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## **'The affordances of live-streaming in times of Covid-19'**

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**'The affordances of live-streaming in times of Covid-19'**

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Master of Science in Cultural Anthropology and Development Sociology

Global Ethnography

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## Chapter 1: Introduction

On March 6 2020 I had just finished my *Methods in Practice* week in which I and my fellow class members of the February Master group had just finished the process of writing a research proposal for our Master thesis. During the Methods in Practice week we as a class had tested a couple of field methods for the anthropologist, such as observation, interviewing and describing and drawing specific spaces. After every day of testing these methods, we would come together as a class and discuss our daily adventures and new insights. We would drink coffee together and joke about the ‘failures’ each of us faced trying to do these specific methods.

One week after the Methods in Practice week, Covid-19 seemed to slowly but surely affect the Netherlands as well. About two weeks after our Methods in Practice week, we learned that our research proposals were no longer workable given the recent lockdown measures introduced on 12 of March 2020.<sup>1</sup> All of our research proposals had been based on the assumption of access to a physical field site. This was no longer feasible and we were instructed to write a new research proposal as quickly as possible which would rely more on digital ethnographic methods. For a lot of my class members, including me, this was a shock. We had taken some three months preparing a research proposal and now had to rapidly adapt and re-think our research.

My research initially was going to be about live-streaming on a website called Twitch. Before discussing what changed in my research, it is vital to describe what live-streaming means as a term. Live-streaming is a combination of two different words: streaming and live. Streaming is a technical term to describe the way in which videos online can be instantly watched without having to first download the entire video. For example, playing a Youtube video or watching a Netflix show still requires the user to download the video, but with sufficient internet connection of an user a platform that ‘streams’ can allow the user to start watching before the entire video or show has been downloaded. This is the reason why an hour long Youtube video is already viewable at the start of the video relatively quickly but skipping ahead to the halfway point would result in ‘buffering’ or a downloading of that section of the video. Live is a term closely linked to the music industry to describe a state of performance. Usually artists make a distinction between a ‘live show’ and other forms such as studio recordings. A live show is usually a performance given by artists somewhere happening at that very moment, usually in the form

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<sup>1</sup> <https://www.government.nl/latest/news/2020/03/12/new-measures-to-stop-spread-of-coronavirus-in-the-netherlands>. Accessed on 14/06/2020.

of a concert. Live-streaming combines the technicality of streaming with the social aspect of 'live-ness' to imply that digital videos are being played (live-streamed) at that very moment.

On the 25<sup>th</sup> of April of 2020 I learned that due to Covid regulations my nearby gym that I made use of would start live-streaming as well. For me this raised the question on how what I saw as 'new users' of the live-streaming process would use it for their profession. My plan for this research was to compare what I saw as established 'experienced users' on Twitch with the more recent 'new live-streamers' such as the gym that started live-streaming due to the Covid-19 pandemic. Before I started my fieldwork back in May of 2020, I had some assumptions about live-streaming. Being familiar with only one type of live-streaming, Twitch game live-streamers, made me assume that the live-streamers I called 'new users' would look at the established or 'experienced' users of live-streaming for inspiration. Quite early on in my research I realized this was not the case. Aryanna from the gym had never heard of 'game live-streamers' and Kim from the theatre only vaguely knew of this specific category of live-streamers. And yet each of these two 'new users' managed to create a live-stream which fitted into their respective profession. They did so not by looking at what I saw as 'experienced users' but by creating new affordances of live-streaming.

With the outbreak of the Covid-19 pandemic, live-streaming as a medium became more relevant as a way to fit pre-lockdown business practices within the new health standards and regulations enforced by man governments. These new health standards regulate or outright forbid large public gatherings, making physical distancing an issue every medium has to think of. In this situation, live-streaming became an interesting medium in the sense that most of the time it managed to evade problems concerning physical distance. Live-streaming as a way to broadcast was starting to get used more and more by different parties. National TV broadcasters, such as the BBC in the UK for example, made use of live-streaming for the opening of a new hospital.<sup>2</sup> But importantly and a topic of this project, more local businesses in the Netherlands had to adjust to the situation in order to survive: gyms now post regular online videos and live-streams to their customers in order to keep people fit and retain their customers.

Live-streaming as a medium has much to offer, if only because it can respond to health regulations in a pandemic. Yet live-streaming is not a medium that has recently been created since the Covid-19 pandemic emerged, it has existed well before that time and has an established history in the gaming

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<sup>2</sup> <https://www.bbc.com/news/uk-52150598>, Last accessed: 10/04/2020.

community.<sup>3</sup> Live-streaming usually implies that individuals broadcast themselves to a larger audience out there. These live-streaming individuals are often called live-streamers or more often are emically called 'streamers'. Individual streamers are a part of live-streaming as a medium. An example of live-streaming is E-sports. E-sports (Electronic Sports) often showcase professional gamers competing against each other. An organization that hosts this E-sport event can also live-stream this and usually has 'casters', people who comment live on what is going on during a 'e-sport game', presenting the game in a live performance towards an audience. In this case it is not individual live-streams but rather an organization or event that is being live-streamed. The US based company Twitch is the frontrunner in the business of live-streaming individuals as well as an example of larger organizations dominant in this field. Yet live-streaming has transitioned from being 'a gamer thing' and has begun to resonate with other professions, such as artists, vloggers and musicians.

Besides entertainment, live-streaming is more and more used as a medium for different purposes. What initially started out as gamers live-streaming themselves to other gamers has broadened up to other activities and sectors of society. If one would peruse the platform of Twitch.tv, they would find not just gamers, but also vloggers, models, F1 drivers, the NBA, the E-sports scene, politicians, activists and charities operating on the same platform. All of these actors were actively live-streaming before the Covid-19 pandemics began affecting the lives of almost everyone. With this multitude of actors on a single platform, there emerges a different interest in how to use live-streaming. In the US both the Republican and Democratic parties made use of the live-streaming service of Twitch to broadcast their rallies in the now finished 2020 presidential elections. This multitude of actors shows a versatility in the way live-streaming can be used. Yet different actors will most likely see different interpretations and ways in which these same actors live-stream.

The main research question for this thesis is:

***How do experienced users and new users of live-streaming technology in times of a pandemic adjust their performance to this specific medium and at the same time challenge the affordance of what live-streaming as a profession was?***

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<sup>3</sup> <https://repertoireproductions.com/2017/02/18/a-history-of-live-streaming/>, Last accessed: 10/04/2020.

I will follow this by three sub-questions, namely:

1. ***What are the affordances of life-streaming as a profession for experienced users who live-stream during a pandemic?***
2. ***How do users new to live-streaming adjust their performance to the live-streaming medium to suit their particular professions or needs?***
3. ***How do the new users of live-streaming challenge the affordances of what live-streaming as a profession is?***

The three sub-questions will be addressed in separate empirical chapters. In the upcoming second chapter, I will discuss the theoretical framework of this thesis. In the third chapter I will discuss the empirical data in terms of observations gathered from live-streams on the website Twitch. The fourth chapter will describe the gym case study in which I conducted interviews, surveys and collaborated on creating the live-stream. In the fifth chapter I discuss the live-stream of a theatre in which I observed the live-streamed performances and conducted an interview with the organizer and technician of the theatre. In the final sixth chapter, the conclusion, I draw a comparison between the three cases to answer the main research question.



## Ethics for digital research

A part of my research will be digital research. Digital research for me will include observing live-streams and chat rooms. In one case I will participate with the live-stream. This participation is also digital: I am not physically in the same room as others participating in the live-stream. The Association of Internet Researchers (AOIR)<sup>4</sup> discusses the ethical deliberations that should be discussed by any researcher doing research online. I want to discuss some of these points which I think will be relevant for my research.

Two debates stand out for me: Public versus Private and Data versus Personhood (Markham & Buchanan 2012: 5-7). The public versus private debate focuses on the question on what is private and what is considered public. It reminds the reader to the idea that people may operate on a public platform but still have strong expectations for privacy (Markham & Buchanan 2012: 6-7). I think an example of this is a forum, or more closely to my own research topic, a chatroom. In a chatroom, people make use of aliases or nicknames instead of their own names. While all text that is typed out in a chatroom may be public, the use of a nickname can still give the user the idea that his/her messages cannot be traced to his/her own person. The context of messages in the chat rooms that I analyze are related to the live-stream that is being watched. On Twitch for example a chat room is always visible right next to each live-stream. In my own research to use pictures of chat rooms. My goal with portraying these users and their messages is to provide a visual example of what the live-stream as a whole looks like, since these chat rooms are often integrated in the live-stream itself. By doing this I will not uphold the standpoint that all chat users should be anonymized. I do not anonymize in this case because I believe on the one hand that the messages I portray do not include personal sensitive information but responses to the performance of the live-streamer. Secondly I believe that these users are too hard to trace due to the lack of personal information. Where a forum discussion on sexuality and gender can give compromising hints of the identity of the person, users in the chat rooms I analyze often only provide commentary to what is happening on the live-stream. In my research I did take care to only analyze and select images and users that do not share private and potentially sensitive information.

Another debate closely linked to this is that of Data versus Personhood. The primary question with this is whether a person's data is an extension of themselves or 'raw data' left to collect by researchers (Markham & Buchanan 2012: 7). Can a collection of Tweets from a specific individual be seen as data in

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<sup>4</sup> <https://aoir.org/>

a dataset or as an extension of someone's private life? (ibid.). Consequently, I think this point closely ties into the public/private debate. In my research I want to look at live-streams. Live-streams typically, but not exclusively, are set up to broadcast an individual through a camera which can be seen by the audience of the stream. In my research I use several pictures of live-streamers. For my two 'new user' cases of live-streaming, I have asked and been granted consent from the owners of the images to use these images for my research. In the case of the gym this meant that one instructor, Aryanna, is in an image. Any other instructor not relevant to the case has been left out of any image in this thesis. In one image, heartbeat statistics are linked to specific individuals who have their first name on the image as well. This image is meant to illustrate how the live-stream looked and I try to limit public exposure of those not integrated into the research as much as possible. Since the main point of this thesis is to analyze the ways in which live-streaming is used, I do not anticipate to be discussing personal or sensitive information. Regardless of this, images and names I will try to limit possible breaches of privacy and limit names to those relevant for the ethnographic cases.

## Chapter 2: Theoretical Framework

Within anthropology live-streaming is an as of yet underdeveloped field of study. For this research I will use knowledge established in different fields of research for my case study of live-streaming. These fields will cover concepts of digital worlds and live-streaming, performance and authenticity, resilience, affordances and Pfaffenberger's concept of sociotechnical systems. Before discussing these different concepts however, it is relevant to discuss the digital worlds that live-streaming is a part of.

Hine (2017) discusses how 'real research' in contemporary times with digital technologies requires more than studying the technology itself (Hine 2017: 323). Rather than studying digital technologies as purely technological artefacts, Hine argues that we should study the ways in which interpersonal communications and mass media portray a technology (Hine 2017: 325-326). The interaction people have with different technologies give them meaning to the people who make use of them and this provides a way to the ethnographer to do research (Hine 2017: 326). The way in which technology is given meaning through and in social interaction might also be seen for live-streaming. Live-streaming in part get it's meaning through the interaction streamers have with their viewers. It is not the product but rather the process in which the live-stream is embedded. Users new to live-streaming may have to adjust to new ways of interaction formed through the medium of live-streaming. For many new users, live-streaming will initially be something relatively hard to perform on as the lack of editorial content makes mistakes more apparent: there are no cuts in a broadcast that is constantly live.

Studying digital worlds also reflects back on nondigital worlds. As Horst and Miller (2012) note, nondigital worlds are just as mediated and framed as digital worlds are (Horst & Miller 2012: 13). Terms to describe digital technologies such as virtual often give the impression that nondigital worlds are more 'real' (ibid.). Digital worlds should instead be seen as another mediated and framed arena, just like any 'real life' arena (ibid.). For live-streaming this is relevant because of the combined efforts of the digital and nondigital. Live-streaming requires technical skills as well as performative skills individual who wishes to create a live-stream.

The field site therefore emerges in the course of the study and often spans both online and offline activities, as the ethnographer finds that a particular online activity makes sense in so far as it is embedded within an offline domain (Hine 2017: 319). In this sense digital practices such as live-streaming are embedded in everyday 'offline' practices. With my research this would ideally mean following a field site that spans both online as well as offline worlds (ibid.). In discussion of digital worlds

several academic fields make a distinction between those that are familiar with digital technology and those that are not.

