned with human action or practice. It is etymologically derived from the Greek word *praxis* that means purposeful action and *logos* which means word or thought or principle of knowledge.

Bourdieu's conception of *habitus* covers all aspects of internalized beliefs, modes of conduct and opinions which make humans social beings. So, Habitus is "a system of dispositions, which is effective in everyday thought, perception and assessment practice" (Prommer: 21 quoted by Eichner, 2014). Even though habitus entails various pre-loaded ways to act in certain situations the same knowledge and resources can be used in creative and radical ways. "The practices produced by the habitus [are] the strategy-generating principle enabling agents to cope with unforeseen and ever-changing situations" (Bourdieu 2009: 72). This points out to the transformative power of agency. So, the habitus model can both create improvisational approaches and bring about change but, in most cases, as the decisions stem from older practices that are immersed in inequality, the agentive (i.e. transformative) aspect falls behind.

Giddens reminds us that even the predisposed human actions are conditioned by what he calls *practical consciousness.* This is tied to the fact that actions unfolding over time as a "durée" (Giddens, 1986, p. 3) resulting in "actions and structure recursively condition[ing] each other and pre-suppos[ing] each other" (Eichner, 2014, p. 28). Thus, while social practices recreate social structures they also have the potential to bring about social change and transformation.

While comparing Anthony Giddens' *structuration theory* to Bourdieu's *habitus* it is possible to observe the former's underlining of self-reflectiveness that comes to the fore via *discursive consciousness*. One can argue that Giddens' subject can act in a more "rational" way over the course of history. He maintains that the agents have an understanding about the grounds of their actions with the *could have acted differently* faculty. Furthermore, Giddens' notion of intentional and unintentional actions and unintentional consequences can be of use for this study. He gives the example of a man who simply switches on a light. By this act a burglar becomes visible and goes to jail (Eichner, 2014, p. 29). So, the man's unintentional action gives birth to an unexpected outcome. In this sense a simple act of creating a web meme just to be funny can radically reproduce an act of resistance to the firmly established social structures. On top of that, the same goes for the institutional decisions ranging from education to agricultural subsidies as they can generate a manifold of consequences unforeseen by the decision makers.

But how to make sense the actions of people when they face unforeseen situations? Bourdieu's habitus tells us that people rely on their particular dispositions when faced with unanticipated and ever-changing situations. Hans Joas (1996), in a more flexible way, replaces dispositions with "action routines, schemata, and scripts which help individuals to cope with upcoming situations" (Eichner, 2014, p. 31) This means that whenever actors are faced with a new medium, unknown genre or style they can adapt to it with creative evaluation: "Creativity of action for Joas is thus not concerned simply with acts of free creation, but with the flexible and creative handling of situations. Through this creative process, existing norms and values can be reinforced or resisted." (Eichner, 2014, p. 31)

The concept of participation goes hand in hand with discussions on the nature of agency. Participation is often tied to the notion of democracy in the political realm and situated around negotiations on how power is distributed among members of any group. Carpentier defines participation as "a political—in the broad meaning of the concept of the political—process where the actors involved in

decision-making processes are positioned towards each other through power relationships that are (to an extent) egalitarian" (2011, p. 31, quoted by Literat, 2016, p. 1788) This key definition puts the marker on the ability to shape decisions in a bid to point out what meaningful participation might be. Hence per this definition, if any act of participation is not affecting a decision it can't be counted as a real participation as such. Arnstein rightly warns us about the dangers of participation without redistribution of power as an exasperating ordeal since "It allows the powerholders to claim that all sides were considered, but makes it possible for only some of those sides to benefit." (1969, p. 216)

3.2.2. A Discussion of Active/Passive Audiences

On the other hand, wouldn't that be a frustrating experience to expect a policy changing decision for every single act of participation? It is evident that not all participation can result in a policy change or a social transformation. Especially since the digital age offers us countless instances of agency in the crossroads of "socially and technologically embedded media practices and experiences." (Kaun et al., 2016) So activities such as creating memes, tweeting, and all kinds of engagement with media and popular culture are deemed as participation by different scholars, like Bruns as *produsage (2007)* and by Henry Jenkins who describes these acts as *photoshop democracy* (2006), *convergence culture* (2008) and *participatory culture* in various works. In his conception of participatory culture

> [*t]here is relatively low barriers to artistic expression, and strong support for creating and sharing one's work with others; its members believe that their contributions matter, and feel some degree of social connection to one another. (Jenkins et al., 2006: 3)*

Deuze sees digital culture as an emerging system of values and expectations that revolves around practices of participation, remediation and bricolage (2006). These processes are indications of political agency and underline the importance of posing questions about how social actors reproduce, reorganize and challenge structures in digital millieux.

Pateman in her 1970 work *Participation and Democratic Theory* touch on the need of a *social training* for maximum participation. This training will take place not in the immediate political realm but in other domains like work, arts and culture. Her emphasis on the education of participatory practices is valuable as this might serve as an internalization of participation in general. Furthermore, as Literat reminds us, if applied to today's digital media landscape "online spaces that facilitate participation can be considered to fulfill this educative function as well." (p. 1788)

One can argue that Pateman's theories on the significance of each act of participation have been somewhat materialized by the proponents of *convergence culture*. Scholars associated with convergence culture argued that today citizens are not only consumers of media products but they also join in as content creators which effectively challenged "the top-down tyranny of the media" (Gross, 2009 quoted by Bird, 2011). In a similar tone, Clay Shirky emphasizes mass collaboration in digital media as a main societal driving force that shook the media professionalism's status (Carpentier, 2011, p. 526). This scholarly optimism has culminated into the mainstream media with *Time Magazine*'s choice of person of the year in 2006: *You*.

Since then, the idea of a democratized public sphere brought forward by social media sites has been criticized especially in terms of claims of *produsage*. José van Dijck (2009) reminded us that only a tiny proportion of television viewers are participating in content creation and for what it's worth tech companies are more interested in the user's role as a data generator than her role as a content provider. The latter point is a notice on potential use of active audience enthusiasms by marketers that are seeking to sell more effectively. Additionally, scholars like Elisabeth Bird (2011) wondered whether the academic emphasis on web 2.0 is crowding out considerations of other mediated practices and activities. Lastly, the transformation of audience's leisure time into free labor has been also documented (Fuchs, 2014; Terranova, 2000).

All in all, Jenkins' somewhat optimistic take on digital media has been subject to many stress tests, - a special issue of *Cultural Studies Journal* was

devoted to *Convergence/Culture* and Jenkins had to tone down and remind the readers more cautious lines from his prior writings, claiming that in his reasoning there was always a critique of give-and-take between top-down business and bottom-up consumption (Jenkins, 2014). And he calls for action for more participatory web spaces: "The terms of participation are very much up for grabs, though, and will be shaped by a range of legal and economic struggles unfolding over the next few decades." (2013, p. XIV)

Jenkins and Carpentier have debated on a definition of meaningful participation in digital media platforms. The discussion cites interpretation, media production, curation and circulation as indicators of participation. While there is an extensive discussion on whether reposting an article can be considered as meaningful participation, what matters for this study is that there is a portion of the audience/fan communities who wants to join in the discussion and actively participate by any means possible. For most, the level of meaningful participation might be no more than a secondary fulfillment and the attention that they're getting could be the real deal.

Rob Walker in his study of word-of-mouth marketing found out that most of the people who signed up voluntarily to promote a particular product just wanted to be part of something larger than themselves (2008, p. 188). Burgess and Green while describing the motivation behind online video making detect discourses of fame, stardom, and "getting noticed" (2009, pp. 24–25). In other words, some of the active participants are just "seeking 15 minutes of fame." (Lahey, 2016, p. 642)

3.2.3. Fandom and Active Participation

A wide variety of people are called fans. Followers of different cultures, practices, interest areas and supporters of sport clubs or devotees of fictional media are among those. Fans, their practices and their cult objects have been the center of attention of a sub field called fandom studies which describes the fan as:

> *a person with a relatively deep, positive emotional conviction about someone or something famous, usually expressed through recognition of style or creativity. He/she is also a person driven*

to explore and participate in fannish practices. […] They inhabit social roles marked up as fandom. (Duffett, 2013)

There is no doubt that fandoms have become an increasingly social and cultural phenomenon in the last few decades. From the mid-90's on, with the advent of the Internet, even more people engaged with their fandoms with availability of online portals, forums or threads dedicated to specialty topics such as extended Star Wars universe or Civilization mods. Yet fandom have not simply emerged because of the internet culture and "many of the digital activities that fans engage in the digital environment are similar to the analog activities from years past." (Booth, 2018)

From cultural studies to media studies there has been a push of seeing fans as more than mere consumers of "their commitment to construct elaborate interpretations of their cult objects of consumption" (Fuschillo, 2018, p. 2). Thus, fandom is perceived as something not just about consuming or following up a speculative media item. Having different interpretations of a given work or event related to fandom is also seen as an integral part of the fandom.

As the Internet offered new ways for some people to share what they are creating, the proponents of convergence culture have defined fans as active participants. Overall, by creating fan fiction, remixing or discussing the objects of their fandom in various media they were hailed as those who are influencing culture in unprecedented ways (Jenkins, 2008). This take has been found problematic for many reasons ranging from the disregard of political economy to how companies were able to create a false sense of participation to engage the fans with the commercial products that they were offering.

Still, over time the derogatory meaning of the term "nerd" has changed. Amongst other things, this is tied to portrayal of people engaging in fannish practices in movies and literature, the rise of Silicon Valley companies whose bosses were often times fitting the stereotype coupled with social media platforms' affordances that made it easy to share and discuss. While a positive understanding

of fannish practices found its way into the mainstream a discussion of how companies exploited this relationship started to emerge.

On the whole, a significant part of works related to fandom discussed the phenomena in terms of interactivity and the active fan engagement. This approach has been criticized across the board in terms of *produsage* (Bird, 2011), *digital labour* (Fuchs, 2014) and issues related to gender, race and media industries' exploitation of fans (Stanfill, 2019). Although I will be discussing some of these reservations below in terms of participation in general, there's a need to clarify that fandom studies in general "potentially offers rich insights into media consumption, identity, textual engagement and communications." (Bennett, 2014) And recently we're seeing that the field is providing glimpses into questions about culture and society in general.

The paradigm of the fan as the active participant to the cultural sphere and the fans as mostly progressive minded people might have been deconstructed in some circles but marketers are still making the best out of the fan 'participation' in terms of financial gains. Historically, the fan participation and experience is laid out in three key phases (Sturm, 2020, p. 2). Firstly, in the legacy televisual landscape, where the viewers are said to be "passive" more and more people started to engage in pseudo-participatory experiences through second screens and other technologies.

Secondly, this "assumed" interactive participation through social media sites and franchises' own platforms are said to create more connectivity, personalization and networking across digital fandom. These experiences are of course heavily corporatized and the outpoured data is again used for the benefit of the franchise owners, advertisers and Silicon Valley companies. And lastly, with the emergence of virtual technologies as consumer products new forms of *immersive participation* is said to dominate the fandom. This latest phase "may ultimately reposition fans as e-participants" (2020, p. 2) with, for example, sports fans watching a game from the point of view of their favorite player.

Fan studies' conceptualizations on sports fans consumptions are valuable for this study. The transformation of the sports fandom into a reduced version of the "authentic experiences" has been chronicled as a process of "commodification and mediation rather than direct engagement around traditional and locality-based fan practices." (Sturm, 2020, p. 3) This shift in experiencing the fandom coincides with the establishment of the English Premier League in 1992.

Fans' consumption of franchise apparels fit in this category as fans portray their identity and membership to a particular sporting community by wearing jerseys, scarfs etc. Sturm maintains that these purchases "facilitate their entry, demonstrate their knowledge and enhance (or advance) their status in different fan communities" (2020, pp. 3–4). Thus, consumption flows through the fandom as it allows the fan to "enact, be immersed in, and embody her/his fandom through the blurring of fan, self, performances and performativity founded on consumptive acts". This conceptualization is dubbed "performative consumption" (Hills, 2002) and may be very useful to describe audience members' consumption habits on their favorite Twitch channels.

The digitized fan experiences that spill over to second screens in sports fandom is a development linked to the fan-as-interactive-participant (Sturm, 2020). These digital platforms offer ways to usher fan experiences where they can express their ideas playfully and attach to communities. On the other hand, these experiences are closely linked to practices of surveillance capitalism because any digital interaction that the fan is engaging in is creating data points for corporations to exploit. So, it is a further problematization of fan and the club/franchise's relationship.

3.2.4. Defining Engagement

The interactivity is defined as the user's ability to alter a medium's content instantaneously. In legacy media, the interactive options are no longer than changing of channels, adjusting the volume or switching the device on/off. Digital platforms offer ways of interacting with the content. As stated, not all engagement

carry a meaning in terms of political participation but interactive functions are enjoyed by most of the users of digital media.

In fact, a meta-analysis that covered 63 studies on web interactivity has found that interactivity was significantly correlated with user enjoyment, positive attitudes, and desirable behavioral intentions (Yang and Shen, 2017). Thus, users associate interactive gimmicks with positive sentiments. However, the same analysis found that the "interactivity did not necessarily increase cognitive elaboration, knowledge acquisition, and information recall" (2017). Therefore, we can relate the interactivity to mostly enjoyment rather than cognitive capacities.

There's a need to establish another layer of correlation. This time, between user enjoyment of interactivity and digital platforms' push for more user engagement and interactivity. Undeniably, not every user is trying to interact with the social media platform that they are using. In a traditional sense, they can *just* watch or read the content which is also creating data for the platform conglomerates. On top of that, in order to harvest more data about users, platforms created novel ways for audience engagement.