Being familiar with digital technology is what Ng (2012) refers to as 'digital literacy'. Digital literacy implies a certain know-how that are required to make use of digital technologies (Ng 2012: 1066). Where traditionally seen as something linked to younger generations who are 'digital natives' (Prensky, 2001), Ng and other researchers highlight how digital literacy is more about access and prior experience with digital technology rather than bound to any specific generation (Ng 2012: 1065-1067). This only partly describes the spectrum of digital literacy as individuals are capable of learning new digital literacies without prior experience to the technologies that demand these literacies. Despite the rebuttal of generational ties, Ng still makes use of the term 'digital natives' as a way to describe those who can more easily learn new digital technologies due to prior experience with them and are thus more easily 'digital literate' (Ng 2012: 1066-1067).

boyd (2014) is more critical of the term 'digital natives'. boyd argues that the teens who often get branded as 'digital natives' are more akin to 'digital naives', a term coined by sociologist Eszter Hargittia (body 2014: 22). Digital naives in this sense only understand portions of the technology they frequently use. boyd gives the example that teens using Facebook know how to adjust their profile but know little of privacy settings available to their Facebook accounts (ibid.). Furthermore, access to technology varies tremendously between the supposedly "equal" digital native 'generation' (boyd 2014: 23). This relates back to digital literacy. Digital literacy according to boyd requires hard work regardless of age (boyd 2014: 177). Even the term 'digital literacy' might be too generalising. Instead, digital literacy should be seen as a combination of different forms of literacy, one of such being media literacy where people are taught to be critical of online information sources (boyd 2014: 180-182). This idea that digital literacy is independent from age and is often unequal in terms of access will be relevant for looking at live-streaming. At the same time as boyd portrays digital literacy is often a combination of many different literacies at once. For this reason, I will describe the multitude of different literacies required in each live-stream rather than an overall digital literacy of live-streaming as a medium as live-streaming has different affordances. A multitude of digital literacies can also be linked to the concept of multimodality. Multimodality in anthropological terms describes the 'entrality of media production to the everyday life of both anthropologists and our interlocutors' (Collins, S.G., Durning, M., H. Gill 2017: 142). Specifically multimodality encourages the anthropologist to work alongside media forms favoured by interlocutors (ibid.). Above all, advocates for multimodality seem to stress the importance of collaboration, innovation and reflexivity for anthropology research (ibid.). In my own research I cannot claim to

constantly have adhered to these standards, although in a few cases these values worked out better than in the other cases of my research. In the gym case for example, I have tried to be as collaborative as possible by working together with the gym on creating and establishing the live-stream. This was not only my contribution for their willingness to help my research, but also extremely helpful for me to understand just how complicated creating a live-stream actually is. Details otherwise missed behind the screen suddenly popped up as I was involved in the “backstage” or production side of the live-stream. Furthermore, I have attempted to be more innovative with my research material. While I am not a visual anthropologist, I have tried to include as many photo’s of the live-streams as I could to add to the value of what is written.

### The medium of live-streaming

Live-streaming as a technology is used by a variety of different actors. In the US, Artwick (2019) notes that a live-streaming of a mass-shooting was used by a streamer to get viewers and also initiate discussion about gun control (Artwick 2019: 3). News organizations also make use of live-streaming to broadcast live events (Artwick 2019: 77). The biggest platform for live-streaming at the moment (November 2020) is the website Twitch.tv. Taylor (2018) notes that the attraction of a live-stream on Twitch is much like ‘traditional’ live media: you are watching something live alongside many others who are doing the same (Taylor 2018: 2). At the same time, Twitch offers a type of interaction between a streamer and audience that ‘traditional’ media do not. According to Taylor, the audience becomes integrated into the show (live-stream), something Taylor dubs as ‘networked broadcast’ (Taylor 2018: 6). In explaining how Twitch changes the media landscape, Taylor describes how part of the success of Twitch and other user-generated content is that they can work alongside ‘traditional content’ such as television (Taylor 2018: 257). In this way live-streaming appeals neither to the masses that traditional media might but likewise doesn’t appeal to a niche group of people. Often it borders the two, gamers can be seen as a niche audience but such live-streams can have millions of people watching at the same time. When talking about the interaction between a streamer and an audience, it can be easy to see this as a democratic or participatory system where everyone is part of the show. Taylor discusses, however, how there is often quite a critique against this notion of a participatory system and acknowledges that there is such a thing as a ‘participant gap’ which can exclude some viewers despite it’s apparent intentions (Taylor 2018: 259). Personally I think the participant gap needs to be nuanced. Generally speaking live-streams can thrive on the idea of participation and interaction that traditional media can lack in. However there are tools to limit or subvert this participation in favor of a more “traditional” or

less interaction which might be called a 'participant gap'. A participatory system alludes to the idea that 'everyone' is part of the show or the live-stream. This is often not the case, but it is important for many live-streamers to give the impression that it is. This requires a performance on the part of the host, the live-streamer.

## Performance and Authenticity

A consistent term I will use throughout this thesis is the term performance. Goffman (1990) argues that the self is constructed through the arrangement of performances (Goffman 1990: 244-245). In this sense performances are constant for the self and based on the social environment that one is based in (ibid.). The self can only perform on a stage; with a watching audience (Goffman 1990: 32). The presentation of the self through performances is done through two separate stages: frontstage and backstage. Performance according to Goffman revolves around all the activity of an individual who has a continuous presence of observers (an audience) and somehow influences them (ibid.). Frontstage is the way in which an individual influences or performs towards these observers. An individual, or 'actor', has a repertoire of equipment allows the individual to do the performance. Through 'setting' the actor can use different tools, like furniture, clothes, perfume to aid in the performance (Goffman 1990: 32-33). The backstage is a place where can 'store' equipment; the individual is in a state where he or she does not have to perform towards an audience (Goffman 1990: 114-115). The existence of the frontstage and backstage as separate entities can be somewhat misleading. Instead frontstage and backstage should rather be seen as a hybrid system which allows the individual to perform to different audiences. The distance between the frontstage and the backstage for the self can be small and can be used strategically. As MacCannell (2011) and Abidin (2016) show, the backstage can be used strategically by performers to instill a sense of authenticity with observers.

With live-streaming come performers, they who live-stream themselves in-front of a digital live audience. Many live-streamers, or 'streamers', make use of a webcam. A webcam shows the individual streamer, usually in their own bedroom or somewhere in their own home. This might provide what MacCannell (2011) calls 'staged authenticity'. Inspired by Goffman's front- and backstage, the term builds on the idea that the backstage is not just part of the performance, it gives people the idea that there is something secretive in the backstage, something more 'real' (MacCannell 2011: 13-16). Drawing on a case study of tourism, MacCannell explains that tourists often believe that a historical structure or institution always have something 'more' than meets the eye, separating an open 'frontstage' with the 'hidden' backstage (ibid.). In short, MacCannell describes how authenticity is used by tourists to

separate 'real' from 'show', despite the fact that these are usually one and the same. The relevance for live-streaming here is the idea that the backstage or at least notions of something 'behind the scene' are prevalent amongst many audiences. Many people believe there is something special or 'real' to see behind the scenes of a performance or show.

Building on the concept of staged authenticity but even closer to my research field, Abidin (2016) discusses how Selfie Instagrammers use the concept of authenticity to create certain performances. Using the term 'microcelebrity personas', Abidin describes how Instagram influencers in Singapore use a combination of front- and backstage to provide a certain air of authenticity (Abidin 2016: 3-7). Microcelebrity in this sense is defined as being famous to a niche group of people (Abidin 2016: 3). Microcelebrities are more commonly known as 'influencers': those who engage with their niche audience and use advertisements to sell products to this niche group (ibid.). To 'create authenticity', the Selfie Instagrammers in Singapore make 'behind the scenes' Selfies specifically for their followers (Abidin 2016: 13). By making 'behind the scenes' selfies, these influencers perform something that gives the impression of a backstage (Abidin 2016: 13-14). What makes these 'backstage Selfies'<sup>5</sup> fascinating is that they can re-adjust viewers/followers' interpretation of past Selfies. One Selfie Instagrammer for example used an 'exposed Selfie' of herself, which had a negative stereotype and re-contextualized to her followers what this Selfie 'actually portrayed'. By doing this she was able to subvert a negative stereotype of the picture and re-contextualize it to define her positive changes over the years (Abidin 2016: 13). In this sense Instagrammers in Singapore use subversion to affirm or re-affirm their authenticity to the performance of a microcelebrity persona (Abidin 2016: 15-16).

### Affordances and sociotechnical systems

For this research I want to look at several instances of live-streaming by new actors and compare and contrast them with each other as well as with previously existing live-streamers. Here I want to make use of Pfaffenberger's (1992) idea of 'sociotechnical systems'. Pfaffenberger challenges the Standard View on technological evolution which presumes that technology evolved from an era of non-science preindustrial to one of (post)industrial where modern technological systems exist for the application of science (Pfaffenberger 1992: 513). In contrast, Pfaffenberger's concept of sociotechnical systems implies that many social factors establish a technology and that this sociotechnical system creates science, not science creating new technology (Pfaffenberger 1992: 513-514). The term sociotechnical system also implies that a system is always and only given meaning in social interaction. This is linked to the term

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<sup>5</sup> This is my own inserted term, not a term used by Abidin (2016).

affordance. Affordances are the possible applications of an object or artifact (Pfaffenberger 1992: 503). A chair for instance can have different affordances depending on perception. A chair can be used to sit on but also used as a temporary ladder or even as a weapon. The perception a person or community has of the artifact decides its affordance. Furthermore, artifacts usually have a social role or ritual associated with them (Pfaffenberger 1992: 504). The chair of the monarch in a speech from the throne is meant to be sit upon, but through social meaning it becomes clear that only a specific person can sit upon this chair. In this sense Pfaffenberger responds to and rejects the Standard View on technology in the sense that artifacts are purposely imbued with a function and style, or social meaning, from their inception as artifacts (ibid.). I want to look at live-streaming as a sociotechnical system. As Hine (2017) describes: the interaction people have with technology gives them meaning. I think this is equally applicable to the technology of live-streaming, which rather than being an innovative technology is a re-iteration of a previous sociotechnical system: live television. This may be what Pfaffenberger calls *technological regularization*.

Pfaffenberger describes three processes or stages, in the life of a sociotechnical system: *technological regularization*, *technological adjustment* and *technological reconstitution*. The process starts with *technological regularization* which creates a political ideology to change the allocation of power, wealth or prestige (Pfaffenberger 1992: 505). It is important to note that Pfaffenberger in this stage mentions how a technological production process is either created *or* modified, implying that not all technological systems are built 'from the ground up', but rather emerge through adjusting already existing technological systems. *Technological regularization* establishes a technological process with a dominant discourse. This discourse can be challenged, either tacitly or openly (Pfaffenberger 1992: 506). *Technological adjustment* assumes that those who lose out on a system will through subtle ways create adjustments to their benefit or to gain access into the dominant system as a whole (ibid.). *Technological reconstitution* is a more radical adjustment to the dominant system: it appropriates the technology to create a 'new', or perhaps rather a branch of, the already existing technology (ibid.). Pfaffenberger gives the example of the personal computer (PC), which according to Pfaffenberger was a reconstitution of the (often military) established dominant technological system<sup>6</sup>, which negates or reverses the political implications of the dominant system (ibid.). In a sense this process could be seen as a constant cycle of

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<sup>6</sup> Pfaffenberger gives the example of the APRA net. An military application that would become the roots of the internet as a technology.



changing political dominance: PC's have become the dominant technological discourse from its origins of a 'reconstitution' technology.

### Live-streaming in times of Covid-19

I want to find out how people adjust their performance in Covid-19 times as they use live-streaming as a method to interact with their audience, complete with all the challenges that such a move brings. For part of such adjustment the term 'resilience' might or might not be relevant. Resilience is the ability of people or things to recover quickly after something unpleasant, such as shock, injury, etc. (Oxford Dictionary (n.d.)).<sup>7</sup> It is important however to remain critical of this term and its wider implications. Bonilla (2020), for example, uses the case of Hurricane Maria in Puerto Rico to critique the usage of the very term. Resilience here was defined by several academics as the ability to absorb and bounce back from experiences of shock, such as a disaster (Bonilla 2020: 2). However, as Bonilla portrays, more and more institutions like United Nations attempt to quantify resilience as a human skill that can be taught and performed by communities (ibid.). Bonilla questions whether communities should be resilience, as this 'resilience' can also likely normalize structural discriminations (ibid.). Bonilla notes that resilience in Puerto Rico after Hurricane Maria became to be defined as citizen self-care instead of government care, as there was virtually no working government available to provide care (Bonilla 2020: 5). While this can be seen as something positive, it can be questioned whether the citizens of Puerto Rico had any real choice for them to behave in any other way if they wanted to survive the post-hurricane situation. Bonilla questions if this form of resilience, one where the responsibility solely is at the side of the citizen (and thus not on the state), is part of a neoliberal endurance (ibid.). In my research I was a bit hesitant to use the term resilience, as I realize that adjusting to Covid-19 circumstances may be a matter of financial survival rather than self-care. For some businesses struggling with Covid-19 government regulations, they may see live-streaming as a way to generate some revenue while following government guidelines. The effects and affordances of live-streaming in this case also have to be scrutinized. There are many businesses that cannot make use of live-streaming: barbers, masseurs, restaurants and pubs require a physical interaction that live-streaming cannot (yet) provide. Of the businesses that can make use of live-streaming, such as gyms, many will only be able to partly provide live-streaming services to their customers. Some customers might refuse to participate whereas others may find the technological barrier too high. The Covid-19 pandemic may persuade some businesses to start to live-streaming, but how will they their business practices to the digital medium of live-

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<sup>7</sup> Retrieved from <https://www.oxfordlearnersdictionaries.com/definition/english/resilience>. Accessed 05/05/2020.