Implementation of the *like* button across social media is a prime example of how companies thought us to engage in a way that is now considered routine. Companies used this data to acquire more knowledge about what kind of content that the users are interested in and also establishing their socio-economic stature and political/ideological leanings along with their connections to others. The implementation of like button by Facebook in 2009 later resulted in the dissolution of chronological news feeds in all social media sites. The rollout of 'personalized' feeds which was developed to capture our attention about the topics that we've demonstrated that we are interested in. The like button also epitomizes the surplus value creation in social media companies' quest for accumulation of valorizing information.

Similarly, the simple act of following a channel on Twitch or YouTube provides valuable information for the platform in terms of what kind of content to offer to users with similar preferences, resulting in people spending more time in

the platform and eventually, the platform sells more ads and extracts more data. Pasquinelli's (2014, p. 15) reading of big data practices is fitting here too. By harvesting data based on interaction, live streaming platforms can measure value of social relations, improve their machine intelligence systems and forecast some mass behaviors.

The concept of engagement is valuable for market researchers and media organizations because they depend on such metrics as clicks and shares to convince advertisers and investors. This perspective that records all the quantifiable ways of engagement has been criticized because it "reduces engagement to those activities that can be captured and analyzed in measurable ways and with measurable market value" (Ørmen, 2016). While this contribution reminds us that the engagement is not a solely digital act, the fact that tech companies reduce our engagement to exactly that and generate profit through this is worth remembering.

Picone and his colleagues made a recent contribution to the understanding of engagement. They have outlined a term that they call *small acts of engagement (SAOE)* which is different from Carpentier's definition of acts that involve political participation (Carpentier, 2011) but nevertheless connects with a description of engagement "as a meaningful, mundane practice in everyday life, which serves as an important way of connecting to politics and the public world." (Picone et al., 2019, p. 2015) The authors maintain that the SAOE does not ignore concerns related to political economy and the data harvesting processes. They consider that calling these acts engagement is a conscious choice that signify a "more active use of media than consumption or reception, which implies a solitary process of sense-making". They then continue defining engagement as "processual and responsive acts" that entails a combination of "activity and energy" that requires an "investment" on the part of the user (2019, p. 2016).

They acknowledge such small acts of engagement as valuable because it shows what people pay attention to and how they act or not act upon such attention. In short, they found that SAOE does not constitute insignificant pieces of information and/or number of likes to a video on Twitter. According to Picone et

al., it provides information about cognitive and affective involvement with the media content. This conceptualization tries to remind us the human agency in our interactions with social media sites.

Nevertheless, their take does not elaborate much on how the tech companies go to extreme lengths to make us engage with their platforms. Social media sites' layout, affordances and algorithms are designed to engage as much as possible. We now click and scroll those apps with such colloquial ease that we don't even remember what we've liked or followed. Accordingly, our newsfeed is flooded with exciting, funny or beautiful things and the reason behind a post's acquiring of much engagement is most of the time related to how algorithms are programmed to increase the reach of the post because it might generate engagement.

In Twitch there are myriad ways that the platform pushes the viewer to interact. These engagements are not just a part of the platform experience but also seamlessly integrated to the content (e.g. the streamer asking the audience which game to play). Thus, in Twitch the conceptualization of SAOE is helpful in the sense that it defines the interaction on the platform as not participation in the political sense but some form of connecting to the public world. But Twitch as the gatekeeper for this connection to the public world for many of its users invent ways to increase the users' engagement with the platform.

3.2.5. Section Summary

In the sociological understanding of agency there is a discussion about the emergence of transformative power. In Bourdieu's *habitus* model there are improvisational approaches that could bring about change but, in most cases, as the decisions stem from older practices that are immersed in inequality, the *agentive* (i.e. transformative) aspect falls behind. In Giddens, actions unfolding over time as a "durée" (Giddens, 1986, p. 3) result in "actions and structure recursively condition[ing] each other and pre-suppos[ing] each other" (Eichner, 2014, p. 28). Thus, while social practices recreate social structures, they also have the potential to bring about social change and transformation. Giddens maintains that the agents

have an understanding about the grounds of their actions with the *could have acted differently* faculty.

According to a reading of Joas' conception of *creativity of action*, (1996) whenever actors are faced with a new medium, unknown genre or style they can adapt to it with creative evaluation. In terms of participation, Carpentier's definition puts the marker on the ability to shape decisions in a bid to point out what meaningful participation might be. Hence per this definition, if any act of participation is not affecting a decision it can't be counted as a real participation… Still, it is evident that not all digital participation can result in a policy change or a social transformation.

Nonetheless, activities such as creating memes, tweeting, and all kinds of engagement with media and popular culture are deemed as participation by different scholars, like Bruns as *produsage (2007)* and by Henry Jenkins who describes these acts as *photoshop democracy* (2006), *convergence culture* (2008) and *participatory culture* in various works. Similarly, building on Pateman's work, (1976) today's digital media landscape's engagement possibilities could be considered as fulfilling an educative aspect to democracy. Nevertheless, the idea of a democratized public sphere brought forward by social media sites has been debunked. José van Dijck (2009) maintained tech companies are more interested in the user's role as a data generator than her role as a content provider. Further scrutiny has been unleashed on social media platforms' potential for democracy and participation via issues related to bots, hate speech and online abuse.

There is an extensive discussion on whether reposting an article or commenting on a YouTube video can be considered as meaningful participation. What matters for this study is that there is a portion of the audience/fan communities who wants to join in the discussion and actively participate by any means possible. For most, the level of meaningful participation might be no more than a secondary fulfillment and the attention that they're getting could be the real deal. In other words, some of the active participants are just "seeking 15 minutes of fame." (Lahey, 2016, p. 642)

The paradigm of the fan as the active participant to the cultural sphere has been deconstructed in social sciences but marketers are still making the best out of the fan *participation* in terms of financial gains. Historically, the fan participation and experience is laid out in three key phases (Sturm, 2020, p. 2). Firstly, in the legacy televisual landscape, viewers are considered to be "passive". Towards the end of this initial phase audiences started to engage in pseudo-participatory experiences through second screens and other technologies by texting, tweeting, joining forums and online groups etc.

In the second phase of fan participation, franchise owners, advertisers and Silicon Valley companies started to corporatize and commodify these "active participations" by making use of the outpoured data. And lastly, with the emergence of virtual technologies as consumer products and with modular structures of digital platforms new forms of *immersive participation* will dominate the fandom. For example, sports fans will be watching a game from the point of view of their favorite player receive statistics about an athlete's weekly training, receive exclusive content algorithmically tailored for them. The immersive broadcasts would perfectly suit the technical capabilities of Twitch.

Today the consumption flows through the fandoms as it allows the fan to "enact, be immersed in, and embody her/his fandom through the blurring of fan, self, performances and performativity founded on consumptive acts". This conceptualization is dubbed "performative consumption" (Hills, 2002) and may be very useful to describe audience members' consumption habits on their favorite Twitch channels. Overall, for fandom in general, digital platforms offer ways to usher fan experiences where the fans can express their ideas playfully and attach to communities. On the other hand, these experiences are closely linked to practices of surveillance capitalism.

The interactivity is defined as the user's ability to alter a medium's content instantaneously. We can relate the interactivity to mostly enjoyment rather than cognitive capacities. In a traditional sense, social media users can *just* watch or read the content which is also creating data for the platform conglomerates. In order to

harvest more data about users, platforms create novel ways for audience engagement. Pasquinelli's (2014, p. 15) reading of big data practices is fitting here too. Data based on engagement offer live streaming platforms ways to measure social relations, improve their machine intelligence systems and services and potentially forecast some mass behaviors or consumer tendencies.

According to a conception called *small acts of engagement (SAOE)*, online engagement is described "as a meaningful, mundane practice in everyday life, which serves as an important way of connecting to politics and the public world." (Picone et al., 2019, p. 2015) Nevertheless, it does not go over the lengths that tech companies go to make us engage with the content. Social media sites' layout, affordances and algorithms are designed to generate engagement as much as possible.

In Twitch there are myriad ways that the platform pushes the viewer to interact. These engagements are not just a part of the platform experience but also seamlessly integrated to the content (e.g. the streamer playing a game based on a choice coming from a viewer's Channel Points). Thus, in Twitch the conceptualization of SAOE is helpful in the sense that it defines the interaction on the platform as not participation in the political sense but some form of connecting to the public world. But Twitch as the gatekeeper for this connection to the public world for many of its users invent ways to increase the users' engagement with the platform. The next sections will look into these different ways that encourage users to engage with the platform.

3.3. EXPLOITATION THROUGH ENGAGEMENT IN TWITCH

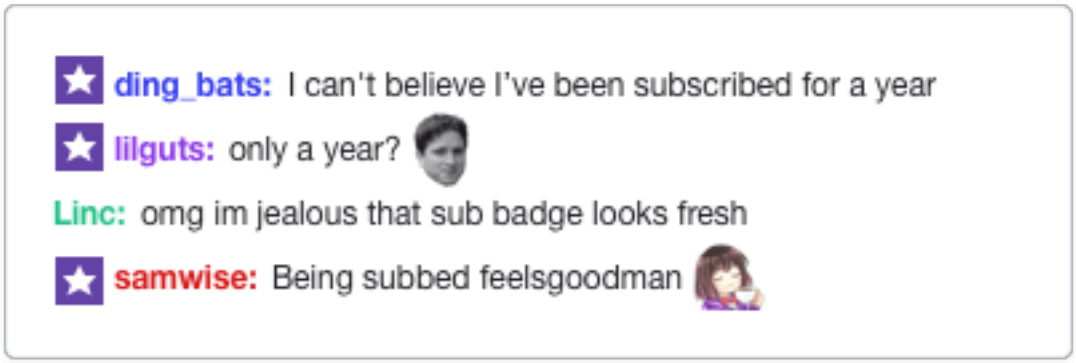

Figure 3 Twitch's promotion of subscription functions. Taken from https://www.twitch.tv/subs *(accessed on 5 September 2020)*

On this backdrop of the intricacies of agency, participation and engagement comes the audiences seen as vulnerable, confused or powerful. They may or may not be one of these things. For the big tech companies that own live streaming platforms, what they are is a future prospect of holding to large numbers of users that they can index historically. Twitch is, suitably, dominated by millennials (born between 1982 and 2004). According to LifeCourse, "49% of Twitch traffic coming from 18- to 34-year-olds." This makes Twitch more successful at addressing to this young "demographic than Facebook, YouTube, or ESPN and on par with Reddit." (Fortney, 2019)

The companies know exactly why live streaming is exciting and became a part of millions' daily routine. While the audience members' objects of fandom (games, streamers) are showcased live on Twitch they can simultaneously interact with streamers and fellow viewers. The nascent discourse that is created belongs to the streamer and the audience/community. The platform's central concern is not just keeping more people watching but also pushing them to interact.

These interactions might directly involve a monetary transaction from the viewer to the streamer and/or platform like donations, cheering, subbing, etc.. Moreover, they may seem as not directly related to a monetary transfer like chatting, channel points, etc. This latter set of interactions are designed and rolled out to increase viewers' time spent and engagement with the platform. And when people

spend time in the platform, they exhaust data that platform conglomerates turn into audience metrics that they lease to advertisers, improve the services and so on.

This section about how Twitch exploits via engagement will first begin with what I call *pay-per-participation*, (3.3.1) a method of monetization of engagement on Twitch. It will be followed by gamification practices (3.3.2) that are linked to surplus data generation. I will then be discussing how Amazon developed a membership program called Prime (3.3.3) to box the users in different Amazon-owned services. The last subsection will be dedicated to how these different engagement metrics are being used to squeeze out more data and lead to people eventually engaging more with the platform (3.3.4) constituting a recursive relationship.

3.3.1. Pay-Per-Participation

The broadcasting industry has implemented various forms of subscription-based services known as pay TV, subscription TV or premium channels. These encrypted broadcasts were de-encrypted at a subscription fee. And before that, in late 1940's pay-per-view (PPV) was first used to re-sell boxing tickets to sold-out matches by broadcasting it live into select theaters. Later, PPV has been a success on both cable and satellite TV. Finally, with the advent of the Internet new on-demand services has sprouted where you can pay for a sporting match or a movie to be streamed to your digital device. On the subscription side, video services such as Netflix and Hulu are the prime examples of paid monthly services.

On the other hand, in the last 10 years videogame industry has been transformed by a new model called free-to-play (F2P) (Nieborg, 2016). Developers, rather than selling a game upfront started not to charge anything beforehand. Contrary to pay-to-play games, their method of making money depended on a combination of data collection, advertising, selling digital goods such as in-game items, skins (character costumes) and loot boxes (real world equivalent of lottery scratch cards) (Macey and Hamari, 2018). This model that depends on micropayments has transformed not just the gaming landscape but also the customs of the gaming aficionados.

Livestreaming platforms like Twitch and YouTube Gaming are free-to-watch. Any visitor to those sites can watch unlimited hours of gaming content as long as she doesn't exceed the monthly data cap of her Internet service provider. This business model is a combination of data collection/profiling for advertisement purposes and commodified services close to the ones in videogaming industries.

Livestreaming platforms such as twitch.tv and YouTube Gaming, by combining these two models have become global web giants, sound investments for their parent companies. Being able to harness the data of millions of users worldwide is indeed very valuable in terms of knowledge and eventual revenue making. This trend can be observed in other web platforms and the cookies planted on many websites throughout the Internet as well. Collection of personal data, preferences and habits to be used for corporate aspirations is near all-encompassing. But platforms like Twitch is establishing a direct monetary relationship with their users in terms of monthly subscriptions to specific channels or one-time cheers (tips) to streamers. This puts Twitch in a unique position since other social media platforms that belong to other conglomerates such as Facebook or Google don't try to charge for an extra or special service.

Google, famously, offers popular services such as Google Drive, Gmail or Google Calendar *free of charge* to, notoriously, push people into providing various data about their habits, whereabouts, etc. Same thing goes for Facebook where you can launch an event page for a gathering and keep people updated without *directly* paying anything. The company charges businesses and organizations on Facebook and Instagram to run ads. Users are not pushed into paying for any extra services to make them feel that the service that they're using is *completely without a cost*.[3]

[3] In 2012 Facebook implemented a charge of 1 $ to send a message to someone who's not in your friends list. At the time some users complained that Facebook is breaking away with its promise of being "free" ("$1.00 to send a message to someone who is not in your friend list.," 2012) while some critics maintained that Facebook rolled this to push people into registering their credit card details to the site "to encourage impulse purchases." (Tam, 2012) Google charges for

People who pay for the extra services in live streaming ecosystem are young people who are accustomed to purchasing stuff on free-to-play games. This experience of buying digital goods from a free-to-play game might be just the right explanation for the behavior of purchasing additional subscriptions on livestreaming platforms since most users are skeptical to this on more *traditional* social media sites like Facebook. One of the first affordances that users start to use on twitch.tv is the right to use special emoticons and badges that appear next to the nickname in a channel's chat screen. Or the very right to be able to type something to the live chat while *subscriber-only* mode is on. Furthermore, instant monetary transactions to streamers from the fans are called *donations*, *tipping* or *cheering*. Although the difference in appellation make reference to a particular money transfer system all types of donation serve the purpose of shortcutting the attention economy.

Michael H. Goldhaber has talked about attention as a resource that will become scarcer over time by indicating an abundance of information and messages available on the net: "The attention economy brings with it its own kind of wealth, its own class divisions - stars vs. fans - and its own forms of property, all of which make it incompatible with the industrial-money-market based economy it bids fair to replace." (Goldhaber, 1997) How much this has been realized is debatable because financial markets and conglomerates are still very powerful. This detachment from where capitalism is moving towards in terms of value creation through harvesting of data from mundane digital activities makes his overall argument less relevant. Nevertheless, his case on the appraisal of attention is quite useful for understanding today's digital media landscape in addition to his take on the unequal relationship between the stars and their fans which is super relevant for Twitch streams.

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extra storage for Gmail, Drive and Photos services. But considering the unpaid plan is 15gbs as of September 2018 most end-users don't ever feel the need to upgrade. Lastly, Facebook Gaming has also implemented PPP services similar to those in Twitch.

There is an asymmetry between the streamer's visibility and potential for audience members' participation in Twitch. In popular channels the live audience chat is extremely busy. And the platform's promise of interaction between the streamer and audience members becomes somewhat impossible. Paid functions come into play on those occasions. If a *streamee* makes a donation or *subs* (i.e., subscribes) to a channel this information is advertised over the gameplay screen. Streamers often read out loud in appreciation the nickname of the member of the audience who did the donation or *subbed* along with the attached message. *Cheering* is another way of shortcutting the attention economy with the ability to highlight a message and pin your nickname to the top of the chat.

During my data collection I have come across to various usages for micropayments to shortcut the attention economy. These range from simple show of support to showcasing oneself and also trolling. One particular usage that I've found relevant here is the desire of audience members to send a YouTube link that they believe contains a funny or an interesting video. This kind of link sharing happens mostly on the *Just Chatting* category. For instance, an audience member who enjoys a particular Turkish rap song might want to listen to it along with the streamer. So, she sends a 10 TL donation along with the YouTube link of the song…

The communal watching constitutes shared experiences and bonds the streamer and the audience members into what Twitch calls a "community". On top of that, this shows the asymmetric relationship between the streamer and the *streamees* where the latter needs to pay up in order to be able to watch something that he/she enjoys along with the "community" that he/she is a part of. Similarly, it is also a testament for the star vs. fan relationship where fans are eager to complete microtransactions in order to get the reaction of the streamer about a video. Bear in mind that the fan is keen on getting the reaction of the streamer not only for a video that he/she finds pleasant but also for the annoying or inciting stuff too. This is perhaps linked to a larger trend of reaction videos becoming an important force in internet culture (McDaniel, 2020).

Overall, communal watching of various short videos fits Twitch streams conveniently because of the live aspect of the platform. In the previous chapter there was a discussion about the attractiveness of Twitch, which is tied to it being, amongst other things, an interactive medium. Twitch has implemented toll booths for the most in-demand interactions like getting the streamer's attention and participation to popular channels' live chat.

An earlier study on the asymmetry between the streamers' and the audience members' participation levels found that "[t]he economic exchange is a precursor for a more prominent linguistic and social interaction." (Recktenwald et al., 2016, p. 430) While this is mostly true for popular streams with more than 5K of live viewers it is not always the case for smaller streams where you can chat with the streamer and the other viewers without completing micropayments. Such interactions are what makes these small "communities" appealing but over time if this channel acquires more regular viewers simultaneous interaction becomes difficult because of the congestion in the live chat. In those channels the streamer turns on the *subscriber-only* chat function where only those who pay a monthly membership fee or those who uses Amazon Prime's monthly subscription perk can join in.

The audience members enjoy their names to be read aloud. When someone tips a streamer, the message she sends with it appears on the screen. Sometimes the embedded message is automatically read by a mechanical voiceover function. If the streamer enabled this latter feature through a 3rd party app, the automatic voice over reads the message of the fan no matter what. The streamers make a conscious effort to respond to the messages sent through a donation. The streamer also reads the messages in the chat. In one particular instance when a member of the audience maintained that he asked many times to his nickname to be read the streamer answered by saying "you guys keep writing it many times. I'll see it in chat somehow." It seems that this streamer has found a way to create an active chat flow while also keeping the fans busy by tapping into their enjoyment of showcasing themselves to fellow audience members.

Therefore, the desire to participate in and get attention manifests itself in terms of commodified practices. In an interview conducted with Twitch's senior vice president, Anthony Danzi, the centrality of these transactions and why it matters has been told plainly and through a business perspective:

> *So you literally are seeing them [the streamers] and hearing them, and they're communicating with the community while they're playing the game. […] Where else can you go and have a content experience where you can actually interact with the content creator? And in the case of Twitch, the streamer I watch is a celebrity to me, just as much or even more so than a Hollywood celebrity. So you can actually communicate with this person you idolize in some ways. (Danzi, 2016)*

There is a need to differentiate the video content and other functionalities on streaming platforms. From the average user/streamee's perspective, watching livestreams or recorded videos on these platforms does not come at a direct cost, - if one disregards the personal data collection's benefits for corporations. Anyone can watch streams even without registering as a user and logging-in. On the other hand, most of the in-channel functionalities such as chatting, using channel-specific emoticons are increasingly commodified as paid services. Thus, the streaming platforms employ a model that I call *pay-per-participation* (PPP) which is a derivative of pay-per-view and rely on the desire of interacting the streamers and fellow *streamees* on the live stream platforms.

As mentioned above, over at twitch.tv there are special features reserved only for the paying members. Effectively, this makes twitch.tv a platform that rely on PPP. Some of these are directly controlled by Twitch Interactive, Inc. and others through complementor companies. For instance, non-English speaking streamers are using local intermediary services mostly for their advantages in dealing with the local banks. Partin discussed how Twitch copied the 3rd party tools to its own system, particularly the donation tool that has been mostly associated with Streamlabs (Partin, 2020). Twitch's internal donation feature is called as *cheers* which can be activated by a platform-based virtual good called *bits*. For instance, in Turkey the implementation of cheers as a first-party donation tool was an attempt

by Twitch to take the revenues out of ByNoGame, a local intermediary service which is still used by many. In 2020 Amazon rolled out its own payment services in Turkey along with reduced prices for Prime memberships that will make *cheering* easier for many. I will be discussing Amazon Prime in the following pages of this section.

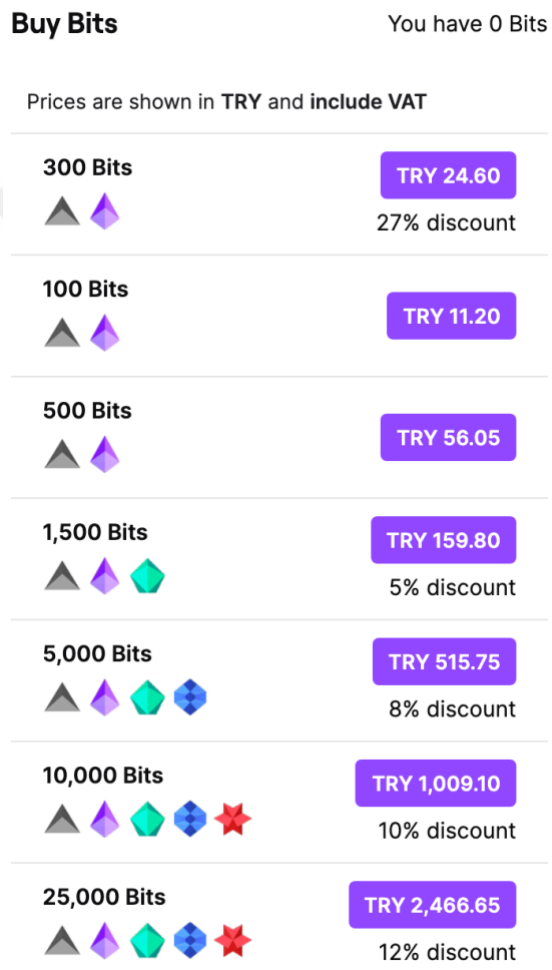

Figure 4 A screenshot from https://www.twitch.tv/bits which shows the various animations that come with cheering

A *cheer* is basically a micro transaction tool activated through a chat message that uses *bits*, which are animated emoticons. Bit emoticons can be used one by one, all at once, or anywhere in between. According to the company "using many at once shows more support and creates cooler Emoticons!" ("Guide to Cheering (Beta)," 2017) Whenever someone cheers (spends actual money) on a

channel her message attached to the cheer stays at the top of chat room and custom permanent in-channel badges are earned through cheering. So, most of the time, donating through *cheers* offers more and longer prominence than using a 3rd party tool.

Overall, first party services are more visible and central to a streamer's success in Twitch and individual channels' paid subscription is one of the most prominent features on Twitch. This is called *subbing*. Although varying from channel to channel the features often bundled in this function are ad-free stream viewing, subscriber badges (subscriber, 3 month subscriber, 6 month subscriber, 1 year subscriber, 2 year subscriber, etc.), subscriber emoticons, chat during *subscriber-only mode*, not being affected by *chat slow mode* and ability to share hyperlinks.

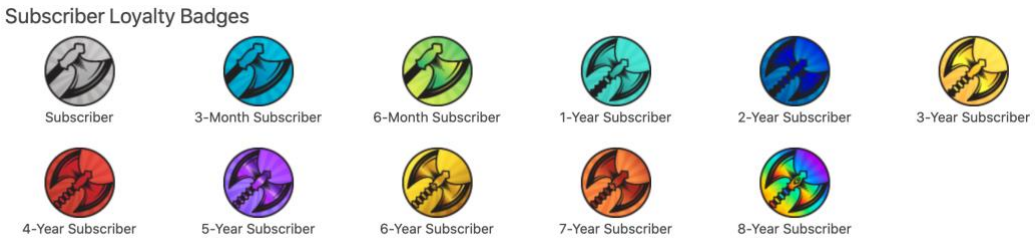

Figure 5 Subscriber badges that appear next to users' nicknames for Jahrein's channel. Taken from https://twitchemotes.com/channels/6768122

These chat specific functions are especially crucial in popular channels with thousands of viewers since the chat flow can become inundated with hundreds of messages sent every minute. These streamers are often putting the chat room to *subscriber-only mode* where only paid subscribers can send messages. *Slow mode* allows the streamer to set a limit on how often users in the chat room are allowed to send messages. Partner streamers can allow their subscribers to bypass the slow mode too ("Chat Commands," 2017). Streamers can also schedule streams that can only be watched by subscribers.

Additionally, streamers have custom emoticons for their channels' subscribers. This is also knowns as *emotes*. A popular streamer by the name of LIRIK who amass around 10-40 K average concurrent viewers per stream with over

2.7M total followers has more than 50 special emotes, often a variation of his cat connoting a plethora of situations ranging from failure (lirikBLIND, lirikF, lirikREKT, lirikRIP) to sentimental (lirikFEELS, lirikHug, lirikThump, etc.). Channel specific emoticons gets updates and subject to various ups and downs in their lifecycles. Either way sharing a relevant emoticon just at the right time increases audience members' stature and establish a defining symbolic marker on the platform. Emoticons are also offering a quick way to react for the audience members during fast paced video game action and the live chat where it would be difficult for others to read a written message.

						
lirikAppa	lirikF	lirikHug	lirikRIP	lirikThump	lirikSCARED	lirikL

Figure 6 A variety of custom emoticons in LIRIK's Twitch channel. Source https://twitchemotes.com/channel/lirik

Some of the emotes are related to inside jokes associated with a particular moment in a channel's history. *Potato aim* is one of them and dates back to an encounter when LIRIK tried to shoot another player riding a bike during gameplay who apparently had a low-quality microphone. Because of the bad sound quality, LIRIK called him "potato mic" and then missed his shots. The guy has shouted "potato aim" back. *Streamees* found this encounter very funny which later on resulted in creation of an emote. ("Potato Aim Origin lirikAppa • /r/DatGuyLirik," 2015) The *potato aim* later on circulated to other channels becoming a slang in twitch.tv.

Proponents of participatory culture cite interpretation, media production, curation and circulation as indicators of participation (Henry Jenkins and Nico Carpentier, 2013). The main question concerning these opposing approaches in participatory research is perhaps: *If devoid of any meaning and/or decision-making capacity can all interaction be counted as instances of participation?* The above discussed activities by the audience members in Twitch are conceivably often times

not participatory in the political sense. But they are linked to interactivity and engagement which is inherently tied to Twitch.

In defining digital media landscape, Lievrouw and Livingstone argue as follows: “immediacy, responsiveness, and social presence of interaction via new media channels constitute a qualitatively and substantively different experience than what was possible via mass media channels.” (2006, p. 8) In livestreaming platforms the audience members can immediately post messages, emoticons, etc. They can get replies from the streamer instantaneously and lastly, they can not only interact with the streamer but with the other members of the audience as well. Twitch by expertly commodifying these experiences has practically installed a tollbooth on what differentiates digital platforms from legacy mass media.