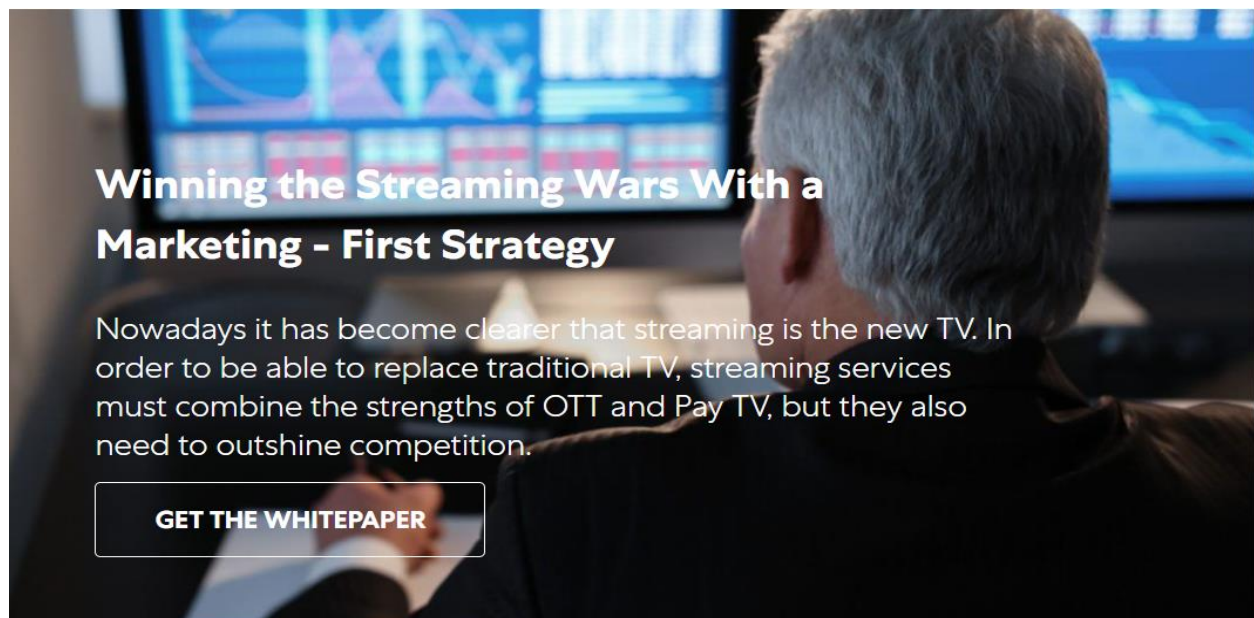
streaming? The ways in which people adapt will most likely differ based on their profession (i.e. the difference between how a gym live-streams and a school does) and perhaps also based on different cultural backgrounds. For this specific research I will not look at the specific cultural background of people who live-stream as I want to retain focus on the different ways people live-stream.

Another important factor to consider in relation to Covid-19 is my own position as a researcher. Lockdown regulations has affected my own research as well by forcing me to adapt to the new circumstances. Higgs, Martin and Vesperi (2020) highlight the importance of anthropology to study the rapid changes resulting from the pandemic (Higgs, Martin & Vesperi 2020: 3). The dubbed 'Coronacene' might be 'just as worthy of attention' as the 'Anthropocene' (Higgs, Martin & Vesperi 2020: 2). An article reflecting on this 'Coronacene' that is relevant for my research is one by Love and Wu (2020). Love and Wu keenly observe that while everyone is 'in the same boat' in regards being under the influence of Covid-19, the ways in which people deal with this influence is vastly different (Love and Wu 2020: 65). In this sense access to information and adaptability or resilience to new circumstances can be key in navigating through the 'Coronacene'. In my own research, new users of live-streaming are motivated by restriction put on their regular services as businesses to start live-streaming. Access to information on how to live-stream differ between my two cases of new users. Where one hires a specialist to do the live-streaming for them, the other decides to learn to how live-stream on their own. This difference in power will be of relevance in how each establishes their live-stream to, in their own way, work with Covid-19.

How do people adjust their profession and performance on a, for them, new medium? In comparison to the 'new users' of the live-streaming format, there are live-streamers who have been live-streaming for several years now. These live-streamers I call 'experience' in the sense that they are more familiar with a kind of live-streaming. Having said that, it should be noted that there is no 'correct' or 'one way' of a live-streaming. Therefore, my comparison between 'new users' and 'experienced users' should be seen as an attempt to find comparisons and differences between different 'kinds' of live-streaming.

## Chapter 3: Twitch

The Covid-19 pandemic and the resulting regulations to deal with changed the social lives of many. For some, live-streaming became a medium to use when other options direct contact were severely limited. Whether it was businesses who began using Zoom for their meeting or teachers who started using Kaltura to live-stream their classes, live-streaming as a medium is now used by a diverse group of people and institutions. Yet despite the perception that live-streaming was the new and rising medium for people to use, live-streaming already has an established history. This is partly the reason why the transition for many unfamiliar with live-streaming was (from a technical perspective) relatively easy to do: there were already plenty of (free) applications and software programs available to live-stream with. As we will see later on in the gym case however, the knowledge of such applications existing is not self-evident to those unfamiliar with live-streaming.

An advertisement for a whitepaper. The background is a dark, blurred image of a person's head and shoulders in profile, looking at a computer monitor displaying data charts. The text is overlaid on the image in white. The title is 'Winning the Streaming Wars With a Marketing - First Strategy'. Below the title is a paragraph of text: 'Nowadays it has become clearer that streaming is the new TV. In order to be able to replace traditional TV, streaming services must combine the strengths of OTT and Pay TV, but they also need to outshine competition.' At the bottom of the advertisement is a white button with the text 'GET THE WHITEPAPER' in black capital letters.

**Winning the Streaming Wars With a Marketing - First Strategy**

Nowadays it has become clearer that streaming is the new TV. In order to be able to replace traditional TV, streaming services must combine the strengths of OTT and Pay TV, but they also need to outshine competition.

**GET THE WHITEPAPER**

*An advertisement on the Kaltura website with the quite bold claim that streaming is the new TV, drawing a comparison between streaming and 'traditional TV'. The word 'streaming' is context sensitive here: it can imply live-streaming but can also simply refer to the streaming of videos (à la Youtube or Netflix).*

Even before Covid times, live-streaming as a medium was on the rise as different organisations, news organisations for example, started making use of live-streaming. Individual influencers already have an established history with live-streaming, using live-streaming to better reach their audience. These individual influencers can be game live-streamers on Twitch for example (Uytenbroek, 2020).

As part of my research, I wanted to look at a case of experienced users. I define experience users as those who have live-streamed for several years before the Covid-19 pandemic. I want to do this with the knowledge that while for some live-streaming is an up-and-coming new medium, for others it already has a long past and comes with certain standards. Besides this, live-streaming can demand a performance that can differ depending on the profession of the live-streamer. Game live-streamers on Twitch will probably perform differently from gym live-streamers. With my research question drawing a comparison between 'experienced users' and 'new users', I first want to look at a case of what I see as more established users: Twitch live-streamers.

Before discussing the origins of the live-streaming website that is Twitch, I first want to discuss my personal affinity with this website. Twitch is a live-streaming website that mainly offers a home to game live-streamers performing on the website. I have been watching several Twitch live-streamers for a couple of years. Initially back in February of 2020 I was planning on specifically zooming in on Twitch live-streaming by looking for a research internship at the Twitch company in the US. However by March 2020 these plans had to be scrapped in favour for domestic research goals as travelling abroad was both dissuaded by the university of Leiden. Furthermore, the Trump administration in the US also made the declaration that non-essential travels between Western-Europe and the US would all be suspended. Due to these circumstances I decided to focus on local research opportunities while retaining the Twitch case as a digital field site. I am using this case to draw on comparisons and observe differences between local live-streamers newly familiarising themselves with the technology and more established forms of live-streaming on Twitch. From the peer feedback<sup>8</sup> I have received, I have become increasingly aware that my choice of Twitch as platform for game live-streamers is seen by some as a strange comparison with 'new live-streamers' such as a gym and a theatre. Being reflective I think that my own background in gaming and having watched many game live-streams before definitely has influenced my choice for Twitch as a research case. Still, I believe live-streaming can be studied along the lines of Hine (2017), as a digital technology. Hine argues that digital technologies should be studied in the way these technologies are portrayed through interpersonal communications and by mass media (Hine 2017: 325-326). The interaction people have with each other and through different technologies give the technologies (social) meaning for the people using them (Hine 2017: 326). Linking this to my own research on live-streaming, I see live-streaming as both a technical affordance as well as a social phenomenon. To bring

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<sup>8</sup> During the writing process of the thesis I have received feedback from class members in the same writing course. In this course we would share written chapters with each other for feedback.

back Pfaffenberger's (1992) 'sociotechnical system', I think live-streaming is a good example. Live-streaming requires users to both master the ability to live-stream (through hardware and software) as well as social skills to become successful towards an audience (a performance). I think this is the reason why studying live-streaming is interesting: it is a symbiosis of the technical and the social. Only through the combined technical and social skills can a live-streamer successfully perform towards an audience. An aspiring live-streamer has to understand how to use a streaming program like OBS while also being able to speak in front of a camera towards an often invisible crowd. With the now increasing amount of 'new live-streamers' due to the pandemic, I want to look at the differences between the 'established' or 'experienced' live-streamers on Twitch and compare these differences to how the 'new users' live-stream. Before exploring what live-streaming means on Twitch, I briefly want to discuss the historic background of the live-streaming website.

### The origin of Twitch.tv

Twitch.tv is one of the largest live-streaming websites with some projections stating the website to have 140 million monthly unique users.<sup>9</sup> Twitch essentially provides two (main) services: live-streaming and video on demand (VOD). Live-streaming usually implies a single broadcaster or performer doing something in front of an long distance audience possibly equipped with a camera. However live-streaming can also be used in broader contexts, such as to broadcast an e-sports event live. Video on demand allows viewers to watch 'past live-streams'. Past live-streams are videos of live-streams that have already been broadcasted. These live-streams were 'live' at one point in time and can through video on demand be seen by users. It is essentially a 'past live performance' in the sense that a recording of a live concert would technically no longer be 'live' but would still be a 'live recording or performance'.

Twitch.tv didn't originally start out by its current name. Its predecessor was the website Justin.tv. Established in 2007, the website provided users with the ability to deliver 'user generated live video content' which it called 'broadcasts'.<sup>10</sup> These were essentially live video performances which would later be called 'streams' or 'live-streams'. Just like modern day Twitch, Justin.tv is a platform that allows users, or a broadcaster, to live-stream on the website. These broadcasters are not hired by the platform but often share in revenue garnered on the website with the platform.

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<sup>9</sup> <https://videogamesstats.com/twitch-stats-facts/>. Accessed on 24/11/2020

<sup>10</sup> <https://en.wikipedia.org/wiki/Justin.tv>. Accessed on 24/11/2020

This platform type work of content creators and/or influencers is sometimes called aspiration labour as these unpaid content creators try to stand out in the 'attention economy' to create a regular source of revenue (Valles and Schor 2020: 276). Despite being unpaid workers, Valles and Schor note that many platform workers, including content creators, exhibit an 'entrepreneurial orientation towards work and identity' (Valles and Schor 2020: 277). This makes discussion about platform workers complex: on the hand they are precarious workers who have limited rights compared to traditional markets. On the other hand they are given more flexibility compared to more traditional labour in the sense that they can decide their own working hours, at the cost of losing a regular income. On Twitch this 'freedom of entrepreneurship' sometimes seems illusionary: to make a living wage content creators have to work 'regular' business-like hours, despite the supposed 'freedom' of deciding their own working times. This is an important reason Valles and Schor make a distinction between supplemental income workers and full-time workers. Supplemental income workers using the platform economy often benefit from the extra revenue earned whereas full-time platform workers are far more dependant and are in a more precarious labour position due to the lack of many rights and stable income (Valles and Schor 2020: 280).

In 2008 Justin.tv started introducing categorisations to its website with live-streams for different categories. Some of these categories were: News and Tech, People & Lifecasting, Sports, Music & Radio and Gaming. In 2011, Justin.tv decided to separate redirect its Gaming category to a new website called Twitch.tv. Reason for doing this was the high popularity of the Gaming category on Justin.tv. Alongside live-streaming, e-sports had been on the rise for a while at this point. E-sport usually refers to professional gaming. This 'professional gaming' is usually highly competitive and quite popular among fans of the games to watch as in eSports 'the best of the best' are competing against each other (like any regular top sport). Justin.tv wanted to become 'the world's best live esports site'<sup>11</sup> to profit from the increasing social and financial interest in e-sports. Because Justin.tv had redirected it's gaming category to the new website of Twitch.tv, Twitch started out as a game live-streaming platform whereas Justin.tv retained the non-gaming 'user generated content' or 'live-streams'.