On a meta-analysis on effects of web-interactivity Yang and Shen, by analyzing a huge number of academic research, found “[s]ignificant positive effects of interactivity on user experience, enjoyment, and satisfaction.” (2017, p. 5) There is therefore an obvious correlation between any interaction and enjoyment. Plus, as these streamers are the people that members of the audience look up to and most of them feel that they’re their fans in the traditional sense, any possibility of interaction becomes even more desirable for the audience. The platforms and streamers are willing to monetize this desire. Platforms expertly erected pay walls in front of interactions and ways of self-expressing. In this light, subbing to channels, subscriber-only chat modes, special emotes, badges and donation alerts are made up functionalities to commodify the interactive experiences. These affordances do not only provide cash revenue for Twitch, but such micropayments result in generation of more engagement data which means profit in the form of surplus value.

PPP is a model with myriad implementation options. It takes its cues from fandom in general where companies and marketers have managed to turn participatory practices into commodified ones. Accordingly, acquisition of channel memberships which comes with custom badges that show the others the length of the subscription can also be read as an entry point to the fan community (Sturm,

2020, pp. 3–4). Additionally, for some such acts of showcasing fandom and engaging with the site was not enough so that some 3rd party apps that would offer fans increased interaction with the streamer has been offered.

A startup called Shotcall "allows streamers to set up a tournament, coaching session, Q&A, charity event or whatever type of event they'd like, and fans can pay to get in on the action." ("Shotcall picks up $2.2 million to let fans game with their favorite streamers," 2020) The company's CEO goes on about the gamers as the active participants who has immense power yet somewhat weak interactions:

> *Fans are at the center of the entire global value chain in the gaming world[.] They dictate what games are bought and which content creators rise and fall out of favor. They pay the bills for everything. And yet their interactions are weak. And if you take a look at the data, they have a high desire and a high willingness to pay more if you were to give them what they truly want. And that is engagement.*

This startup's vision relies on the lucrativeness of PPP. In their words they don't claim to offer meet-and-greet services with a price tag with stars, but they offer the engagement that the fans desperately need although he maintains that fans "dictate" the trajectory of gaming culture.

Such discourses mandate a regime of commodified agency where different levels of engagement are desired by the audience members. This *desire* is controlled and manipulated by the big or small companies when they are situated between fans and their objects of desire. Such complementor companies by injecting themselves to this desiring process do not immediately plan on generating cash but want to generate more users and engagement that will provide them with network effects.

For the complementors, the hope is to be acquired by a larger conglomerate that will implement the surplus data generated from this service to its other value generation practices. Accordingly, Streamlabs has been acquired by Logitech, a maker of gaming tools and devices (Peters, 2019). Just to re-iterate, PPP practices do not need to be directly related to immediate profit generation. It is built upon basic forms of engagement, like, when users engage in PPP it increases the

desirability of the platform, the streamer and the whole show because it establishes a scene where there's so much attention towards the celebrity and very few attention that could be given back to each individual fan.

3.3.2. Gamification

Twitch has an audience mostly made up of gamers. They crave for gamified mechanics and the simple acts of watching are turned into small scale gaming experiences on Twitch. In the first chapter under the section of Digital Capitalism, I have discussed gamification in detail in relation to how late capitalism's value creation method employs gamification to harvest more data and push people into spending more time in a given digital space. So, using game design elements in a non-gaming context like watching videos or e-retail is more than harmless fun.

While "many of the ludifying trends suggested being new forms of control and management" (Woodcock and Johnson, 2017) Twitch with its base made out of gamers has developed core functionalities that rely to some form of gamification. These tools are transforming the legacy act of watching into a new media experience with viewers being diverted with something more than the video feed. In this subsection I will be discussing two features that employ gamification methods: Hype Train and Channel Points. The first one is a mechanic that is related to participating in PPP activities in tandem with the other audience members. The second one is a points-based system where points are earned by watching a channel's stream.

In standard parlance, hype is associated with an unwarranted excitement. Media studies has long described media hypes as ephemeral, related to scandal or "self-inflating" media coverage (Wien and Elmelund-Præstekær, 2009). In gaming community, the word hype does not carry these pejorative connotations. It means being excited about something and the process of spreading this excitement. In other words, when someone is "feeling the hype" it is not a solitary feeling, it also includes a transmissive state. "The hype is real" is an idiom about the momentum that is building up that the gamers use a lot. Hype is an integral part of Twitch where the audience members type in or join with hype emojis when something

unexpected, fun or interesting happens on a channel which often increases the messages sent to live chat. These are communal moments of enjoyment and/or excitement and often accompanied by audience members sharing the channel's dedicated HYPE emotes.

In the beginning of 2020 Twitch announced Hype Train as follows:

> *This feature amps up the energy in a channel when there's an influx of cheers, subs, and gifts from a number of unique participants that meets the threshold set by the streamer. Then, the Hype Train kicks off. After it's rolling, your continued support with Bits, Subs, and gifted Subs can take the Hype Train to the next level every time you fill the Hype-o-Meter. Everyone who—to keep this metaphor going for some reason—shovels some coal into the train's furnace by using Bits, Subs, or gifts will be rewarded with a special Hype Train emote if the train succeeds. ("All aboard the Hype Train," 2020)*

Basically, it kicks off with an audience member *cheering* a certain amount with in-platform currency *bits* or through a series of subscription activity. Then the audience members need to donate more bits or subscriptions in the dedicated timeframe to get to the next level which requires more PPP activity. When successful, streamers get new subscribers and bits. Obviously, Twitch is making a cut out of such donations. During a Hype train activity, the channel is recommended by Twitch to other viewers on the platform.

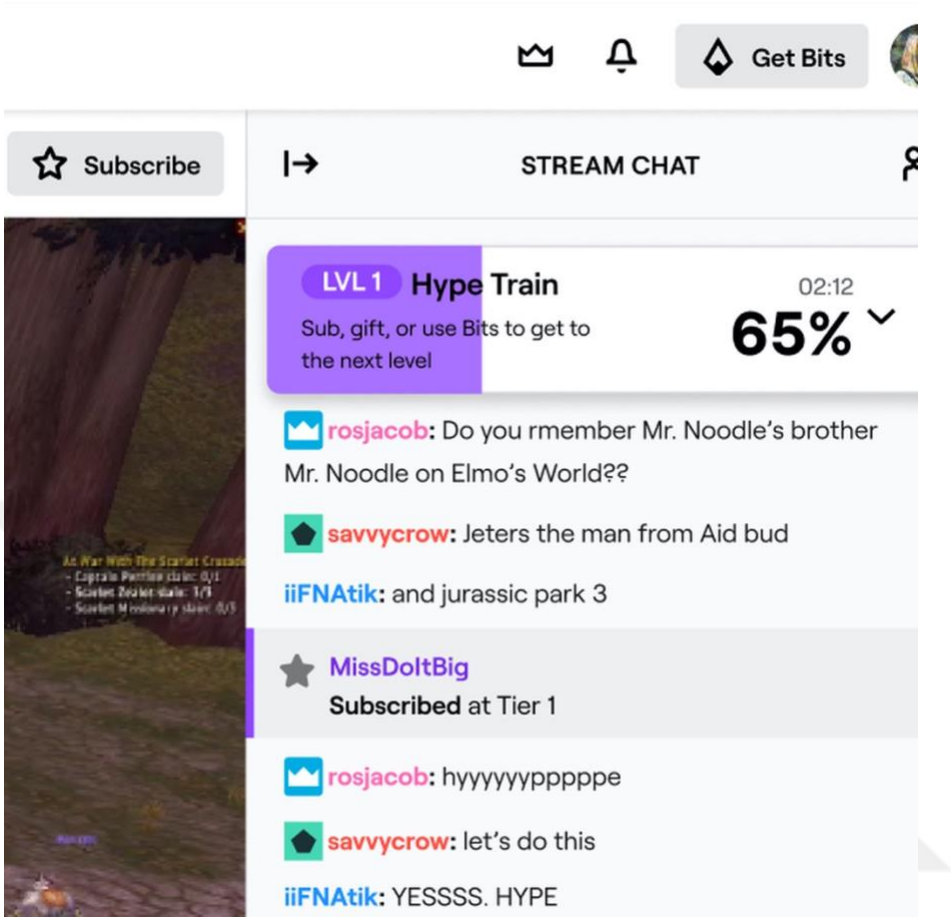

Figure 7 Hype Train Image: Twitch https://help.twitch.tv/s/article/hype-train-guide?language=en_US

Hype Train feature offers a case where the platform has appropriated a community event into a commodified activity. While the serial tipping that happened before the implementation of Hype Train also constituted a form of exploitation there was no visual stimulants or other incentives. Hype Train comes with a percentage indicator and the countdown timer. Both are imposing the audience members to commit to PPP practices. I've observed "successful" Hype Train events that are uploaded to YouTube. In those videos there is a certain rush between a number of fans who send more bits or gift subs in each level. Those fans who donate get Hype Train related badges and their name is overlaid on the screen which certainly contribute to consideration of these acts as performative consumption. Streamers emotionally thank these fans and execute a certain level of surprise.

Although much hyped (Stephen, 2020b) when it first appeared, Hype Train lost its hype later in the year. While some users called this feature as “Scam Train” because how psychologically it pushed people into spending money, others found it “annoying” because it interrupted the narrative of the stream and blocked a portion of the chat screen (“r/Twitch - Why are Hype Trains called Scam Trains?,” 2020; “r/xqcow - Am i the only one that thinks the hype train is annoying?,” 2020). Twitch has not cancelled Hype Train but offered ways for streamers to opt out of it. There was no mention of Hype Train in the Twitch Developer Day 2020 where they usually talk about new Application Programming Interface (API) developments and functionality updates for mostly used features. It shows the intrusiveness of platform’s PPP and engagement increasement efforts. It is worth discussing not because of what it brings or takes away from the platform. Thus, the rolling out and the reception of hype train is relevant because it gives us clues about the platform capitalists’ logic.

Whereas Hype Train is a feature that is designed for the audience members to engage in PPP practices, Channel Points is a feature that became a prominent function on the platform. It is a system where a viewer gains a certain amount of points when they watch a stream. In Twitch’s own words, “Channel Points is a customizable points program that lets streamers reward members of their community with perks, including a taste of benefits typically reserved for subscribers.” (“Channel Points Guide,” 2020) The choice of words like “rewards, perks, a taste of benefits” constitute the façade in front of this attempt of enveloping the viewers to watch more and develop a desire for members-only benefits. For instance, in a top channel when you watch for some time you can collect points for a one time only ability to send a message during members-only chat.

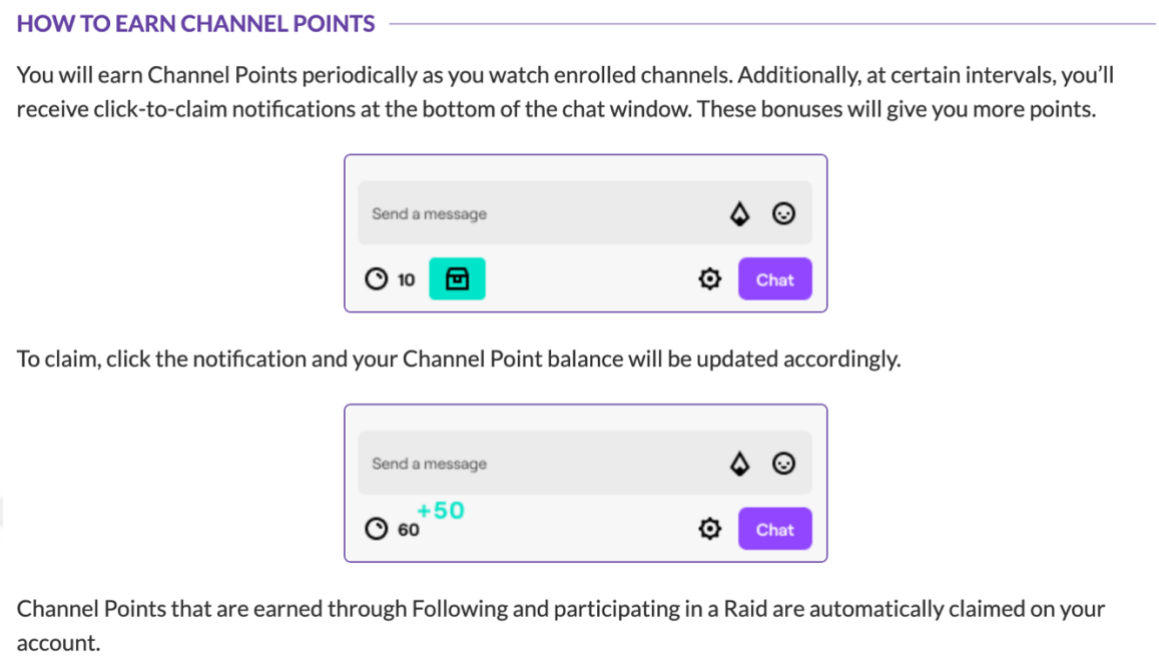

Figure 8 Channel Points https://help.twitch.tv/s/article/channel-points-guide?language=en_US

For every logged in viewer, Channel Points starts to roll when one starts watching a channel. Viewers do not need to turn the feature on. It is always on and attached to chat window. There are different "Channel points earn rates" such as "watching" or "active watching". The former gives +10 points to viewers for each 5 mins of live watch time. The aptly named latter, "active watching" is +50 points for each 15 minutes of live watch time which require the viewer to click to redeem as seen in the picture (Figure 7). *Active watching* in channel points is a bizarre experience where you are trained by Twitch to click a button every 15 minutes to remind the platform (and yourself?) that you are not completely immobile and able to show a semblance to a modicum of agency.

Netflix has a prompt which asks the viewer "Are you still watching?" after a period of inactive binging. In that case Netflix is perhaps first and foremost legitimizing that prompt for preventing unnecessary bandwidth usage if a viewer just turns on and forgets the auto play function. Having said that, Netflix can use user information on binging as a metric where they create surplus data. Twitch, on the other hand, by pushing viewers to click a button every once in a while to redeem points, is manufacturing the "active user" who is ready to engage with the content.

This engagement can manifest itself in the form of “passion”, which is a word Twitch often uses to describe its audiences to marketers (“How to Subscribe,” 2020).

To cast “such “passionate fans” Twitch invites users to come back for a channel’s following streams: “Watch Streak” gives a certain amount of channel points when viewers return for consecutive streams. “1st Cheer” and “1st Subscription Gift” are about awarding channel points for PPP activities. Bear in mind that in these lastly mentioned earning actions, channel points are awarded for the first paid activities to incentivize the fans into entering the realm of PPP.

On Twitch Developer Day 2020, Channel Points’ product manager James Sun did a keynote where he shared information on Channel Points (*Twitch Developer Day 2020*, 2020). According to his presentation, after launching Channel Points a year ago, now it “is in nearly every channel, and the majority of viewers interact with in on a daily basis”. He later gave out data that shows that for streams with Channel Points there’s “an 18% increase in time spent by viewers on their channel” and “a 13% lift in chat participation among the viewers”. So, it seems that the universality of this tool has added yet another element of user engagement by offering a peak into some aspects of channel memberships like sending a message on sub-only mode and unlocking a sub-only emote.

Overall, it is very important as another source of engagement for the non-subscribers since when you’re not subscribed to a channel you don’t have much to do except just watching the stream. Channel points as a gamified mechanic offers new engagement possibilities for the channels that are taxed with subscriptions. In other words, through Channel Points Twitch can harvest engagement data out of those users who are shut out of the platform’s most popular engagement feature: live chat. So, while subscribers to individual channels who typically pay 5 USD a month can use the live chat feature on top channels, a non-sub viewer can “earn” the right to post a message after watching a certain amount of time which typically is one hour. Twitch tries to increase the time spent on a channel not only for showing more advertisements but also for generation of surplus data, the bonding

of audience members into what they call as a “community” and increasing the appreciation of paid features.

3.3.3. The Self-Reinforcing Loop: Amazon Prime

In the previous subsections on engagement the audience members’ interactions on the platform have been chronicled in terms of data harvesting and commodification of interaction on the platform. Here I will be discussing how Amazon, by bundling a series of services, is able to establish a deeper connection with consumers who are eager to engage with Amazon’s various services. Amazon box their consumers through a membership program called Prime and it includes a variety of services. In US there’s the faster than usual delivery, Amazon Music, Prime Video and Prime Gaming. In Turkey it is free shipping, Prime Video and Prime Gaming.

As of December 2019, there are 112 million Amazon Prime members in the US (“U.S. Amazon Prime subscribers 2019,” 2020). This is a considerable number which shows the company’s leading position in US online retail. Bundling various services into one is advantageous for the company in terms of marketing, customer royalty etc. But it also provides a wholistic data collection scheme for Amazon where the company can gather information about what people are watching and listening to and combine those with purchasing information. In terms of Amazon Prime Video, Tiwary detects a strategic approach which makes it impossible to consider Amazon Prime “as a television provider per se, but as a seller of video products densely interlinked to multi-sided markets in retail, advertising, music, data and finance.” (2020)

In a similar way, Twitch’s PPP practices are offered as a part of the larger umbrella of services in Amazon Prime which includes “free channel subscription ($4.99 value) every month to support your favorite streamers. Chat with members-only crown chat badge. Exclusive Twitch chat colors and emotes” (“Prime Gaming,” 2020). In September 2020, Amazon announced Prime’s launch in Turkey. There was a big buzz around the service particularly because of its relatively low price of 7.90 TL (“Amazon Prime Türkiye açıldı,” 2020). The

audiences and streamers over at Twitch were particularly joyous because the monthly channel subscription that used to cost 5 USD is now offered with a 7.90 TL subscription (around 1 USD).

There were even rumors about that the price was set for luring people in and Amazon was going to bump up the price later on. The company made an announcement that the price was set for a long term position ("Amazon Prime'dan 7.9 TL abonelik ücreti açıklaması," 2020). The Prime Membership increased the competition between the partner streamers who wants to get a slice of the free monthly Twitch channel subscription that is bundled with Prime Memberships. It has also affected average channel numbers, i.e., number of streamers. The seven-day average of live channels has seen a steady increase after the launch of Prime Membership ("Turkish Language Twitch Statistics," 2020).

Amazon benefits from this membership program heavily and invest in gaming audiences because it provides a future opportunity for holding onto young audiences. Political scientists Culpepper and Thelen discussed how tech companies like Google and Amazon established a tacit allegiance of consumers by using their platform power which the platform conglomerate than use against the efforts of regulation (2019). According to them, as the consumers enjoy fast shipping, they become indifferent to harsh working conditions on Amazon warehouses. Similarly, the *free* services offered by tech companies make the consumers blind towards the online tracking which constitutes the privacy paradox. Comparing tech companies' monopolization tendencies to the railroad or oil tycoons of the past, they found that "today's tech firms enjoy a direct, indeed virtually unmediated, link to their users, most of whom connect to these firms through devices they carry in their pockets every day." (Culpepper and Thelen, 2019, p. 294)

Prime membership constitutes this deep bond with the brand by injecting young people's objects of fandom (streamers, video games, etc.) into the mix. They watch the series on Prime Video and get gaming related perks through Twitch… While discussing Amazon's 3rd Quarter 2020 earnings, company's Chief Financial

Officer (CFO) Brian Olsavsky is clear on Prime Membership's importance for the company:

> *If we do that job well, we've seen it as a very significant acquisition channel for new Prime members, especially in many smaller countries around the world[.] You see higher free trial conversion rates, higher membership renewal rates and then higher overall engagement, as I mentioned, in Q3 specifically. And when they do that, the more engaged they are, we know that that turns into more sales on Amazon. And that's – it's a self-reinforcing loop. ("Amazon Advertising Surges, And Plans Upgrades Around Twitch, Video And Platform Usability," 2020)*

This quote shows Amazon's strategy which is not to make immediate profits with the membership fees but to tie down consumers with various entertainment services that will bump up their "overall engagement". When the consumers are engaged in the Amazon ecosystem, the engagement is transformed into sales in Amazon's retail arm. Becoming therefore "a self-reinforcing loop". This is conformant with how economists are blowing the whistle about the tech companies' data collection capabilities which then can be used against the entry of new players to the market: "once an innovative firm establishes platform dominance . . . cost and economies-of-scale advantages are almost impossible for competitors to overcome" (Kurz, 2017).

One last point to add about the Prime membership is that the ad-free experience that was bundled into Amazon Prime was removed on August 2018 ("Twitch Prime members will lose ad-free viewing next month," 2018). In order to have an advertising-free access to the entire Twitch service, audience members need to get a separate Twitch Turbo subscription or individual channel subscriptions. Twitch Turbo costs 9 USD a month and also includes exclusive emotes, and chat badges. This development should be considered by Amazon's push into advertising where they sell online advertisement spaces and data to brands. Analysts have argued that Amazon is uniquely positioned to offer services that would measure the impact of advertising done on Twitch or IMDB by linking to retail data from amazon.com.

3.3.4. Engagement and Surplus Data: A Recursive Relationship

In the first chapter on capitalism, I have discussed how digital platforms are generating revenue. On a base level, is the simple act of watching Twitch is similar to watching television in terms of value creation? While an orthodox reading of the act of television watching considers the value creation in terms of unpaid labour of the audiences, I have established that it is not possible to adapt the same eternal conception of labour to digital platforms that can dynamically harvest data and combine it with other assets. What the digital platforms has mastered is the ability to turn human activities into potential sources of surplus value and what Twitch perfected is the ability to increase these human activities on the platform through new extensions and features. The increased human activity on the platform equals more surplus value for Twitch.

Deleuze and Guattari's realization about post-industrial capital's self-positioning between consumption and production fits here like a glove. Consuming Twitch is not only about watching video streams of gaming content. Consuming Twitch content is interacting with various features and extensions on the website. It is the usage of a gifted emote, following a channel, being reminded to say hello to others in a channel by the chatbots to establish a phatic communication with the others ("TwitchCon 2017 keynote," 2017), participating a Hype Train, etc. In other words, engagement with each itsy-bitsy feature of Twitch is a part of consumption on the platform. These consumption activities are transformed into data and then used by the platform conglomerate in improving the production line, i.e.: the user interface, which streamers to support and where to steer them, conducting quality control, performance updates related to geographical destinations and develop and test various revenue schemes.

The previous two subsections laid out some features that Twitch developed in order to generate engagement and/or encourage people in spending money in exchange for some perks. While all PPP activities are directly related to users spending fiat money on the platform, they also create surplus value for the platform. Surplus value in the form of data is generated when audience members become

resolute enough in their willingness to engage even there's a tollbooth in front of the engagement.

So, their involvement in these PPP practices itself create new data points for the platform. This process then can become recursive when platform capitalists use such data to better the PPP services. For instance, Twitch can dynamically monitor which tools and features are in use on the platform. They can then build over or develop additional features. As data shows that Channel Points is a feature that most users engage with, Twitch decided to build an independent API for Channel Points which will make it possible for developers to build new features (*Twitch Developer Day 2020*, 2020).

The transformation in value creation methods while shaping capitalism has also affected cultural production and consumption. While digital platforms' commercial logic is always in need for more interaction this is changing how we consume entertainment content and the television as we know. Twitch is on the forefront of television's transformation into new media for the first time around. This is not to say that Twitch is the first interactive platform. Far from that, interactivity in television has been around for a long time but the platform capitalists' quest of acquiring profit has compelled them to develop this beast of engagement.

Langlois and Elmer, by looking at Facebook observe that it has transitioned from a platform to an infrastructure. Especially, the introduction of APIs to create even more connections in and out of Facebook through 3rd parties and their users clarify this tendency. They indicate that "the logic of social media platforms is to attract users through offering an enhanced communicative experience, to track and collect data, to undertake both large-scale and detailed analysis of such data in order to contextualize it" (Langlois and Elmer, 2018, p. 7). Put simply, in order to be a successful business, Twitch needs to have large numbers of people watching the streams, but it also needs engaged users for creating surplus data to its parent company, leasing the data to advertisers and develop/improve its services.

Because Twitch increases SAOE the content that has been algorithmically privileged (i.e. recommended) are those with increased user engagement. In other words, not all sustained social engagement on the web is meaningful for humanity. In this light, Poell argues that "platformization is not necessarily conducive to a diverse cultural landscape and democratic public sphere." (2020)

To reemphasize, capitalism's new value creation methods have been implemented by digital platforms like Twitch. In order to advance this business model and maximize the profits they need constant intensification of engagement in the platform. They use surplus data in a variety of ways like service improvement and advertising. In Twitch what is interesting for the audiences is not just the gaming content but also the responsive interfaces and new, ever-evolving modes of communication. Thus, the exploitation happens when users are engaging with these tools and services in addition to the attention that they are giving to this platform. All these actions carry "double articulations". In surface, actions like subbing, cheering or other engagements signify communicative acts of entertainment, community or aspiration. But in fact, all these actions are bound to an economic logic.

3.4. EXPLOITATION THROUGH DEEP ENGAGEMENT IN TWITCH

Keeping the audiences engaged and increasing the frequency and variety of this engagement is an integral part of Twitch's business. The previous section laid out how the tools and features were developed in order to squeeze more data out of the users. Here I will further be exploring exploitation in Twitch as it is done on many levels. In Twitch while users want to express and entertain themselves, complementors that develop Twitch extensions and video games developers want to grow their businesses. Like in other platforms, this puts Twitch in a unique position to leverage, control and commodify all these ambitions.

Negotiating these ambitions through its own filter of commodification, Twitch was able to usher various actors into something that I call *deep engagement*. What moves deep engagement is the platform's thirst for surplus data. This motivation is similar to Twitch's user engagement boosting activities discussed in

the previous section. Deep engagement is a mode of collaboration and cooperation that along with surplus data generation points out to a deeper commitment on behalf of the actors involved. The platform benefits from this high level of engagement in terms of content, functionality and interlinking with its parent company Amazon.

Actors who are involved in deep engagement are diverse in their expectations and needs from the platform. Nevertheless, what they get in exchange for their deep commitment is never bigger than what the platform capitalists are acquiring. This is why Twitch is almost always open for new collaborations with streamers, extension developers and gaming companies. Deep engagement is not so much a method that can be applied to a particular situation. It rather signifies how Twitch is enveloping the actors that they associate with. It is a mode of diffusion that by grooming these actors establish Twitch's central position in gaming culture.

3.4.1. Streamers

When we think about streamers, we first think about the successful ones whose streams are watched by audiences of anywhere between few hundreds to thousands. In fact, these numbers are incredibly rare and indicate an elite portion of the streamers. According to twitchtracker.com, Twitch had an average of more than 87.5 K concurrent live channels and 6.69 million monthly broadcasters in 2020 ("Twitch Statistics & Charts," 2020). This is a four-fold increase compared to 2016. And most of these streams don't have more than a few viewers. In general, it is very hard to break away in this crowded scene (Taylor, 2018). And very few are rewarded for their efforts in terms of attention or get any form of compensation.

On the flipside, in the gaming culture streaming is not just about making it big or profitmaking. Participants to studies about streaming often times talk about a passion for gaming and sharing rather than an immediate financial gain (Boomer et al., 2018; Taylor, 2018). This abundance of content is evidently favorable to Twitch since this creates an immense flow covering different games, languages, approaches, etc. When you log in to twitch.tv any time of the day, you can find an

enormous number of streamers playing a myriad of games from established classics to unreleased big budget productions, not to mention the IRL channels.