Twitch.tv would turn out to be extremely successful. It would turn out to be so successful in fact that the website name of Justin.tv as organisation name was re-branded to Twitch Interactive.<sup>12</sup> The increasing reliance on Twitch as its main source of income would also slowly but surely spell the end of Justin.tv as

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<sup>11</sup> <https://venturebeat.com/2011/03/10/justin-tv-esports-channel/>. Accessed on 24/11/2020

<sup>12</sup> <https://www.fastcompany.com/3026207/as-twitch-grows-justintv-inc-is-renamed-twitch-interactive>. Accessed on 24/11/2020

we formerly knew it. In 2014 Amazon acquired Twitch Interactive for the sum of \$970 million USD.<sup>13</sup> Integration with Amazon would result in what is referred to as 'Twitch Prime'. Twitch Prime allows Amazon Prime<sup>14</sup> users to subscribe once a month for free to a single broadcaster or 'streamer' on Twitch.tv. Nominally a subscription to a broadcaster costs \$5 USD a month. Despite Twitch's original viewpoint that they do not hire broadcasters or streamers but are merely providing services and share in revenue with broadcasters, Twitch has in 2019 started making exclusive contracts with some high-profile (counted in amount of viewers) streamers. This is probably due to rising competition from other live-streaming platforms such as Mixer by Microsoft, Facebook Gaming and Youtube Gaming. In June of 2020, Microsoft decided to shut-down Mixer and instead partner with Facebook gaming.<sup>15</sup> Before Twitch.tv started signing exclusivity contracts with certain streamers, Mixer had started offering lucrative contracts to 'high-profile' streamers on Twitch to only live-stream on the Mixer website. As a response to this, Twitch decided to sign exclusivity contracts that had the function to retain certain 'high profile' streamers solely to the website of Twitch. This is an interesting shift as while these contracted 'high profile' streamers started out as independent entrepreneurs they are now semi-independent due to exclusivity clauses in their contract limiting them to a single website to live-stream on.

The rise in prominence of Twitch as a separate website for game live-streams saw a shift in policy from the brand company now known as Twitch Interactive. Where Justin.tv had initially separated Twitch to a different website to host gaming live-streams, Twitch had now become so successful that it integrated the non-gaming live-streams of its parent company. In 2014 Justin.tv shut-down as to better focus on Twitch.tv.<sup>16</sup> Where Twitch had started out as a game live-streaming platform, it slowly but surely saw an influx of non-gaming live-streams. Currently Twitch has several different categories for live-streaming, most for different games but some also for non-gaming live-streams. Some of these categories are: 'Just Chatting, Music, Slots, Sports and Art'. In an ironic twist of fate Twitch has yet again become what Justin.tv initially was, with the exception that gaming is arguably still the dominant form of live-streaming on the website.

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<sup>13</sup> <https://www.businessinsider.com.au/amazon-buys-twitch-2014-8>. Accessed on 24/11/2020

<sup>14</sup> This is a paid subscription on the website of Amazon. Those who only have a regular account do not have access to Amazon Prime.

<sup>15</sup> <https://www.theverge.com/2020/6/22/21299032/microsoft-mixer-closing-facebook-gaming-partnership-xcloud-features>. Accessed on 24/11/2020

<sup>16</sup> <https://www.theverge.com/2014/8/5/5971939/justin-tv-the-live-video-pioneer-that-birthed-twitch-officially-shuts>. Accessed on 25/11/2020

Besides differences in categories, Twitch also makes a distinction between 'live-streams' and 'VoD's'. On Twitch 'past live-streams' are referred to as Video(s) on Demand or VoD. Video on Demand is an already established concept dating back to the 1990's when TV broadcasts could afterwards be watched through an internet connection on televisions and on personal computers.<sup>17</sup> With live-streams on Twitch, live-streamers can enable 'VoD's' to have their live-streams be saved as videos. Technically speaking live-streams are videos, but VoD on Twitch allows viewers to watch a live-stream after it has happened 'live', in other words as a streaming video. While the VoD system on Twitch may seem irrelevant compared to the 'real deal' that is live-streams, it is important to keep in mind that this is the second key service Twitch provides: it handles both live-streaming and Video on Demand. While it is hard to estimate just how many people watch VoD's or watch Live, I would estimate a slim majority watches live while many others use VoD's or other forms of recordings such as Youtube videos to watch (past) streams. The combination of these two factors will be relevant later on when discussing the issue of copyrighted content and the 1998 Digital Millennium Copyright Act.

### What does it mean to 'live-stream' on Twitch?

When analysing Twitch live-streamers, many of whom are game live-streamers, some academics draw a comparison with other live media. On Twitch live-streams can be watched by many viewers at the same time. This evokes a feeling of previously discussed Taylor (2018) who argues that just like traditional live media, people enjoy watching things live with others (Taylor 2018: 2). Nardi (2010) argues that the medium of a game generally provides more interaction than other media. Inside the game, the players are forced to switch from observers to participants, something often lacking in 'traditional' media (Nardi 2010: 92). This is perhaps a difference compared to 'traditional' live media. While Taylor argues that the audience become integrated into the show through 'networked broadcasts', on Twitch this seemingly happens through the use of a chat room accompanying each live-stream (Taylor 2018: 6). For Twitch live-streamers this chat room is a part of their performance. Viewers can interact with the live-streamer and what he or she does during the live-stream in real time. Added to this is the multitude of other viewers who are doing the same, perhaps creating the 'watching something together' feeling that Taylor discusses. The audience becomes 'integrated into the show' meaning they, just like the Twitch live-streamer, are giving a performance.

Twitch.tv defines itself as a platform. In this sense, it provides certain services, such as live-streaming and VoD's. Theoretically 'anyone' can live-stream on the website. It is technically 'free' to do so and

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<sup>17</sup> [https://en.wikipedia.org/wiki/Video\\_on\\_demand#cite\\_note-vidaa.tv-1](https://en.wikipedia.org/wiki/Video_on_demand#cite_note-vidaa.tv-1). Accessed on 25/11/2020



requires an up-and-coming live-streamer to simply make a Twitch account. This idea that 'anyone' can become a live-streamer masks two problems. The idea that live-streaming requires little to no starting capital is a false assumption. For starters, someone who wants to live-stream requires a personal computer or above-average laptop. The hardware inside these devices needs to be sufficient enough so the computer can handle the recording and transmission of a live (high quality) video feed. This is the reason why many 'high profile' live-streamers on Twitch have two computers: one to play a game on and a second computer to process the video feed (data) of that game and transmit this to the website of Twitch to be broadcasted. The recording and transmission of video feed also requires specific software to handle the process. Many live-streamers on Twitch make use of the free of charge Open Broadcaster Software (OBS) to record their video feed and have it codified in a way that the website Twitch can broadcast (transmit) it. Another aspect that is part of this process is linked to transmission. The transmission of live video requires a steady broadband internet connection. Normally internet connections provided by telecom companies focus on the download speed to highlight how good their internet connection is. Unfortunately for live-streaming, upload speed is usually a lot lower than the indicated download speed. Having a high upload speed is essential to transmit video data. Without it, the live-stream would either have average image quality for the viewer or would have a lot of stuttering; hampering in the video indicating that the connection is unstable. The stable processing and transmitting of video data are essential for any live-stream.

Secondly there is a large difference between 'being a live-streamer' and 'being a successful live-streamer'. While some 'high profile' live-streamer on Twitch can have up to 100,000 people watching them at the same time, many other live-streamers struggle in getting even a handful of viewers to watch their live-streams. This can be linked to Abidin's (2016) notion of 'microcelebrity persona's' where a position like an influencer can seem to be very appealing and accessible but hides the actual effort and performance required to become a live-streamer (Abidin 2016: 3-7). This is what Abidin refers to as 'subversive frivolity' in the sense that the portrayed unseriousness of the job hides the generative effort required for live-streaming (Abidin 2016: 2). Before we dive deeper into 'microcelebrity persona's' and their performance however, the play part of live-streams need to be discussed.

### Camera's, Categories and Games

There are several technical components that still need to be discussed. Two components for securing a live-stream consist of a camera and a microphone. The reason I did not mention these components earlier is because they are technically not essential to live-streaming. In fact, some live-streamers opt to

not use a camera at all, instead relying on their voice and gameplay. Still generally speaking more successful 'high profile' live-streamers do make use of a camera and microphone. A microphone is an important tool to add personality to the live-stream: viewers are not just watching a game being played but also hear the live-streamer reacting to said game. A camera can be relevant to give more visual stimuli to viewers: they have a visual representation of the live-streamer and can visually see how the live-streamer act or reacts to situations during the live-stream. Both a camera and a microphone are performative tools that can aid the live-streamer to 'become successful' (on Twitch) and garner a community of viewers.

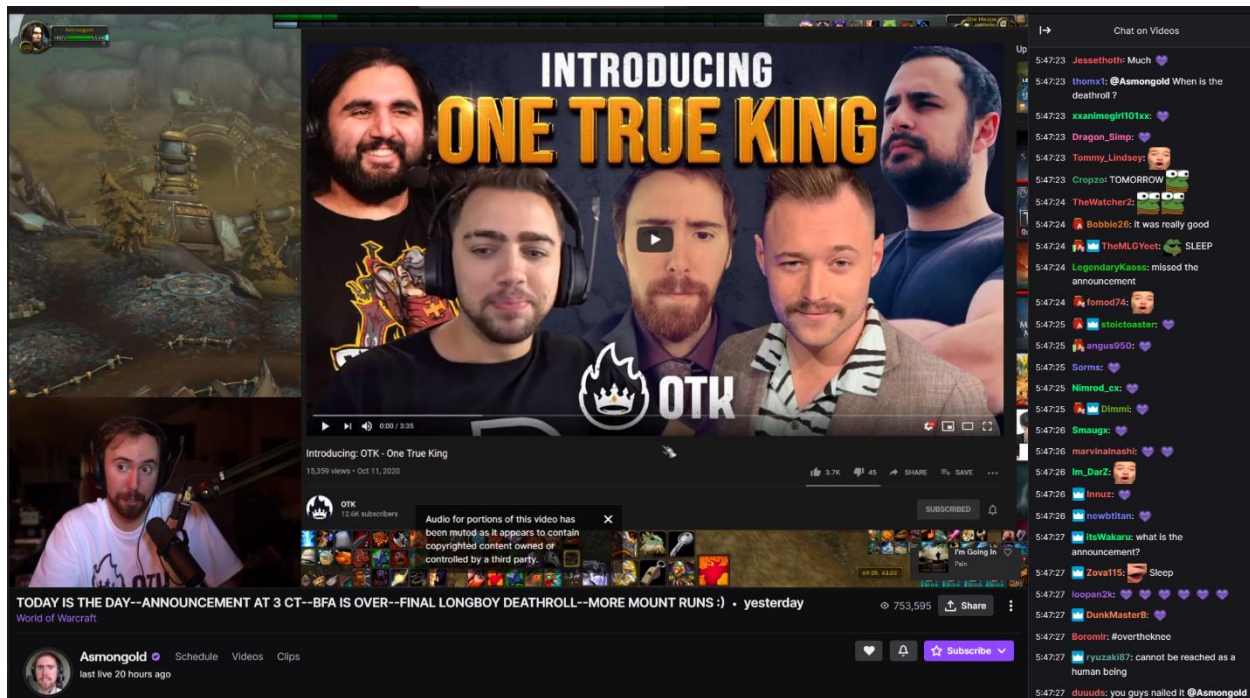
Most live-streamers on Twitch are game live-streamers. It may be easy to conclude that picking a 'good game' is thus essential for a successful live-stream. This is partly true, at least for starting live-streamers. On Twitch there are now (26<sup>th</sup> of November 2020) around 7,26 million live-streamers worldwide.<sup>18</sup> This results in quite a fierce competition: to attract sponsorships and advertisers a live-streamer has to breach a certain threshold of consistent viewer numbers. Choosing which game to play is relevant for the success of the live-stream: generally popular games have a larger audience. Yet live-streamers can also try to find niches: less popular games have less viewers, but might still attract larger viewer numbers because there is less competition from other live-streamers playing the same game. On Twitch there are categories for games and other genres. Popular games are listed higher in the category page than less popular games. Live-streamers have to position themselves in such a way in order to play something popular enough that there is an audience, but not too popular or competitive to where they drown in the sea of other, more popular, live-streamers. What is perhaps consistent between picking a niche game and a popular game is the need to be competitive or at least to be successful playing the game. Yet what is niche and what is mainstream may differ between the cultural background of live-streamers and viewers alike. Those who win are generally speaking more appreciated and in theory get more viewers. This is however a simplification of reality: if performance in video games would be all that mattered, the live-streaming of games would purely revolve around E-sports athletes who dedicate themselves to perfecting a game. Yet many 'high profile' live-streamers on Twitch are not E-sport athletes. Instead they are usually what live-streamers on Twitch refer to as 'variety streamers'. Variety streamers refers to a category of live-streamers who do not revolve their live-stream around a single game but play several games next to each other. In this way they can 'keep up' with new popular games and avoid the risk of a popular game and with it, their status, falling into stagnation. For the live-

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<sup>18</sup> <https://www.statista.com/statistics/746173/monthly-active-streamers-on-twitch/#:~:text=Active%20streamers%20on%20Twitch%20worldwide%202020&text=According%20to%20the%20findings%2C%20Twitch,active%20streamers%20in%20September%202020>. Accessed on 26/11/2020

streamers who seek to make live-streaming their career, becoming a variety streamer can be the ultimate goal. This is because variety (live-)streamers make an extremely important step into becoming what Abidin might refer to as microcelebrity persona's: they transform the focus point of the live-stream from the (popular) game to themselves as being live-streamers. Making this step requires a steadfast and loyal community of viewers. Live-streamers that are very successful with a popular game but lose a large amount of viewers playing a different game fail to make this transformation. The career path of someone wishing to become a 'successful live-streamer' is a constant negotiation: the ability to play a popular game well while also establishing a 'cult of personality' or 'community' in which viewers watch to see 'their' live-streamer instead of the performance of the live-streamer in a game. For those that have made this transition into 'variety streamers' or 'microcelebrity persona's', deals with corporations and companies become a lot easier. For example, merchandise in nearly all forms can now be 'personalised to the live-streamer'. This often results in coffee mugs, mouse pads, laptops, clothes, and much more being branded as 'streamer merch(andise)'. Companies offering these goods can appeal to the viewers of the live-streamers to support 'their' live-streamers while sharing profits from the sales with the live-streamer. Game publishers are often also quite eager to work with 'high profile' live-streamers. Because of the large and loyal following a live-streamer has, 'sponsored live-streams' are a tool to have a live-streamer play a certain game from the game publisher for a set amount of time. In return, the live-streamer either receives a set 'price per hour' to play a game or a 'price per viewer' contract for the duration of the 'sponsored live-stream'. The main point I am trying to make is that game live-streaming is far more than proficiently playing a video game, it requires negotiation with parties and strategies across the field.

## A Twitch live-stream performance



*An image of the Twitch live-streamer Asmongold.*

In the period from September 2020 until November 2020 I had several Thesis Seminar classes in which written chapters of this thesis would be discussed with fellow class members. When I presented my findings of Twitch to peers in my class and showed them the above picture, many were utterly overwhelmed. I had asked them as a test to talk about what they saw in the picture, what caught their attention. Many thought there was ‘too much going on’: what was even the focus point, where did we have to look at? One observed a portion of the chat room: hearts emoji’s being portrayed by several people. One astutely observed and successfully deduced that the bottom left was the ‘live-streamer’ who was watching a video on the centre of the screen while playing a video game in the background. The reason I included this picture is twofold. On the one hand it shows the complexity of the amount of ‘things’ going on: there is a performance happening and it is hard for “outsiders” to understand what is going on. Secondly the focus point of this picture is almost barely on supposedly ‘important part of the live-stream’: the game. Instead, the focus point of the live-stream seems to be the video in the centre and the live-streamer in the bottom left who has both a microphone and camera.

With everything that is ‘going on’ during a live-stream for the viewer it requires a certain know-how of what is going on and what everything means. Being able to discern what is going on might be part of what Ng (2012) refers to as ‘digital literacy’. Digital literacy implies a certain know-how that are required

to make use of or enjoy these digital technologies (Ng 2012: 1066). For my own research I want to take the term digital literacy critically as some learning aspects of Twitch require more than technological knowledge or skills. In fact, I would argue that in some ways, understanding Twitch is more akin to understanding a 'Twitch culture' with its many social aspects. Watching a live-stream on Twitch requires different forms of literacy. In this sense I want to follow body (2014) by highlighting how understanding a live-stream often requires several technical skills and literacies to follow or participate with. The audience (or a portion of it) has to understand social values linked with certain emotes to be able to use these emotes 'correctly'. Correctly in this way refers to the standards of what some participants in live-streams on Twitch would call 'Twitch culture'. For viewers familiar with this 'Twitch culture', some would argue this culture as a cohesive website-wide understanding of emotes and it's specific meaning. Yet just like regular language, emotes can have different meanings depending on contexts, making them more complex than a simple single message translation. Before diving deeper into what Recktenwald (2017) calls 'single turn messages', I first want to describe and explain the things 'going on' during a live-stream on Twitch.

To return to the Asmongold live-streamer image at the start of this chapter, there are several major and some minor things to notice for those familiar with Twitch live-streams. Probably the most relevant is the visual representation of the live-streamer him/her-self. In the bottom left side of the image, the live-streamer Asmongold is visible. Like many other live-streamers, Asmongold makes use of a camera and microphone during a live-stream. These tools are essential for a live-streamer, especially those wishing to become 'influencers' as the live-streamers needs to establish a following amongst viewers who are 'loyal' or at least regularly watch the live-streamer. When I initially talked about 'game live-streamers' it might falsely highlight games as the most relevant aspect of these live-streams. However a camera and microphone are vital for the performance of a live-streamer. To zoom in specifically on Asmongold, his performance is a part of the live-stream. While playing the videogame called World of Warcraft, Asmongold frequently tries to get valuable in-game items. These in-game items are rewarded by chance, in essence relying on luck whether someone gets these in-game items or not. During a normal live-stream, Asmongold does up to a dozen or more 'attempts' at getting these in-game items on a single day. Purely from a game perspective, this action is quite repetitive: watching someone roll a dice fifteen times a day and mostly failing is not necessarily the most entertaining thing to watch for most people.<sup>19</sup>

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<sup>19</sup> A possible link can be seen with gambling and its addictive game mechanics. Yet for this case I do not directly want to draw a link between in-game items and gambling mechanics as such a comparison requires focused research.

Yet despite this, Asmongold can do these attempts at getting in-game items by luck while retaining a large audience base. Does this large audience simply enjoy watching someone roll the dice and fail over and over again? I would argue that the thing that makes this work for Asmongold is performance. Over all the attempts of 'getting the in-game items', Asmongold establishes a certain pattern in both speech as well as in bodily behaviour. Because the chances for getting these in-game items are usually exceptionally low, most attempts will not succeed. During attempts at getting these in-game items, Asmongold will first set the stage. In the videogame, in-game items can be 'looted' which the player has to see if he received the item. Players can do this as quickly as they want to. However Asmongold will first take a deep breath, clasps his hands and exclaim how this time 'I will get it this time'. In-game, he will slowly make his way to the loot area, again waiting several seconds, building up the tension. Finally, sometimes with eyes closed, he will 'loot' and see if he received the item he desired. To increase crowd interaction, he will sometimes shield his eyes from the screen to only look at the chat room, to see their reactions and gauge whether or not he received the desired in-game item. If he did receive the item, he will be extremely jubilant, raising his voice and whooping. If he didn't receive the item, he will show severe disappointment. This sometimes goes as far as holding his head in his hands in a sign of apparent disappointment. Since by chance calculation he will most likely have more times 'losing' or 'not receiving the item' than 'getting the item' or 'winning', he often loses. Yet after every loss, he will always voice the same line: 'Next time, next time we will get it for sure'.

While at first sight one may simply call this 'behaviour of an addicted gambler', I believe there is more going on. In every single of these instances of getting or not getting the in-game item, Asmongold makes repeated and 'overdramatised' notions with both his body language (overtly disappointed, overtly happy) and through his voice. Consistency seems a key part here: the audience can almost predict what he is going to say. I do not believe this is mere chance but trained performance. Giving the same performance instils a certain trust and expectation with his viewers: they already know what his reaction is going to be either way and will react accordingly in the chat room. This I believe is what MacCannell (2011) calls 'staged authenticity' in the sense that the ideas viewers have of a backstage is a part of the performance of the live-stream itself (MacCannell 2011: 13-16). The use of a camera by a live-streamer on Twitch allows live-streamers to create authenticity to their viewers. Since the visual representation of the live-streamer is core part of the live-stream, viewers can feel as if they are quite close to the live-streamer. The viewers can see how the live-streamer plays the game and how he/she reacts to what is happening. Because live-streams are often 'live', mistakes that happen cannot be masked easily or quickly. The audience can thus be given a feeling of 'staged authenticity' or of a

'backstage' in which they can 'see the real person'. One way this is represented is in an inside joke in "Twitch culture" across chat rooms. When a live-streamer discusses their job (that is, live-streaming on Twitch), they are often mocked and ridiculed by the audience in the chat room who declare that 'live-streaming games is clearly just a hobby, it is not a real job'. This subversive potential of live-streaming is what Abidin (2016) calls subversive frivolity. Abidin describes subversive frivolity as: 'I define subversive frivolity as the under-visibility and under-estimated generative power of an object or practice arising from its (populist) discursive framing as marginal, inconsequential, and unproductive.' (Abidin 2016: 2). The notion that live-streaming games is 'not a real job' gives it the 'generative power' that Abidin discusses. I believe this exact frivolity adds to the 'staged authenticity' discussed by MacCannell (2011). Because the audience doesn't see the live-stream as a performance or show, they more readily accept the idea that they are watching a live-streaming gamer play some videogames for fun. This same notion is in turn used by live-streamers to establish a following of viewers. In the case of another live-streamer called CohnCarnage for example, he personally replies to messages of long-time viewers during the live-stream. This gives both validation to the 'long-time viewers' that they have a special status as well as giving the idea to the audience that the live-streamer has a personal bond with his/her viewers. What I believe is important about this 'performance' is that it's vital for most live-streamer on Twitch to become successful. Live-streaming games can sound relaxing and 'fun' but at the same time is also extremely competitive: playing in a popular game category draws many viewers but likewise as many competitors fighting for the same viewers. While the game is, initially, important to a live-stream to draw in viewers, the more important part comes after. Having gained viewers through a game, a live-streamer on Twitch must use methods to make sure these viewers start watching consistently and ideally establish a loyal 'following' of viewers for the live-stream. This is best represented through the picture of this chapter: the focus of the live-stream isn't on the video game itself. Instead, the focus of the live-stream seem to be on three things: the live-streamer (Asmongold), the video on Youtube he is about to watch and 'react to' and the chat room with its viewers who are chatting. Since I am familiar with Twitch live-streams, it is easier for me to discern the 'focus points' of the live-stream. But even without this knowledge, one can see how the screen is purposely dominated by 'other screens' which the live-streamer has opened up. Placement and size of 'screens' is another strategy used to visually guide the audience to what they must be watching. In the Asmongold picture at the start of this chapter, the focus point should not be on the game, which takes the outer edges of the live-stream, a background or 'backstage'. The focus point for the audience is Asmongold himself and his 'reactions' to what is happening and the video he is about to play. This links to Malaby's (2012) idea of 'content

creation'. Digital professions have given rise to new concepts as well as new ideas of work types. For games one such new work type is called 'content creation'. Content creation is a way to describe how players in a game create their own 'content'. Content in this sense can mean a variety of things. Malaby (2012) for example discussing how in the game Second Life users in the game (players of the game) can in real-time see the creation of products by other players (Malaby 2012: 297). These products can range from clothes to appearances or even buildings. According to Malaby, this was an intentional design by the coders of the game to establish a 'share experience' of allowing users to see each other's creations (ibid.). In contrast, Malaby argues that this type of individual content creation deemphasizes social capital and social exchanges (ibid.). The notion of 'content creation' where individuals 'create' their own content seem to have become part of the live-streaming repertoire on Twitch. Many live-streamers on Twitch call themselves 'content creators'. The idea behind a live-streamer 'being' a content creator is that he or she 'makes' interesting situations happen and thus is deserving of an audience. This comes with a paradox that Malaby already hints at: individual content creation often relies on social practices or the efforts of others. What is interesting about this for live-streaming is that it seems to assume that live-streamers require a performance as a 'content creator' who makes a Twitch live-stream successful.

So far I have talked about 'successful live-streamers' and 'viewers' but I have yet to describe the relevance of gaining as much 'viewers' as possible. For live-streamers on Twitch, gaining 'viewers'; a word to describe those watching the live-stream, has several benefits. For starters, more viewers make it more likely that some of them might 'subscribe' to the live-stream. Subscribing to a Twitch live-stream requires a viewer to pay \$5 USD a month to that specific 'channel' of a live-streamer. Since every live-streamer on Twitch has their own chat room, live-streams are often called 'channels' as if trying to mirror TV channels. As a reward for subscribing, the viewers that subscribe receive some exclusive bonuses that non-subscribed viewers do not. Subscribed viewers receive specific channel specific emotes that they can use in the channels of other live-streamers as well. Furthermore, they receive a virtual 'badge' stating how long they subscribed for in the chat room, counted in months. Lastly a live-streamer can force his or her chat room to become only available to subscribers to chat in. This is called a 'subscribed only' chat room and gives the privilege for viewers that are subscribed to chat in. For a live-streamer, subscription money can be a constant revenue stream. It is important to note however that in most cases Twitch takes a 50% cut of every subscription. This cut can, in exceptional cases, be



changes to more favour the live-streamer, as was done with some very successful live-streamers who received an exclusivity contract to only live-stream on Twitch.<sup>20</sup>

Another source of potential revenue for a live-streamer on Twitch is donations. Donations are direct payments, usually through the monetary system of PayPal, by which viewers can directly donate money to a live-streamer. As an incentive to donate, viewers who donate can add a (personal) message to the donation. Quite a few live-streamers portray these messages live during the live-stream. While there are no set rules, live-streamers nearly always read out donations given to them as a reward for the donation. This can be another incentive for viewers to donate. Usually more popular live-streamers can have a very busy chat room, it might be hard for a viewer to have his message seen by the live-streamer. Through donations, the chances of having the live-streamer personally read these messages out are a lot higher. More importantly for the live-streamer, donations are not shared with the platform of Twitch and go straight to the live-streamer. It is often for this reason many live-streamers main profit margin is direct donations, although this equation changes for live-streamers who have hundreds of subscribers. A last source of revenue that I want to mention is sponsorships. An important factor in gaining a stable and sizeable viewer count is the chance for private companies to sponsor portions of the live-stream or collaborate with the live-streamer to create merchandise. Sponsorships come in many shapes and forms. Usually a game developer can 'hire' a live-streamer to sponsor parts of the live-stream. This means that the live-streamer will play the game sponsored by the game developer for a set time during the live-streams. Rules around these deals are regulated on Twitch and require the live-streamer to notify to the audience that a portion of the live-stream is 'sponsored', usually abbreviated to '#Ad' (advertisement). Private companies can also establish merchandise deals with live-streamers. Personalised products can be made and sold as the 'live-streamer's' merchandise, incentivising the viewers of that live-streamer to buy these products from the retailer. In return, the live-streamer receive a cut of the revenue. For a more extensive analysis of this, please see my earlier research (Uytenbroek: 2020).