Boomer et al. talk about how this kind of User Generated Content adds value to the platform and suggest that "let's play is a form of playbour that makes use of work-like skills." (2018, p. 237) A perspective that takes into account the labour (Fuchs, 2014) of the *let's play* streamers takes us to how their unpaid efforts are monetized by the platforms. In this sense, the streamers are not just "prosumers" (Fuchs, 2012) they also create valuable data points as they engage in streaming activity even to tiny audiences.

Bear in mind that average viewers per channel for 2020 period is 24 people, which makes a substantial number if you scale it up with hundreds of thousands of such channels in different languages. People who try their chances in streaming experience how laborious is that. The issue is not just about overcoming the technical issues. Many people documented on various subreddits how demanding it is to keep talking when there's practically no one watching the stream ("r/Twitch - Why do streamers talk to their friends during a stream?," 2017). Even when there's a crowd of a few dozen viewers, streamers report that they are struggling to find something to talk about.

These small channels are providing the *streamees* to experience Twitch's affordances in full force. When there's around 10-20 people watching live you can easily chat with others in the chat, comment to what the streamer is doing and most importantly the streamer reads aloud your message and *answers* to your questions. This experience is enjoyed and perhaps preferred over the top streams by many. Interestingly not much is going on in terms of PPP in these channels rather than occasional tipping or subbing with Amazon Prime. Twitch is supporting these small channels because it caters to audiences who are into active participation to chat instead of crowding out in a top stream. These broadcasters who stream to small groups of people are the bloodline of the platform since it is a very difficult thing to concentrate, play and talk about when there's only a handful of people.

The streaming is difficult, among other things, because of lack of gear, technical hurdles and motivational issues. This last point is crucial because new entrants to streaming often times talk about how difficult it is to motivate oneself to talk about the game that they are playing even though there's only a handful of people in the channel. Streaming is a performative act and like other performances, when no one is paying attention it is very challenging to keep performing.

The audience members that I've talked to, when expressing their admiration towards their favourite streamers stressed the difficulty of self-motivating for streamers. The ones who tried their luck in streaming were particularly appreciative of streaming in general. One fan, in a meet-up told me that: "[o]ver time, so many streamers that I enjoyed watching quit streaming because of online abuse and financial difficulties. This kind of gatherings and even little donations make them happy." That is an appreciative quote that takes into consideration the online abuse too.

To stream gaming content, users need a software called Open Broadcaster Software (OBS) which is a free and open-source software. While most streamers use OBS, it is not easy to set it up and run. There are others that can accomplish the same functions like Streamlabs OBS which comes with built-in 3rd party donation tools from Streamlabs, a complementor company. OBS is almost the industry standard and it can be used to stream or record the video and sound feeds coming from different sources to YouTube, Twitch, Vimeo, etc. In, 2019, in a relatively late date, Twitch released its own OBS software called Twitch Studio ("The Twitch Studio Beta," 2019).

Twitch markets its own OBS software as for "those who have just started streaming or are interested in streaming for the first time" ("Twitch Studio Mac Beta Details & FAQ," 2020). Twitch Studio is indeed very easy to use compared to other OBS software albeit it lacks many features that they possess. Twitch has enough resources to develop a software that can rival OBS. The reason for developing this easy-to-use software is for introducing more people to streaming.

Twitch wants as many people as possible to try their hands in streaming because, yes, they want to discover the next big talent. But also, they want users to experience streaming firsthand so that they can cherish streaming personas even more. And lastly, as mentioned above small or tiny communities do create surplus data by catering to those who would like to engage with the streamers directly. Overall, streaming is deep engagement because it establishes a more profound connection between the audience members and Twitch by immersing them into intricacies of streaming.

In addition to streamers' contribution to Twitch in terms of content generation, individual streamers' monetization efforts is worth mentioning. As Johnson & Woodcock and Bingham has chronicled, streamers try out, employ, improve various ways that they can monetize and gamify their streams (Bingham, 2017; Johnson and Woodcock, 2019). While doing this they use 3rd party apps. For instance, there are many services for collecting donations through complementors and endless tools developed for gamifying live streams. But out of this abundance of monetization and gamification methods it is almost unpredictable to foresee the ones that will be successful. Streamers create surplus data in their involvement with various 3rd party tools that Twitch than decide to roll itself. This is another application of deep engagement where the platform uses its advantageous position between the consumption and production to increase revenues.

3.4.2. Game Developers and Twitch

Video games industry is huge. And video game developers need to think about marketing and publicity as they think about game mechanics to be out there. Twitch is the place where developers showcase their games, build and maintain audiences. Twitch has transformed game reviews and gaming media where streamers who discuss new games or consoles are making big gains compared to games journalists in terms of audience sizes (Johnson and Woodcock, 2018). Game developers enter into partnerships with streamers, sends them early access keys for them to play the game on their live streams, etc. Video game companies might also buy advertisement from Twitch.

While these publicity efforts are more or less expected, game developers deeply engage with Twitch in a few particular ways. If a video game can create new talking points and establish a constant follower base, it can further its lifecycle by releasing updates or selling downloadable content (DLC) packages. This can be done through a dedicated fan base who create various stuff in the game or a constant pack of online multiplayers. In any case if a video game is live streamed and can attract a sizeable or a steady audience it means that the game is very much alive.

This is why Twitch wants game developers to "integrate Twitch into different stages of a game's lifecycle" in a lengthy documentation ("Twitch for Game Developers: Game Developer Playbook," 2019). The "playbook" very much targets small to medium game developers by making the point of how crowded the market is and providing examples from mostly the big budget titles. By integration, Twitch means linking a user's game company/publisher account to Twitch which result in data sharing between the game company and Twitch. In Twitch's privacy policy in terms of 3rd party services it states that usage and diagnostic information like what the user watches would be shared. On the other hand, Twitch gets information from the game developer to "facilitate purchases and awards of digital goods, such as games and in-game items." ("Twitch.tv - Privacy Notice," 2020)

While there is a potential for both sides to generate surplus data, the important point is the scale that Twitch reach by multiplying such account linking. When Twitch makes a deal with an indie games company, -let's call it AAA, Twitch only shares viewing statistics about AAA's games streamed on the platform and AAA passes information about how people who linked their accounts play their games and purchase in-game stuff… On the other hand, Twitch makes deals with companies BBB, CCC and so on… So, from small to big, many game developers are sharing a more or less complete data about their games and businesses. In return Twitch is only sharing data about each gaming company's own titles. Obviously, Twitch can sign special deals with bigger companies, -like DDD, where they are sharing viewing statistics about the games of other companies like AAA, BBB and CCC. Therefore, Twitch can use its leading position in live streaming to harvest

information about all aspects of gaming industry. Out of this deep engagement Twitch acquires even more knowledge about games and users' in-game behaviors that they can match with other data.

In the playbook Twitch recommends that "games in development integrate core, foundational Twitch features to help drive and engage new users." Twitch call this phase as Development Phase and recommends games developers to care about:

> *Driving play. Build hooks to drive users to play your game after launch.*
> *Making your game fun to watch. Keep users engaged in your game when they're not actively playing by creating entertaining viewing experiences.*
> *Ensuring simple implementation. Twitch makes the tools and services you need to easily integrate Twitch into your game.*
> *Tracking measurable impact. Ensure you can track the impact of Twitch programs on core KPIs in future phases. ("Twitch for Game Developers: Game Developer Playbook," 2019)*

Key performance indicators (KPI) are a series of management metrics that game developers use to quantify success of their games. KPI metrics can be shared with advertisers, investors and/or publishers… Twitch's insistence to be linked to KPIs is another example of how Twitch is benefiting from deep engagement by positioning itself as the benchmark in measuring success. This can be about the number of players who live stream their games on Twitch or about the number of people who follow the game's official Twitch channel. Overall Twitch uses the deep engagement to steer the developers to integrate the tools and services that will create data points and KPIs during the early days of game development. A game's early deep engagement with Twitch will make it difficult for potential rivals to Twitch for building similar close relationships.

Another important thing to discuss is related to spectability of the video games. *Fall Guys*, a video game title released in 2020 constitute a fine example for a game that is fun to watch and stream: The game rules are very easy to follow which makes it a breeze for a first-time viewer to be immersed in a game setting where unexpected things are happening which offers streamers plenty to joke, talk

about… Maybe not as precisely but in a similar direction Twitch recommends games companies to develop games that are “fun to watch”. This aspect of the video game being a spectable for viewers is noteworthy because not all video games are fun to watch but they can be fun for those who are playing the game. This perhaps can be called as deep mediatization (Hepp, 2019) of video games.

Twitch is adamant not only on the game being fun to watch but also fit in with Twitch in terms of broadcasting and affordances. They suggest game developers to build a “streamer mode” that will allow streamers to hide sensitive user interface (UI) elements of game. And also, to test the game “with streamers on Twitch regularly throughout development.” (“Twitch for Game Developers: Game Developer Playbook,” 2019) These latter suggestions raise the issue of direct influence of Twitch on game production and platformization of cultural production (Nieborg and Poell, 2018).

Twitch Drops is a feature developed by Twitch to entice users to link their Twitch accounts with game accounts (“How to Earn Drops,” 2020). They offer in-game content like special items, missions, etc. for watching Twitch streams of the relevant game title. So, the game developers design special content for “rewarding” people who watch live streams of their game. With this, a game category’s live viewer numbers increase and establish a community that is actively following relevant streams and discussions about the game. Streamers also benefit from this in terms of incoming viewers and be interested in playing that title.

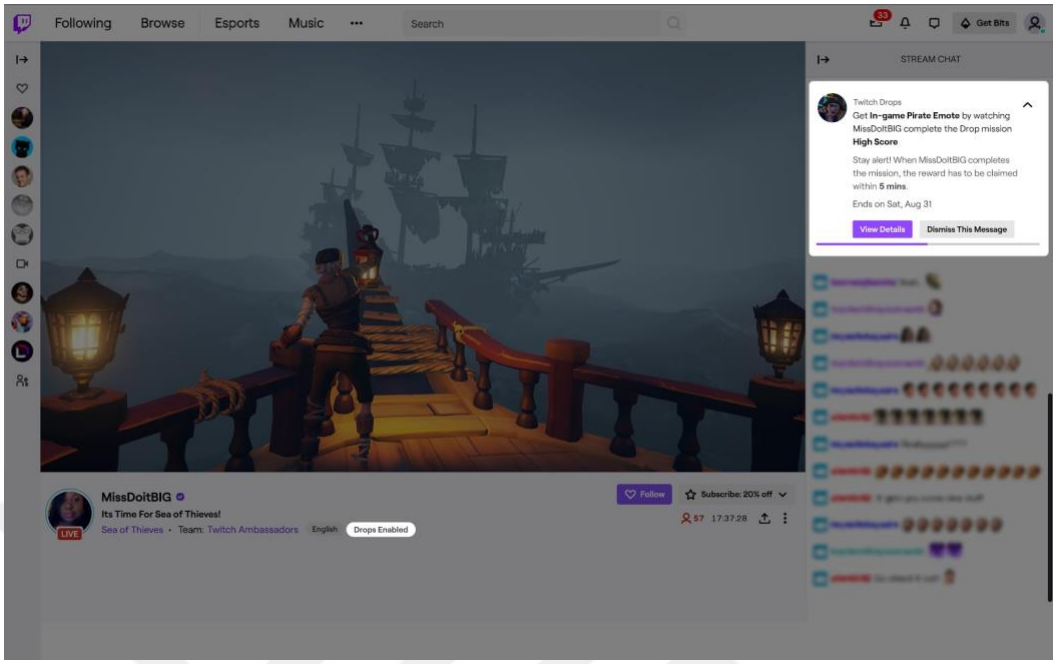

Figure 9 Drops ("Available Today: A New Version of Drops," 2020)

In August 2020, Twitch released an updated version to Drops where game developers "can grant a Drop if a viewer sees a streamer complete a level or defeat a character in a game." Then the *streamee* has a limited amount of time to claim the reward by clicking the prompt which can be counted as SAOE…Decisively, Twitch benefit from this deep engagement the most. Firstly, because of the increased interaction in the part of the audiences who enjoy another gamified viewing exercise. There's also the scaling of data harvesting by the part of Twitch and solidifying its central position in gaming culture as establishing extensions between the games and itself.

3.4.3. Extension Developers and Twitch

Bruno Latour proposes to study phenomena at their birthplaces such as "the artisan's workshop, the engineer's design department, the scientist's laboratory, the marketer's trial panels" (2007, p. 80). *Twitch Developers*[4] is one of the crucial places to make sense of Twitch because it constitutes an integral part of the

[4] https://dev.twitch.tv

platform's affordances and design elements. Twitch Developers is an official Twitch site where 3rd party developers can deploy new extensions that are "live apps that interact with the stream, as a panel on a channel, or with chat." It is also a place for game developers to integrate their games with Twitch.

This subsection will be dealing with extension developers since game developers' deep engagement with Twitch has been chronicled in the previous subsection. Here's an explanation of what Twitch extensions is from an introductory video: "Extensions add interactive features to key areas within the Twitch viewing experience such as in the video player itself or below the player in the panel. They are created by developers like *you* and are made available to all streamers to use on their channel page" (*Twitch Extensions 101*, 2017). Over the years 3rd party developers have released tons of extensions. These might be live game stats, polls, mini games or various countdowns…

A 3rd party Twitch extension might be developed by small or big sized game companies, complementor companies or individuals. On Developer Day 2020 Twitch shared a quarterly developer survey that they've conducted prior to the event (*Twitch Developer Day 2020*, 2020) According to that %73 of Twitch developers are working solo, %16 is employed by a company that has a size of 2 to 9 personnel, %6 works in a company of 10 to 49, and the rest is more than 50. Twitch has dedicated social media presence for Twitch Developers, in addition to the site which has introductory videos, detailed documentations, guidance and coding examples. Twitch Developers has also its own Discord channel and GitHub page for communicating the latest codes with developers.

Moreover, Twitch Developers has its own Twitch channel where they live stream regularly about new extensions, collaborations or new API and SDK releases that the 3rd party developers use to build their extensions on. These streams showcase Twitch employees that have become familiar faces for 3rd party developers. They call Twitch developers as "dev community" and try to keep them as engaged as possible. Some of the people that are employed in Twitch used to be 3rd party developers. Sr. product manager James Sun, who is responsible for the

Channel Points system used to develop his own loyalty based extensions under the guise of Revlo (Sun, 2017). Independent Twitch developers might also be picked up by bigger companies that develop various live streaming based services for streamers and gaming companies.

These examples prove that when developers involve in this deep engagement activity with Twitch there is a probability of them being hired. Twitch Developers is also a place where many people learn to code and write their first tools. So, it has this community service aspect with documentation, videos and community support facilitating young people's entry into coding. There are instances of particular channels' fans writing an extension for that channel's specific needs. While it is not possible to disregard the vocational training benefits for many, some issues need to be raised about how Twitch is grooming developers.

What kind of extensions are being developed? Which of those are becoming popular and why Twitch is featuring/recommending some of those on Twitch Extensions homepage? What kind of data is being extracted? In what capacity the extension developer have access to the data? Or is it strictly for the use of Twitch's commercial purposes? What kind of user interactions are envisioned/encouraged by the platform? Are the functionalities of popular extensions are being re-released by Twitch as built-in features?

I will be discussing these questions in relation to the "success stories" shared on Twitch's official blog. Here's how an official blog post about a 3rd party extension begins: "Not every Twitch Extension is made by a whole team of people. Sometimes, like in the case of Sounds Alerts, all it takes is one person looking to improve the Twitch experience." ("Sound Alerts: A Twitch Bits-in-Extensions success story," 2018). The blog post details how the "hobbyist developer" and gamer Altoar came up with the idea of Sound Alerts, a "Bits-enabled" extension that allow audience members to play sounds on live streams.

Bits is the virtual currency in Twitch and can be primarily used for cheering, i.e., tipping the streamers and Twitch gets a cut for every time a bit is used. Twitch promotes this extension because it is a fine PPP practice that is tied to audiences'

desire of engagement. Streamers “can also set a Bits amount that viewers must use for each sound button, so they can monetize their use of the Extension”. For instance, a siren and a cartoony fail tune might cost different. Additionally, streamers again, found new ways to deploy this extension. Altoar chronicles how PUBG streamers added fake gunshot sounds to their Sound Alerts. Audience members by triggering those sounds “making them think someone in the game is shooting at them. The imagination is endless.”

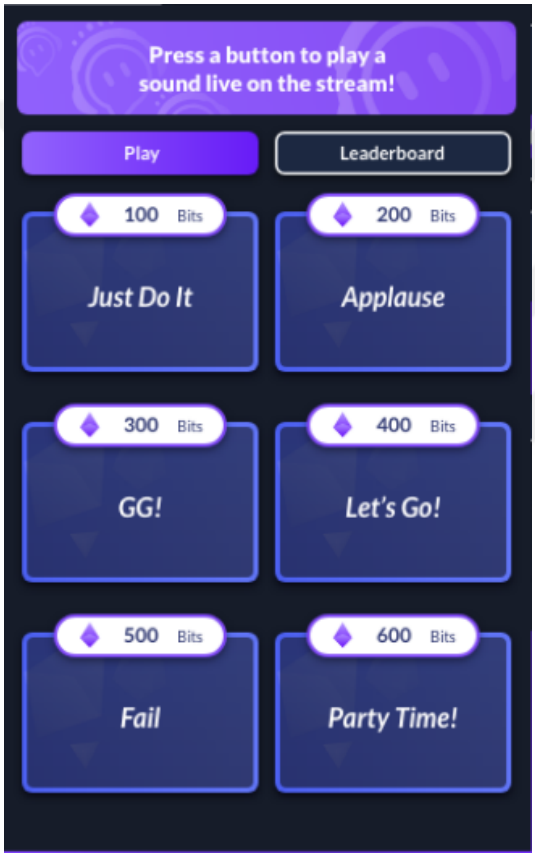

Figure 10 A screenshot of Sound Alerts
https://dashboard.twitch.tv/extensions/bttsqjy6dnv05acplp5vy0mflgrh3z

Extensions bred the most desirable outcomes for Twitch as evidenced by Twitch’s blog post about the Sound Alerts extension. By promoting extension development to its millions of users Twitch can crowdsource creativity in extension development with little financial renumeration. The abundance of extensions means that the experience over at Twitch is constantly in flux both for audience members and the streamer who can use new extensions. Twitch particularly enjoy extensions

that are linked to bits because it is a direct commodification of Twitch's affordances even though they claim that their goal is to "help streamers and developers generate revenue on Twitch" ("Creating Monetization Opportunities for Developers and Streamers," 2019). In addition to 3rd party developers, streamers test out innovative ways of using extensions as referenced by fake gunshot example in Sound Alerts.

While amateur developers hold a certain potential for moving new media interactivity and storytelling their production environment is cut, groomed and directed towards commodified practices. Here's another extension example: Timeout with Bits is an extension that lets audience members to timeout others by sending bits. If someone gets a timeout he/she won't able to post messages to chat during the timeout.

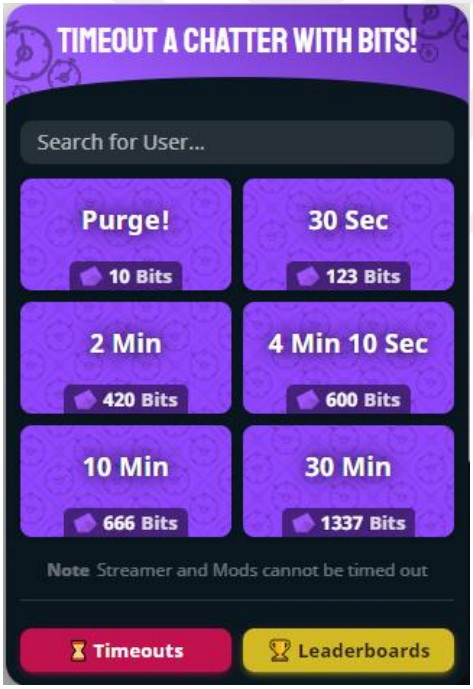

Figure 11 A screenshot of Timeout With Bits https://www.twitch.tv/ext/np7dksjwmdp34s29k4ggbs1qu7ybwh

While this creates funny moments or can be considered as just another way of supporting the streamer it merits a reflection in terms of PPP which I've described as direct monetization of engagement like messages embedded to donations. In this case one person's PPP activity is subverted into another audience member's losing of engagement. Timeout with Bits is worth mentioning because it

is one of the featured extensions on the Extensions Discovery page on Creator Dashboard and the extension's creator has been selected to the Ambassador Program ("Twitch Welcomes our First Developer to the Ambassador Program," 2020).

Overall, Twitch Developers is a fully controlled "community" where Twitch reap the benefits of being the decisionmaker. Having said that developers can also request stuff like improvements to coding infrastructure or raise other issues. But just like in the previous subsections on *deep engagement*, the platform's benefits outclass the actors that are deeply engaged with them. Twitch Developer Services Agreement forbids extension developers from "Transferring profile content to any ad network, data broker, or other advertising or monetization-related service." And remind any 3rd party developers to get into a separate agreement with Twitch to use the harvested data for marketing or research purposes. ("Twitch.tv - Developer Agreement," 2020) While this is good for users' privacy, these are practices that Twitch is already engaging in constantly.

3.5. CHAPTER SUMMARY AND CONCLUSION

In July 2019, Fortnite World Cup have drawn more than 2 million live concurrent viewers over a weekend on Twitch and YouTube. Although this is quite a big number, it is actually eclipsed by many other big events such as DOTA 2's International Tournament in the summer of 2017 that topped 5 million concurrent viewers, primarily on Twitch (Spangler, 2019). These numbers are indicative of how eSports on live streaming platforms is becoming a huge thing, but the story goes further than the popularity of some special events. Over the years Twitch has become the de facto home for video gaming in non-Chinese internet.

According to the data research company Nielsen, "less than 40% of the Twitch eSports viewership claim to watch television on a weekly basis" (Gera, 2018). This shows the disruptive nature of the present media landscape and a harbinger for how the future audiences might come into fruition. When it comes to disruptiveness of live streaming there are other factors at play and as Taylor points out it "is an excellent example of the ways multiple cultural trajectories collide and

iterate." (Taylor, 2018, p. 23) Thus, exploration of exploitation in Twitch is related to distortions in television culture, gaming, fandom, social media platforms, user generated content and communication technologies.

My data collection and coding process established two categories of exploitation: The first one is related to how the users' envy of *engagement* is transformed into profit by the platform. This profit maximization is done through the creation of surplus data and, also, by a direct commodification scheme of some engagement features into what I call *pay-per-participation*.

The second category of exploitation is related to *deep engagement* on Twitch. The emphasis on this category is on the actors like developers and streamers who are considered as showing a more labour-intensive engagement. While those actors enter the deep engagement by expecting different outcomes the platform's profit is always bigger because of their regulatory power and scaling.

Engagement did not emerge with digital media. If we go back to the roots of broadcasting we'll see that a show that can create a buzz was always appreciated for anyone with a stake in media: "Advertisers and commercial broadcasters wanted to know more about the consumers they reached, which is why audience ratings were an integral part of broadcasting from its very beginning" (Moe et al., 2016, p. 99). There are considerable differences between the audience ratings in legacy media and digital platforms like Twitch.

For one thing, Twitch collects on the go information about audience members' watching habits. The data is not harvested through a declaration by the viewers or sampling. Moreover, the amount of data points generated in Twitch is extremely high, not just compared with legacy media: When you compare the engagement opportunities with other social media sites like YouTube or Instagram, it is again, higher. Such extensive engagement metrics is exciting for advertisers. They can also combine Twitch data with data coming from different sources provided that they get into a partnership with Twitch.

Twitch's application development interface (API) offers 3rd party developers to build extensions that will help make it a space of augmented engagement with many features coming in and going out. Twitch's 3rd party development community is the busiest if you compare it to other live streaming platforms like YouTube or Facebook Live. Twitch's platform dominance obliges the company to groom the developers into building extensions that will help out the company's quest of surplus data generation which benefit from economies-of-scale advantages that comes with Twitch being in contact with a large portion of gaming ecosystem.

One other takeaway about Twitch's affordances that combine digital communication and television is how this convergence has been steered towards the platform conglomerate's commercial logic. Amazon is a company that employ surveillance tactics on actors that it comes into contact with like consumers, producers, developers and it needs a certain type of engagement data by combining it with other data. Amazon then uses this surplus data in order to improve services, develop new products and also run advertisements on its network.

This corresponds with the trend of social media companies establishing "themselves as the unavoidable mediators for all aspects of life, with a capacity to act simultaneously at the molar level of large-scale social shaping of attitudes and habits and the molecular level of personalized targeting of users" (Langlois and Elmer, 2018). Amazon already does this with retail, home appliances and health trackers ("Amazon Halo health tracker debuts," 2020). Gaming as a "passionate" area create a stream of data points about their consumption habits, lifestyles and preferences to be than deployed for adjustment of production of services and commodities.

One particular aspect is how Twitch was able to maximize the profit by pushing the audiences to pay more attention than just watching. Contrary to most social media platforms, Twitch is establishing a direct monetary relationship with their users in terms of monthly subscriptions to specific channels or one-time cheers (tips) to streamers. The unequal relationship between the stars and their fans is

exploited by Twitch in PPP practices. While Twitch executives are clear on their will of commodifying this asymmetric relationship, the audience members that I've interviewed are not unconscious about this relationship. Some of those maintained that they are happy to support the streamers because it is a difficult vocation and as an activity similar to spending money on another leisure activity like going to a cafe.

Most of these young people do not regularly watch television and don't have a deep relationship with the legacy media. Accordingly, having a publicly critical approach towards Silicon Valley company's data collection schemes or Twitch's push for more user engagement is a rare occurrence. This kind of close relationship that Amazon can establish with these young audiences is another source of power for the company that it can extract more value.

What the digital platforms has mastered is the ability to turn human activities into potential sources of surplus value and what Twitch perfected is the ability to increase these human activities on the platform through new extensions and features that are developed by an army of developers that are not all employed by Twitch. Many independent 3rd party developers and complementor companies conduct their businesses in precariousness by trying to sell their services to other parties or directly to Twitch. In that respect, Twitch Developers is a space where very amateur to professional software developers come together to socialize around developing new features and tools to be deployed to further the platform's commercial agenda.

Twitch frequently update and release new built-in features along with a plethora of extensions. This thesis was not related to documenting each and every one of these. Instead, by collecting data on this field I've tried to pin down how exploitation is done on Twitch. Incidentally, under the sections of *engagement* and *deep engagement* other features and actors could have been discussed. For instance, instead of Hype Train, I could have discussed Subscription Gifting which is a feature where audience members can gift monthly subscriptions to others…

In any case all the action and this endless flow of new features and extensions can only be explained by one thing: Platformization which constantly transforms *watching others play video games*. As the platform conglomerate positioned itself between the consumption and production in order to acquire more information the platform evolved with a preoccupation of surging the engagement. This preoccupation is transforming broadcasting into a new media space with immersive experiences. This is why for the audiences; consuming Twitch is more than just watching a live stream. Consuming Twitch is participating in gamified activities, interacting with others during live streams and spending money on microtransactions too. When this kind of consuming happens, the capitalists gain information to be used for adjusting production processes that can then be used for pushing a surge in more consumption therefore creating, in the words of Amazon's CFO, a "self-reinforcing loop".