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<sup>20</sup> <https://screenrant.com/twitch-signs-exclusive-deal-variety-streamer-cohhcarnage/#:~:text=Variety%20Streamer%20CohhCarnage-,Twitch%20Signs%20Exclusive%20Deal%20With%20Variety%20Streamer%20CohhCarnage,the%20Twitch%20Safety%20Advisory%20Council>. Accessed on 28/11/2020

## Chatrooms and emotes

An important part of Twitch live-streams are the individual chat rooms accompanying each live-stream. So far I have only briefly discussed chat rooms but there is a reason I included the chat room as part of the picture of the live-streamer Asmongold. Chat rooms are not directly part of Twitch live-streams, they are always on the side of every single live-stream on Twitch. If a viewer would use 'full screen mode' to only zoom in on the live-stream, the result would be the following:



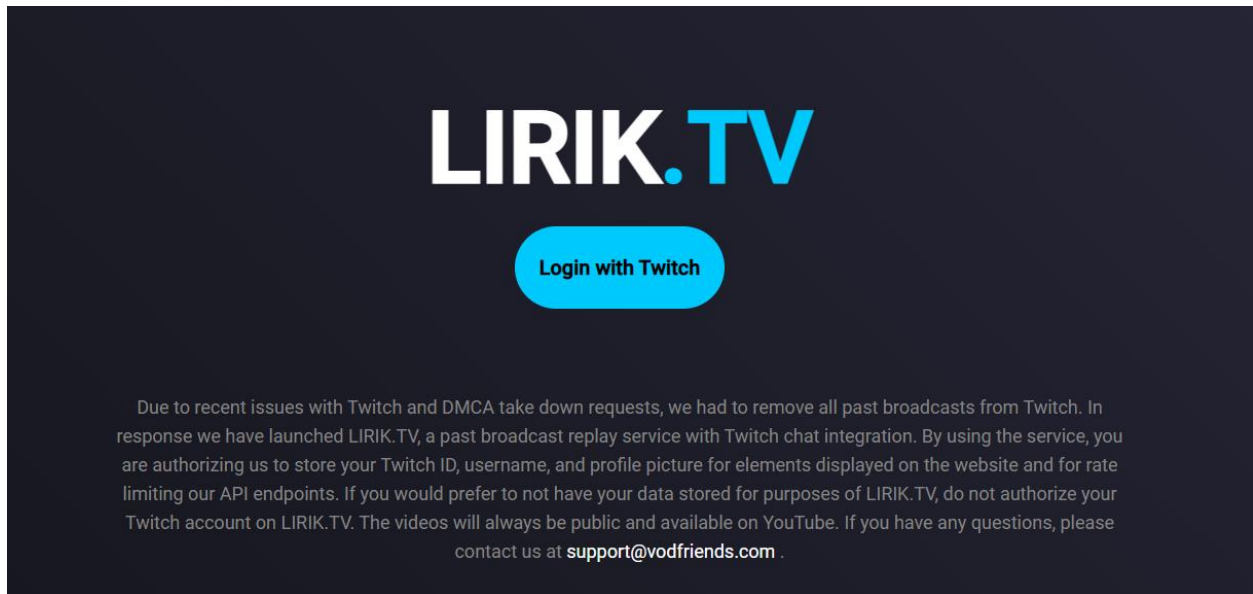
*The same picture of an Asmongold live-stream, now fully zoomed in and without a chat room.*

This may give the impression that for live-streams on Twitch a chat room is really just a sideshow and not really relevant to a live-stream. Several researchers highlight the importance of a chat room. Hilvert-Bruce et al. (2018) explore why an audience watches a live-stream or like watching a particular live-streamer. With the use of surveys, they describe different potentially relevant terms to measure why someone watches a live-stream (Hilvert-Bruce et al. 2018: 61). One of the results details how a sense of community is key for creating a successful streaming career (Hilvert-Bruce et al. 2018: 65). In more practical terms, a streamer can for example greet each viewer or show his or her appreciation of their participation (ibid.). This greeting and 'building of community' is a method used by live-streamers to bind an audience to their live-stream. This is done through a chat room. Because every single live-stream on Twitch automatically has a chat room, users can in theory chat 'with' every single live-streamer or more precisely on every single live-streaming channel. The reason I use the word 'users' instead of 'viewers' here is because of an important difference between viewing and chatting. Where anyone with

an internet connection can view live-streams on Twitch for free, chatting requires the creation of a Twitch account. Without a Twitch account, a viewer cannot use the chat room in any Twitch live-stream. This nuance is highlighted by Hilvert-Bruce et al. as well when they note that while a chat room is an important part of the live-stream on Twitch, their survey target group was primarily one already quite vocal on Twitch (Hilvert-Bruce et al. 2018: 65). Thus, it may not be representative of the majority of the viewers (ibid.). By 'vocal' they imply the viewers that make (extensive) use of the chat room to chat with other users and respond to what is happening during the live-stream. This creates a sense of community according to Hilvert et al. as chatting users can chat and form friendships with other users in the same live-stream. Live-streamers themselves make use of a chat room as well. Recktenwald (2017) uses micro-analysis to understand how a live-streamer interacts with his/her audience by the use of a chatroom. Recktenwald makes use of two 'Goffmanian frames', the 'interview frame' and the 'play frame' to describe the different ways a streamer potentially interacts with their audience and switches between these 'modes' (Recktenwald 2017: 69). The interview frame is used by the streamer to interact with his or her audience about things not directly related to the game (ibid.). The play frame instead is used by the streamer to describe what they are doing in a game to the audience, to keep a form of interaction between streamer and audience going (ibid.) To relate this to the case of the live-streamer Asmongold, the picture shown is a case of what Recktenwald calls 'the interview frame'. In this instance, the game becomes part of the background as Asmongold focuses on talking 'with' his chat(room). Often Asmongold will read out questions or comments made in the chat room and respond to them. The 'play frame' in contrast is more of a commentary from the live-streamer while playing a game. Many live-streamers will make it an active role for themselves to comment on what they are doing. This has two reasons. Firstly they know that interacting with the audience is important for the success of a live-stream. Simply playing a game and being quiet is too much of a risk: there is simply too much competition from other live-streamers and being quiet does little to bind viewers to the live-streamer. Secondly live-streamers are quite aware that not every viewer is actually watching the live-stream. In fact, as commented by a live-streamer called CohnCarnage during a live-stream while he was playing a Japanese game: 'The reason I have English spoken language on in this game instead of Japanese is because I know there are quite a few of you (viewers) that are only listening to the live-stream'. The 'play frame' is thus also a strategy to make sure a live-streamer can reach as broad an audience as possible. The combination of these two 'modes of interaction' make it so that a live-streamer can constantly be 'interacting' with their audience. Like with most terms however, there are some nuances. The difference between the 'play frame' and the 'interview frame' can be very narrow. For example, a

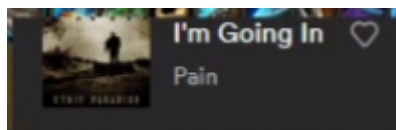
live-streamer playing a game may be in a 'play frame' to discuss what is going in the game, then look over at his or her chat room and answer a message from the chat room. This quick switching between 'play frame' and 'interview frame' is an important tool for Twitch live-streamers to have, as they can highlight their 'interactive-ness' with the audience. These types of interaction are important for the 'creating a successful live-streamer career' through the 'establishment of a community' that Hilvert-Bruce et al. discuss (Hilvert-Bruce et al. 2018: 65).

## The issue of copyright and DMCA



*A statement from a live-streamer known as Lirik regarding the deletion of VOD's. Due to the forceful takedown of all VOD's on Twitch, Lirik has created a new website in which his live-streams are stored for his viewers to access.*

One final important part of live-streams on Twitch that I wish to discuss is music. The relevance of music on Twitch is that it changed the affordances of live-streaming on the website. When I was doing my fieldwork back in June/July of 2020, Twitch live-streamers I was observing made use of music. This music was often licensed music and had a function in the live-streams. It could be used to start a live-stream. Asmongold for example used several 'introduction songs' to invite the audience to the upcoming show. Asmongold would start a live-stream with a screen stating that 'the live-stream will soon start' accompanied with some music. This for me is very reminiscent of the way theatres play background music before a show. Theatres often make use of music to set a mood or atmosphere for their audience, something I will discuss in chapter 5. Likewise Twitch live-streamers use the same method, when the main content, usually the live-streamer (in a theatre the show), is not present. If we go back yet again to the picture of the Asmongold live-stream, someone astute enough can see the following information bubble:



This is a visual representation for the viewers of the current song playing on the live-stream. Music during live-streams is usually meant as background noise. If we relate this back to the ‘play frame’ Hilvert-Bruce et al. used, the music can be seen as a way to have ‘something going on’ while a game is being played. This can be helpful when the live-streamer has to take a break, the audience still has ‘something’ to see or hear. Another usage of music during live-streams on Twitch was ‘outro songs’. Outro songs are used at the end of live-streams by some live-streamers. Live-streamer Lirik for example used licensed music as a way for the live-stream to end. For the followers of his live-stream, this was a way for them to say goodbye to the live-streamer as well as to their fellow community members in the chat room.

In October and November of 2020, Twitch was hit by an increasing number of copyright strikes or ‘DMCA’s’. DMCA stands for the Digital Millennium Copyright Act and is an US law created in 1998. In legality it is meant to protect copyright holders from having their works infringed upon without consent (and usually payment).<sup>21</sup> In more practical ways it has become a legal tool for copyright holders, in this case major record labels, to issue ‘copyright strike’ requests on those infringing upon their copyrighted content. Twitch live-streamers have been using licensed music for years. As mentioned at the beginning of this chapter, Twitch has two systems: live-streaming and VOD’s. VOD’s are ‘video-on-demand’ that allow users of Twitch to watch past live-streams. Since licensed music has been used in past live-streams, these became a reliability for many live-streamers on Twitch when copyright strikes were issued. Due to the large amount of live-streamers on Twitch, record companies decided to focus their copyright strike against the platform of Twitch itself. By doing so, they forced Twitch to either to establish a system of payment to copyright holders or stop using any (of their) licensed music. In Facebook fashion, Twitch decided that it couldn’t be held responsible for the actions of its users, yet this did little to dissuade infringed upon copyright holders. To avoid (large) additional costs, Twitch decided to do what some live-streamers have called ‘the nuclear option’ of ‘advising’ each live-streamer to completely delete any VOD that could have possible music copyright infringement. Since most live-streamers used music as part of their live-streams, most decided to ‘purge’ and deleted all VODs as to limit risks of copyright infringements. These actions didn’t solely affect past live-streams however. Ever since the ‘DMCA issue’ of Twitch, live-streamers have been very cautious in using any licensed music. Ironically enough, this hasn’t stopped the practice of using music during live-streams. Many live-

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[https://en.wikipedia.org/wiki/Digital\\_Millennium\\_Copyright\\_Act#:~:text=The%20Digital%20Millennium%20Copyri%20Act,Intellectual%20Property%20Organization%20\(WIPO\)](https://en.wikipedia.org/wiki/Digital_Millennium_Copyright_Act#:~:text=The%20Digital%20Millennium%20Copyri%20Act,Intellectual%20Property%20Organization%20(WIPO)). Accessed on 6/12/2020

streamers decided to instead use game licensed music. These music tracks were specifically made for games and thus 'free' of the influence of major record labels as the copyright owners are the game producers. Still these 'copyright strikes' have marked a change in the live-streaming landscape on Twitch. This brought with it discussion amongst live-streamers about the nature of live-streaming games itself and its copyright implications.

Live-streaming on Twitch has always been a 'grey area' of legislation. Grey area usually refers to 'the border between legal and illegal' often due to non-existing legislation being available on the specific issue (Cambridge Dictionary).<sup>22</sup> For licensed music, live-streams which used licensed music were technically an infringement upon copyright but before October/November of 2020 mostly ignored by major record labels. The infringement of copyright for a live-streamer is in the fact that this licensed music is being broadcasted to other individuals who listen to it freely. This is technically also true for individuals who purchase a song and play this loudly enough to where others can hear it: the purchase is technically only for individual use unless otherwise specified. For many cases of this sort of 'copyright infringement' this is again a 'grey area' as while technically sharing music freely is illegal, regulating this behavior is often not possible. For live-streamers on Twitch, DMCA has provided this form of regulation for major record labels. It has meant a complete shift away from any possible risk of copyright infringement. Yet live-streamers now make use of game music, isn't this also copyrighted material?