CONCLUSION

In the reign of Atys the son of Manes their king there came to be a grievous dearth over the whole of Lydia; […] as it did not cease, they sought for remedies. And then were discovered, they say, the ways of playing with the dice and the knucklebones and the ball, and all the other games excepting draughts (for the discovery of this last is not claimed by the Lydians). These games they invented as a resource against the famine, and thus they used to do:--on one of the days they would play games all the time in order that they might not feel the want of food, and on the next they ceased from their games and had food: and thus they went on for eighteen years. ("Herodotus on Lydia,", l. 94)

The story that Herodotus wrote in *The Histories* about Lydian King Atys who reigned 3 thousand years ago adds another accolade to Lydians as the originators of games along with the inventors of money. Although this account of the inventors of gaming has been disputed it is nevertheless considered as an emblematic story of power of play where even in the most desperate times, playing or watching games can help people. New York Times bestselling author Jane McGonigal uses this story to build up her argument that video games become a way of reestablishing lost community in the digital age.

She goes on to claim that "For the starving and suffering Lydians, games were a way to raise real quality of life[,] to provide real positive emotions, real positive experiences, and real social connections during a difficult time." (McGonigal, 2011, p. 349) We can't know if these games improved Lydians' quality of life, we can only guess that some of the famishing people must have had some fun as gaming is associated with it. I believe that such a romanticization of a semi-historic account is worth mentioning because it disregards how games as spectacles are useful in hiding important issues. Games have cognitive and other benefits, but in the case of Lydians when they were publicly played every other day by the king's decree it became a tool for Atys to distract the people from the real

issue. So, by grabbing his people's attention the king was masterfully silencing any potential complaints.

This is why I want to mention Guy Debord, the great media critique who argued that "the spectacle serves as a total justification of the conditions and goals of the existing system" (Debord, 1967). It seems that this was somewhat the case for the Lydians as they kept playing games for 18 long years of famine. The longevity shows that the famine could not only be explained by a "draught" since it is a very long time for a climate anomaly to happen. Besides, what McGonigal doesn't mention in her book is the aftermath of these 18 years where according to Heredotus, Atys decides to halve the population because of the enduring famine. So again, *playfully* he makes his people draw lots to decide the ones who will form the colony by embarking towards an unknown location (Holland, 1937, p. 377).

The moral of the story should not be about how gaming improved "quality of life" but rather how gaming as a spectacle can be deployed to control populations to, in this case, justify their living conditions. While it is beyond this thesis' scope to discuss whether there was corruption or other reasons behind the famine that took place during the reign of Atys, the son of Manes, I can at least point out to how gaming and watching others play is one of the façades that the tech companies are building to generate profit by exploiting engagement. Similarly, the enjoyment that the audiences are having over at Twitch does not come hand in hand with a discussion about ways in which Twitch exploits every other actor in the platform.

Video games are fun and a streamer who talks about the game that he/she is playing offers a new type of entertainment that is consumed live. This liveness adds another layer for the audience members in terms of media experience. In the second chapter I've offered a discussion about the audiences' motivations for watching other people play games. Audience enjoyment in Twitch is not only associated with purely entertaining aspects of the platform, educational, inspirational and community building aspects are important too.

The multiplicity of motivations and people's inventive use of the platform as a way of self-expression worth mentioning as well. A scrutiny that is informed

by political economy perspective is known to discard this. I haven't come across streamers or audience members reflecting on about the ways in which Twitch is commodified. Commodified activities like sending donations, or subbing is almost always associated with showing support in Twitch. There's not much of a resistance against such PPP practices.

Although 2020 was a year where issues related to sexism and sexual assault was addressed in Twitch ("Twitch Executive Accused Of Sexual Assault As Platform Begins Permabanning Alleged Abusers," 2020) there isn't a wide-ranging discussion about privacy and data collection. It is safe to say that platforms like Facebook and Twitter are getting more scrutiny in terms of their data collection capabilities compared to Twitch. Here we see the same disregard for gaming as a space outside of the political. Likewise, as I pointed out in 1.2.6, PlayStation's privacy agreement clearly states that the company collects data from in-game decisions that can then be used in advertisement purposes. When the two console giants, Microsoft and Sony released their next-gen consoles at the end of 2020 gaming press or streamers did very little to compare these two devices in terms of their data collection capabilities.

The issues that I bring forward in terms of these tech companies' business models and might are global issues. Nevertheless, what they offer the audiences have different repercussions in non-western contexts. For instance, during a period where freedom of expression is curtailed (Yesil, 2016) and young people are increasingly becoming dependent on social media for news consumption and entertainment (Yanardağoğlu, 2020) social media sites offer potentials for emancipation (Saka, 2019). For instance, in Twitch, some Turkish language streamers started to read news, watch current affairs related YouTube videos and discuss politics too. These streamers establish new frontiers in alternative media with their innovative use of the interaction possibilities of the platform by also reaching young audiences.

Andreas Hepp talk about media-related *pioneer communities* of maker, open data and quantified-self movements as "potential 'laboratories' for what might

become broadly based phenomena" (2016, p. 929). Similarly, audiences at Twitch with their strong attachment to their objects of fandom (streamers and games) offer ways of thinking of how larger audiences might act in the future. When one considers that Twitch viewers are mostly young people, the case for the pioneer community is getting stronger.

These young audiences' relationship with Amazon can be classified as "permissive consensus" (Culpepper and Thelen, 2019) which relies on audiences' enjoyment of services offered by Amazon such as Twitch and Amazon Prime. While these consumers are partly aware that big corporations do not always have their interests at heart, young people's alienation towards mainstream media make Silicon Valley companies even more attractive. So, the consensus is stable enough for Amazon to hold to a prospect where it becomes one of the major players in future online markets.

Moreover, while these young audiences feel that they can hold this consensus as long as they enjoy services of Amazon, the company is busy trending towards concentration with the platforms that they own. Twitch is the biggest player in the live streaming market that is only populated by few other competitors. It is highly probable that the Amazon's up-and-coming cloud gaming platform, Luna will be one of oligopolies in that market along with Google's Stadia and Microsoft's xCloud.

Nieborg reminds us that "Without exception, platform markets trend toward concentration, or as economists call them—'winner-take-all' markets" (Nieborg, 2020, p. 6). In 2020, Amazon has made assertive offers in Turkey. For instance, they sold bestseller books with a %70 discount ("Amazon Türkiye'de 'Yılın Son Fırsatları,'" 2020). Although that example might seem to be related to e-retail it is still important as it portrays the ambitions of the company which would very well result in erasure of small players from the market.

This thesis takes Twitch as a case study to unpack new value extraction methods of contemporary capitalism. Therefore, the discussion on how Amazon is deploying the power of gaming culture to establish a direct link with its present and

future customers has replenished the previous pages. While surveying issues related to platformization and monopolization I was able to observe other groups that Twitch comes into contact with. The relationship sets between the platform and the extension/game developers are valuable because it lays bare the platform's surplus value creation logic.

By looking at the Twitch's official documentation, blog posts and community streams on Twitch Developers I traced how the platform uses 3rd party developers for invention of new extensions for Twitch streams. I took issue with how Twitch pushes for the development of new extensions that will work with *bits*, an in-platform currency or any extension that will make audience members to engage with the streamer or the platform. Moreover, gamification is a method that is employed by many extension developers because the audience consists of mostly gamers and fit with the platform's engagement boosting efforts.

Twitch Developers is a "community" where companies or individuals develop tools and extensions for Twitch. There are dedicated Twitch employees to guide the community into desired objectives. On their end, they also take input from the developers to improve the APIs and SDKs that the 3rd party developers build extensions upon. With this effort Twitch can crowdsource creativity in extension development with little financial renumeration. As only few of the 3rd party extensions are used in the long-term, Twitch does not have to employ these people directly or come up with new ideas. The common aspect of all extension stories that Twitch advertises as successful turn out to be developed by individual Twitch developers that do not work in teams. These extensions, then, are tested and improved by an army of streamers that are willing to improve their streams…

In Twitch, new extensions and tools are being developed in a fast pace because of an immense competition that is in some ways fueled by a potential for being hired by a complementor company or the Twitch itself. This is having an effect on the audiences' experience of Twitch, which is every other day filled with new tools, jokes, emotes, etc. This broadcasting experience that is always in flux with increasing engagement methods is a harbinger for more immersive

experiences. Particularly, e-Sports competitions offer dynamic add-ons that display interactive menus or viewing angles to choose from. These immersive experiences not just mean good business for what it adds to broadcasting in terms of entertainment, but it creates engaged audiences that leave behind new digital traces to be harvested by corporations.

Evidently, this brings us to the present media experience of Twitch which is not simply about watching. It is an experience dubbed as "networked broadcasting" (Taylor, 2018). I believe that the user experience in Twitch is mostly associated with consuming a variety of affordances, content and interactions. Even watching a particular game's livestream instead of another's is a data point that can be employed in future production of goods, services and games. This is a realization brought forward by Deleuze & Guattari and Twitch by situating itself between consumption and production has become an indispensable force in gaming. Particularly how the company pushes game developers to associate KPIs that will be based on Twitch statistics is a testament to this.

Overall, Twitch is keen to develop responsive interfaces and ever-evolving modes of communication more than ever. These are the things that move the experience towards new media and create surplus data. The exploitation done in Twitch is about how the audiences are pushed into spending more time, and money towards their objects of fandom. When they simply watch, or even better, engage with others or the tools in the platform Amazon generates surplus value. Amazon as a behemoth of late capitalism does this via "the relational data that conjoins users, non-users, objects, locations, and temporalities (time periods, lengths of attention, and so forth)." (Langlois and Elmer, 2018, p. 5)

Here's another quote from McGonigal on the Lydians, engagement and hunger: "we are no different from the ancient Lydians. Today, many of us are suffering from a vast and primal hunger. But it is not a hunger for food—it is a hunger for more and better engagement from the world around us." (2011, p. 6) Firstly, I'm surprised that she thinks people are no more suffering from hunger for food. Nevertheless, she is right about people's yearning for more and better

engagement throughout the world. What she doesn't mention is how the tech companies like Amazon exploit this yearning in disruptive ways.

Twitch in this sense is a marvel of engagement. The site offers small acts of engagement or *deep engagement* possibilities. When an actor engages with Twitch, the platform grooms this relationship into ways that it can profit from multiple angles. This is why almost all features carry *double articulations*. (e.g. gamified mechanics like channel points make people watch and engage more with the platform.)

This is why my conception of *commodification of agency* fits into this epoch where our attention is getting scarcer and the tech companies' quest for swift flow of content and enlargement define their platform logistics and eventually a good part of our culture. In this time of turmoil, potential feelings of lack of meaningful engagement are exploited expertly through a series of para-social relationships with the star streamers. It is a simulacrum of engagement where the signs are replaced with commodified copies of those signs.

The mere act of watching someone else play is replaced with *watching and providing data points*. Commenting someone else's play is *cheering with bits* now. You need to learn coding because Twitch needs you to develop extensions that will *make everyone's experience better* by *strengthening community*. Amazon promotes Prime membership because it is *a self-reinforcing loop*… All these articulations point out to how tech companies can shape attitudes, habits and how we relate to others on a meta level because their services are used by millions. They can then individually target these large groups of people through personalized advertising and dynamic interfaces and content, boxing them in different ghettos of information to be recalled when needed.

The observation of how large media conglomerates can influence the public sphere is not new. From political economy, to media industries (Hesmondhalgh, 2019) or communication power (Castells, 2013) different concepts have been deployed to make sense of how commercial logic had an effect on human condition. The ways in which the digital technologies and particularly platform capitalists

have unleashed a similar influence has been chronicled too (Gillespie, 2018; Srnicek, 2016).

This thesis by building upon these considerations, focus on a relatively recently popularized phenomenon called live streaming. By observing the affordances of and power relations between the actors in Twitch, the leader in this sector, conceptualization of *commodification of agency* arose. So, this thesis documents the proceduralized choices of a digital platform in terms of how it uses our desire to participate and/or interact. By procedures I mean how the platform capitalists design, promote and groom certain economic and social arrangements over others.

While these arrangements have immensely important consequences like how people can express themselves and their gender identities on Twitch (Zolides, 2020) and what Twitch is doing to combat abuse and hate on the platform, I have tried to discuss the platform procedures in relation to a complicated integration of diverse businesses owned by Amazon. Where it hosts and runs other companies and games through its cloud service AWS and curate media content (on Twitch and Amazon Prime Video). Amazon also acts as an advertisement network where it is in the business of leasing advertisement spaces (on IMDB and Twitch) and usage data. Amazon is also in the business of producing content directly along with manufacturing of software and hardware. Last but not least, the e-retail operations are benefiting from the company's other ventures in terms of brand affinity and data. This is causing questions in terms of a scrutiny of media concentration (Poell, 2020, p. 651). I have tried to address this in terms of perils of tech companies' self-deployment to critical infrastructures which increase their evaluation and might.

As the future promises us more immersive media experiences and more gaming, I believe that Twitch will continue to be a wonderful example where broadcasting, social networking and gaming collide. Because of its ties to Amazon, a digital behemoth, it also provides a peak into the ambitious surplus value creation methods that not only rely on harvesting of data but also using the platform powers to the fullest to commodify engagement in myriad ways. If anything, this platform

will prove to be even more influential in the coming years both in terms of its cultural significance and in Amazon's ecosystem of profit generation.

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İstanbul Bilgi Üniversitesi

ETİK KURUL DEĞERLENDİRME SONUCU
RESULT OF EVALUATION BY THE ETHICS COMMITTEE

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından doldurulacaktır /This section to be completed by the Committee on Ethics in Research on Humans)

Başvuru Sahibi/Applicant: Sarper Durmuş
Proje Başlığı / Project Tittle: Commodification of agency: Participation on live streaming platforms
Proje No / Project Number: 2020-4031-94

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	X
2.	Ret /Application Rejected Reddin Gerekçesi /Reason for Rejection:	

Değerlendirme Tarihi / Date of Evaluation: 15.12.2020

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