This question brings forth the nature of the debate on Twitch in recent months. While ideally a live-streamer can make the live-stream revolve around 'themselves', playing games is still the thing that even the 'popular' live-streamers do. The influence of DMCA is not only felt with Twitch live-streamers. As we will see in the upcoming chapter four, a gym live-streaming exercises with licensed music in the background also had to deal with the effects of this law. In this sense the repressive effects that DMCA enacts will have effects towards live-streaming as a medium. This effect becomes more apparent when we think more about the extend of copyright in a digital space. Twitch live-streamers are almost exclusively game live-streamers, meaning they may do other things besides playing games, but will for the most part be playing some form of digital game. However videogames are also copyright material that like music are bought for a single individual. In other words, purchasing a game gives the individual the right to play but not to share the game with others. Live-streaming a game is thus a dangerous position: technically game developers can use copyright strikes to force live-streamers to stop using copyrighted game content. As discussed however, many live-streamers have started using game music

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<sup>22</sup> <https://dictionary.cambridge.org/dictionary/english/grey-area>. Accessed on 4/12/2020

to fulfill the role of music during live-streams. Why do game companies not follow in the footsteps of record labels and copyright strike Twitch or individual live-streamers? The answer is quite simple: the game industry benefits from public exposure from live-streamers who often function as ‘influencers’ for their games. Going back on the different ways live-streamers make money, sponsorships from game developers are often the most lucrative contracts for live-streamers. While contract details are kept hidden, live-streamer Asmongold has hinted that one contract specified that playing a game for four hours would result in a payout of \$200,000 USD by the game developer.<sup>2324</sup> For the game industry, live-streamers have become an effective marketing tool to reach their target audience. Considering the amounts game developers are willing to spent on ‘big’ or ‘popular’ live-streamers, it can be deduced that games marketed this way stand to gain from using live-streamers as marketing tools to promote their games. Despite all this, many both inside the live-streaming world as well as outside of it will see the live-streaming of games as a hobby rather than as a career. Viewers of live-streams often ridicule notions that live-streaming is a career, mocking the idea that the live-streamer is doing something more than simply playing a game. This sentiment allows for what Abidin (2016) calls ‘subversive frivolity’. To recall, Abidin defines subversive frivolity as ‘..as the under-visibility and under-estimated generative power of an object or practice arising from its (populist) discursive framing as marginal, inconsequential, and unproductive’ (Abidin 2016: 2). The subversive frivolity of live-streamers on Twitch becomes more visible when analyzing how viewers react to sponsorships. Sources of revenue are a source of contention as well. Viewers or followers of the live-streamer who also make use of the chat room are quite vocal in their protests of a live-streamer ‘selling out’ to different companies. Direct sources of revenue can therefore be problematic for the live-streamer as it affects their status as ‘just a gamer playing games’. Part of the ‘performance’ of Twitch live-streamers seem to be in the fact that they can portray themselves as ‘casual gamers’ while also being professional live-streamers who make deals with different companies. This can be directly linked to Abidin’s (2016) case of Singapore Instagrammers who rely on a mixture of professional Selfies (advertorials) and ‘authenticity’ through behind-the-scenes ‘personal’ Selfies (Abidin 2016: 1-16). Where Selfie Instagrammers seem to use behind-the-scenes Selfies, live-streamers on Twitch also have their methods for establishing their ‘authenticity’ as ‘casual gamers’. A live-streamer called Lirik for example hosts an event every Sunday called ‘Sub-Sunday’ where subscribers can vote on the games Lirik will play that Sunday. Other live-streamers, such as CohnCarnage and Asmongold, have repeatedly stated the lucrative advertisement they declined because ‘it wouldn’t

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<sup>23</sup> [https://www.reddit.com/r/LivestreamFail/comments/ipms5p/asmongold\\_got\\_offered\\_200000\\_for\\_a\\_single/](https://www.reddit.com/r/LivestreamFail/comments/ipms5p/asmongold_got_offered_200000_for_a_single/). Accessed on 4/12/2020

<sup>24</sup> <https://www.svg.com/273621/this-streamer-was-offered-300k-for-one-stream-2/>. Accessed on 4/12/2020



fit the show' or 'I know you guys wouldn't like that'. Regardless of whether these claims are true, the effects for the loyal followers is that the live-streamers are re-affirmed as 'authentic casual gamers' instead of professional live-streamers that are specifically trying to sell their products or make advertisements. The chat room interaction adds to this authenticity being given the perception that 'anyone' in the audience can ask a question and receive a reply by the live-streamer. This can give the audience a feeling of 'being close' or 'being personal' with the live-streamer regardless of the fact that most chat messages are ignored or even moderated by chat room 'mods' (short for moderators). The idea that live-streamers 'are just being themselves playing a game' is why adverts can (temporary) break this illusion. The live-streamer is not 'playing a game he/she likes' but is now 'selling out' by being a professional live-streamer. For live-streamers it is thus an active task to match being professional enough for companies to be interested in sponsorship with the idea of the 'authentic gamer' that many viewers have of live-streamers on Twitch. The 'random' remarks of declined contracts and playing games subscribers have voted for are strategic tools or 'subversiveness' on the part of the live-streamer to affirm their authenticity.

## Chapter 4: Sportpraktijk Brielle

When the Covid-19 pandemic hit many governments struggled with creating new regulations to curb infection rates. In the Netherlands, Dutch prime minister Mark Rutte instituted what he called an ‘intelligent lockdown’ for Dutch society. In practise this meant that many businesses in the Netherlands were enforced new regulations to comply to new health standards. For office firms or larger organisations this above all meant a working from home rule for employees. For smaller business which couldn’t afford this remote “luxury”, it meant stricter business regulations or in some cases a complete shut-down of business practises.

It was in light of this situation that I learned that my local gym would start with ‘live-streaming’. My situation as a Master student researcher had been precarious, pandemic regulations had changed my research landscape to the extent that regular or ‘classical’ field work was no longer feasible. Thus I jumped at the opportunity to do research on what I thought would be an interesting topic. Both larger businesses as well as smaller businesses started ‘live-streaming’ to fill the gap of standard business practises. For smaller businesses this approach seemed especially vital: they had no other way<sup>25</sup> to enact their usual business and to adhere to government regulations. Yet while live-streaming seemed like an ‘innovative solution’ to the lockdown problem, I also wondered how the people whom I describe as ‘new users of live-streaming’ would re-create a part of their business practises into a live-streaming format. Would adjustment only entail a laptop with an internet cable or would it demand more? Would it require a different performance, for example?

Sportpraktijk Brielle, my local gym, was the first case and here I closely followed the creation of a live-stream by a ‘new user’ base. This case has by far been the most helpful in understanding the process of live-streaming from the perspective of a relatively ‘new player’ to the field and using the technology. Before I discuss the reason why this specific gym started live-streaming however, I first want to give a description of the gym pre-Covid as I would like to describe my own my affiliation with it.

Sportpraktijk Brielle is a medium-sized<sup>26</sup> gym with over 500 clients situated in the town of Brielle. There are different ways people imagine a gym and Sportpraktijk Brielle is certainly not a regular gym. Usually

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<sup>25</sup> I will describe these different ways later on in the gym and theatre case.

<sup>26</sup> It is hard to distinctively define what a ‘medium-sized’ gym is. There are websites for ‘measuring’ this, such as: <https://heartlinefitness.com/5-basic-rules-thumb-sizing-fitness-centers-clubs/>. However even these don’t provide hard handles, thus medium-sized in this should be seen as something subjective. Accessed on 16/11/2020

people who talk about a gym are actually referring to a ‘fitness gym’.<sup>27</sup> Fitness gyms require little personnel as the clients mainly do cardio exercises<sup>28</sup> on a machine themselves. Thus, a fitness gym has to invest heavily in kind (gym machines) but has few operational costs (personnel). Sportpraktijk Brielle is nearly the opposite: it focuses heavily on physical exercises under guidance of an instructor or coach. Besides this, it also has gym machines for cardio but has few of these compared to an average fitness gym. The focus on physical exercises instead of cardio is also a strategic move for them competitive wise: local rival gyms are fitness oriented gyms. There is also another strategic choice: the target audience of an average fitness gym is usually within the age category of 14 to 60 years of age.<sup>29</sup> In contrast, the heavy focus on group lessons means that the relatively untapped audience of the age group of 60+ has a place at Sportpraktijk Brielle. Unlike fitness gyms who have little personnel costs however, Sportpraktijk Brielle has about 6 full-time instructors. These factors are not only important to keep in mind for economic reasons but also for the eventual consequences of Covid-19.

Before talking about my affiliation with the gym, I should briefly discuss the phenomenon of membership cards. Like many other gyms (including fitness gyms), Sportpraktijk Brielle makes use of membership cards. Each member buys a membership card against a set price which is worth 10 classes. Once these 10 classes have been serviced to the member, he/she has to buy a new membership card if they wish to continue. The setup of paying in advance for 10 classes is a smart psychological trick: people feel more inclined to follow all 10 classes as to not ‘lose out’ on money invested.

Personally I have been a member of Sportpraktijk Brielle for 7 years now. Before starting at the gym, I had been a devoted swimmer with 6 certificates. However eventually the options of swimming classes ran out and I had to find a new sporting activity. What attracted me to Sportpraktijk Brielle was a motivation shared by other members of the gym. The focus of the Sportpraktijk on group classes where four to ten members would exercise together changed the social dynamic by having members of the gym work together on exercises during a workout. Where a fitness gym focuses on the individual, the Sportpraktijk focuses on the collective. The result I felt personally: I was more motivated to attend each ‘class’ or ‘session’ as not going not only meant I was being lazy, it also meant I ‘let the group down’. This

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[https://en.wikipedia.org/wiki/Health\\_club#:~:text=A%20health%20club%20\(also%20known,the%20purpose%20of%20physical%20exercise](https://en.wikipedia.org/wiki/Health_club#:~:text=A%20health%20club%20(also%20known,the%20purpose%20of%20physical%20exercise). Accessed on 16/11/2020

<sup>28</sup> <https://www.verywellfit.com/everything-you-need-to-know-about-cardio-1229553#:~:text=Cardio%20exercise%20simply%20means%20that,the%20most%20fat%20and%20calories>. Accessed on 16/11/2020

<sup>29</sup> This is a rough general estimate and certainly not true for every single person in that age category (like myself).

focus on the collective is represented in the spatial layout of the rooms of the gym as well. The Sportpraktijk has a special room designated as 'Sportcafe' (coffee room) where social interaction between its members is stimulated. This is attractive especially for the elderly members of the gym as for them going to the gym is as much about exercising as it is a social activity with peers. A collective focused gym does however come with risks. The focus on social relations and group activities would make regular business during a pandemic lock-down hard to enact.

### The fallout of Covid-19: government regulations

Mid-March 2020 Covid-19 began to affect the gym as government regulation regarding the pandemic sharpened. As part of these new regulations, gyms, fitness's and sport clubs would have to close down until the 6<sup>th</sup> of April of that same year. As April slowly came into sight, this lock-down on gyms was extended to the 28<sup>th</sup> of April. This would again continue in the same fashion: the new extension pushed the lock-down of gyms to the 20<sup>th</sup> of May. By the announcement of this last date of the lock-down<sup>30</sup>, the Sportpraktijk decided it needed to do something to still provide exercising services. Early in April it had already asked its members to contribute classes on their membership cards as an act of donation. Yet as the lock-down continued and running costs for the Sportpraktijk maintained (6 full-time instructors and rent for the building), other options were offered as well. Small-scale exercising equipment were lent out to members in return for contribution. On Youtube several instructors made instruction videos of classes. The links of these videos were private and only available for those who contributed towards the classes (not with a standard membership fee).<sup>31</sup> Still all these efforts failed to evoke the 'class gym' feeling that many customers or members had become familiar with. They instead relied on members to participate on an individual basis. This contradicts with the collectivistic norms of the gym. This contradiction is perhaps best represented in the statistic of a survey the Sportpraktijk did a month after these measures:

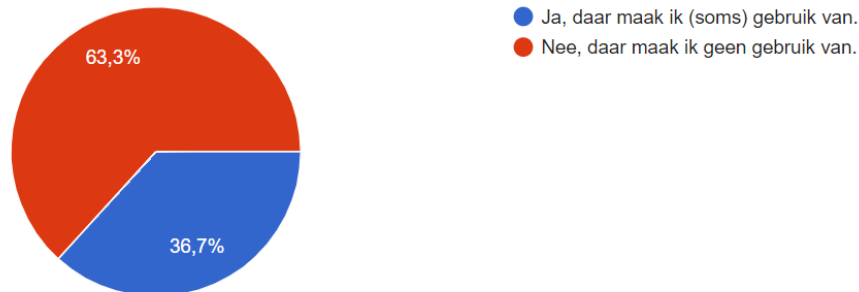
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<sup>30</sup> The announcement of this new lock-down was on 21 of April 2020.

<sup>31</sup> Which is not a fool-proof method, technically a link could be shared. Links were not ID-locked behind an account. It relied on trust, re-affirming the collectivistic mentality of the gym.

Op de website van Sportpraktijk Brielle worden nu regelmatig, in de vorm van YouTube-filmpjes, lessen geplaatst. Maak je daar gebruik van?

332 antwoorden



*A survey initiated by the gym to its members. Question: 'On the website of Sportpraktijk Brielle lessons in the form of Youtube videos are now regularly posted. Do you make use of this?'. Blue: 'Yes, I make use of it (every now and then)'. Red: 'No, I don't make use of that'.*

A majority (63,3% of 332 members) did not make use of Youtube instruction videos. The relative unsuccessful videos may say more about the platform it's hosted on rather than anything else. Youtube already has a plethora of exercising videos to watch. Another factor could be in the focus on the group classes at the Sportpraktijk which have now become solo training instruction videos. Whatever the case may be, the Sportpraktijk realised it needed to do active classes again. Yet how could these classes be established when lock-down regulations forbade physical classes? The answer seemed to be live-streaming.

### Collaborative creation of a live-stream

On the 25<sup>th</sup> of April I and all members of Sportpraktijk Brielle received a mail. It was an update mail detailing how the gym would stay closed at least until the 20<sup>th</sup> of May. In the mail the writers ask the gym members to give feedback and thoughts on new ideas for the gym. They ask this because 'After all, *together we are Sportpraktijk Brielle*'. In this same mail, they clarify that they are 'looking at the possibility of livestreaming'. This was my hook as researcher to jump in. However jumping in meant more than purely observing a process. It meant a collaboration with Sportpraktijk Brielle as they were still very unsure about what exactly they were going to do. After all, how does one 'live-stream'? Initially the answer to this question for me seemed simple: all you needed to live-stream was a laptop/PC, an internet cable and possibly a camera. Little did I know that there is a lot more to be done, not only on the technical side but also on the social side, to set up a live-stream.

In return for allowing me to do research at the gym, I was to help them set up the live-stream wherever I could. I had some experience with live-streams (see Twitch case) but I didn't want to oversell myself either: I am not a computer technician. The actual 'process' of the live-stream took some 4 months. During this process there was a 'four-way' creative process between one specific instructress at the gym (one of the owners), a local computer technician who I also knew, an Italian business owner who ran the software behind the heartbeats on the screen and myself. I call this a 'four-way creative process' because I feel like each of us contributed to the overall success. The computer technician gave advice on practical technical details, how to set up a camera and use live-streaming software like OBS.<sup>32</sup> The Italian business owner provided help with the live-stream: through his company, which had a deal with Youtube<sup>33</sup>, the instructress could live-stream at her gym while also making the heartbeats besides the live-stream visible. My role was mainly about giving direct feedback as I was a participant of the live-streams. I cycled along with her in all the session, so any problems that arose (no audio, no live-stream, no heartbeats etc.) I could relay to her directly through WhatsApp. Thanks to my previous experience with live-streamers on Twitch, I also knew a slight bit about what live-streamers on Twitch typically used. Thus when the Italian business owner proposed to the instructress she use a software program called OBS, I could give more details on what it meant and did. Lastly the role of the instructress herself was the most complicated one. Not only did she have to gather information from all parties and compress them to make them work for her, she also had the role as the performer during the live-stream. She was the only instructor at the gym who dared to live-stream, the others didn't want to try, for several reasons which I will detail later on.

My role in helping establish the live-stream turned out to be a great entry into participant observation. Helping start up the process of the live-stream meant I got to see all the effort and time that go into 'making a live-stream'. Yet what does that even mean, 'making a live-stream'? So far I have vaguely talked about screens, OBS and heartbeats but this will sound alien to someone unfamiliar with this specific live-stream. With all the background information now laid out, it is now time to describe a Sportpraktijk Brielle live-stream.

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<sup>32</sup> OBS (Open Broadcaster Software) is free software which allows an user to better control a live-stream.

<sup>33</sup> Youtube hosted the live-streaming for the Italian company of SelfLoops. Where SelfLoops provided the heartbeats, Youtube provided the system and servers the live-stream was hosted on.

## A hit-cycling live-stream: sweat, heartbeats and a screen

For a member to engage with a live-stream at Sportpraktijk Brielle, he/she needed several tools. These tools include: a hit-cycling bike, a tablet, remote internet access, a Selfloops account, a specific heartbeat sensor and a mobile phone (smartphone) which can login to a Selfloops account. What is important to understand here is that my assumption of 'just live-streaming' was oversimplified: live-streaming actually requires a lot of tools and demands certain skills from its presenter (live-streamer) and audience (members of the gym).

Of the tools I mentioned a few will probably resonate as familiar whereas others will not. The most obvious tool required is a hit-cycling bike. Hit-cycling (Officially HIIT but usually abbreviated to Hit) is a term to describe in-doors cycling on a specific bike.<sup>34</sup> It usually is an intensive one-hour workout where the cyclists differ in a combination of speed and/or power. A Hit-cycling bike allows its user to determine power through a rotor. Rotating the rotor clockwise puts more resistance, or 'power', on the pedals of the bike, making it more difficult for the user to move the pedals and thus "move" forward. Because hit-cycling is in-doors, a cyclist doesn't actually move forward in a space although one does remain in physical motion. Speed is defined by the user's ability of moving the pedals. The combination of power and speed determine how 'intensive' the workout is. In here lies (a part of the) agency of the hit-cyclist: he/she can decide the intensity of the class, although we will see this slightly contradicted later on.

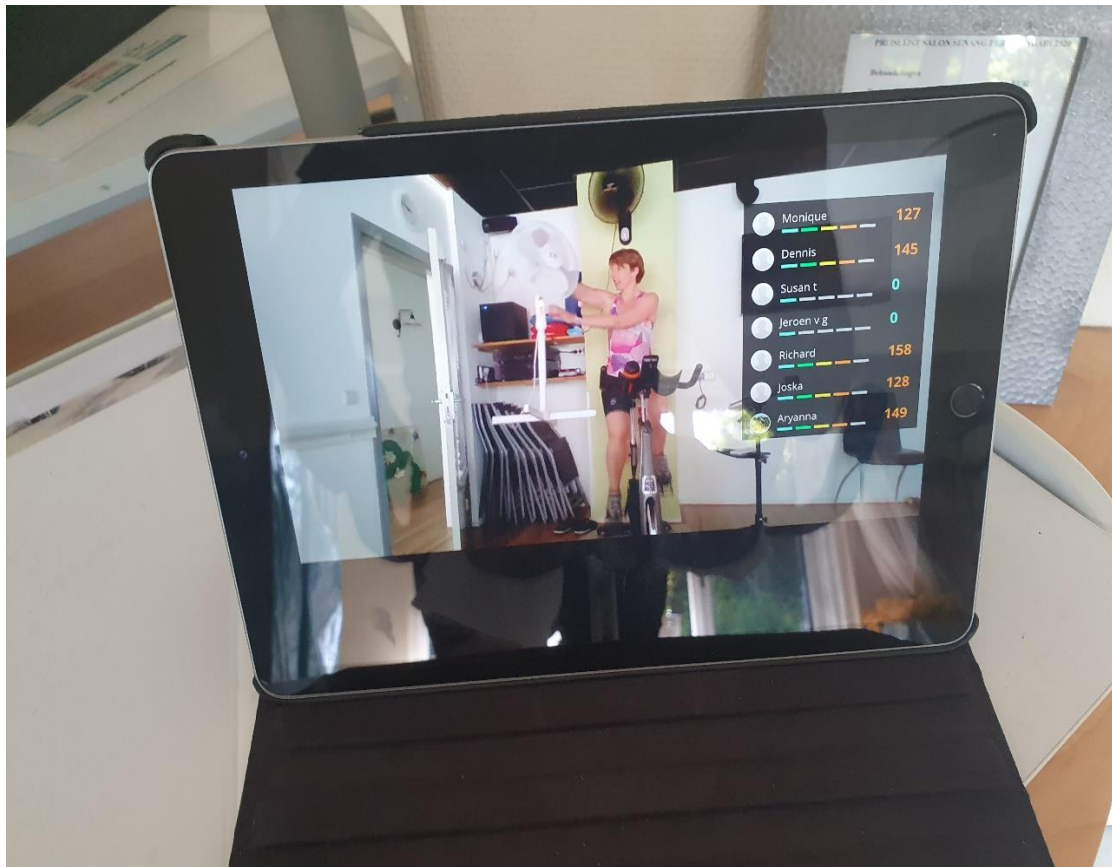
Two other important, closely linked, tools to explain are a Selfloops account and heartbeat sensor. A heartbeat sensor is exactly what the word describes: it's a sensor detecting a heartbeat in the form of a band around one's torso. The sensor itself is the most valuable part as it can, in close proximity, detect a heartbeat of a user. A normal heartbeat sensor also has the ability to connect to a device, like a cardio device, which can then portray the heartbeat of a user. The specific heartbeat sensor for hit-cycling also has Bluetooth built-in. This means it can connect and show a heartbeat to more devices, such as to smartphones or tablets. This means that users on their bikes can see their own heartbeats but this same feature can also be used by the gym to portray all the user's heartbeats on a screen.

Selfloops is a private company who specializes in portraying heartbeats on a screen. As an Italian based company they primarily specialise in supporting cyclists in portraying their statistics (heartbeats, distances etc.). They have expanded their services to broaden their client base and have focused on gyms as a way to sell their product. Sportpraktijk Brielle makes use of two of their services. One service

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<sup>34</sup> HIIT means High Intensity Interval Training. See more at: <https://www.bikeradar.com/advice/fitness-and-training/hiit-interval-training/>

is called 'Group Fitness' which the website argues promotes: 'More engagement, More performance, More personal'.<sup>35</sup> This service in essence allows Sportpraktijk Brielle to portray heartbeats on a screen through software produced and licensed by Selfloops. The second service is called 'Selfloop Streams' which I would call the 'live-stream' service. These specific services provides a platform through which a client of Selfloops can live-stream their class or activities. To provide this live-stream, Selfloops has a deal with the platform of Youtube to where it's users can privately live-stream. According to the gym instructress who was doing the live-streams, this part was essential for her to live-stream on Youtube as she needed 1,000 subscribers on Youtube to live-stream.<sup>36</sup> This was however ironically contradicted in my second local case of the theatre who nuanced that you can live-stream for free on Youtube, but you only need 1,000 subscribers if you wish to live-stream on a mobile device. The combination of a heartbeat sensor with a live-streaming platform creates the Sportpraktijk Brielle live-stream as seen in the picture below.



Picture 1: A shot of Aryanna's live-stream with heartbeat sensors of the members participating.

<sup>35</sup> <https://www.selfloops.com/products/groupfitness.html>. Accessed on 18/11/2020

<sup>36</sup> <https://support.google.com/youtube/thread/3612372?hl=en>. Accessed on 18/11/2020



All these tools and services are problematic for both the gym itself as well as its members/users. The gym has to pay service fees to Selfloops to provide the live-streaming/heartbeat services. They also have to have bulk capital in the form of hit-cycling bikes ready to be transported to gym member's private homes where they can cycle in 'Covid-19 proof safety'.

For members the issues were several. For starters, hit-cycling as a gym activity was the only form offered by Sportpraktijk Brielle to its members at the time. Members therefore had to like this sporting activity, or at least find it bearable as an activity to participate. If they were interested in hit-cycling, they needed to buy a specific heartbeat sensor with the price of 69,95 Euro. They also needed all the tools mentioned in the introduction of this chapter and not every member has access to all these tools. Lastly they needed certain technical skills as well: to participate online requires an usually overlooked understanding of computer technology. While some have already mastered these skills due to experiences with technology, others did not have this luxury and had to instead learn from the start.

### A first 'live-stream'



Picture 2: Preparing for the what would be Italian hit-cycling live-stream on a hit-cycling bike at the gym.

As mentioned previously, Selfloops was the Italian company that provided the service to live-stream, or more specifically: to live-stream with heartbeats on a screen. Early in the 'production' or 'testing' of live-streaming at Sportpraktijk Brielle, several volunteers (including myself) participated in a live-stream from Selfloops at Sportpraktijk Brielle. In theory, according to what the instructress, Aryanna, told me, this was meant to show how to live-stream, the possibilities of having doing hit-cycling with the heartbeat of participants on the screen. So it was that a few instructors, myself and some other member volunteers were waiting early in the morning for the live-stream to start. This class wouldn't be with our known instructress Aryanna but would be done by someone from Selfloops. With all of my gear in tow (see picture above) I sat ready to cycle to what I assumed would be a live-stream in English. I had my Ipad with the live-stream on it, my UBL remote sound to amplify the live-stream or listen to my music whilst cycling, my personal towel and personal drinking bottle (both have 'Dennis Uytenbroek' written on them, but it's hard to see in this picture) while I was eagerly awaiting my first gym live-stream.

The first issues started early on. At the designated time of 10AM, there was still no live-stream. This was a bit strange, but everyone could be late every now and then. At about 10:10AM I got slightly worried and I started experimenting with the Ipad to see if I could somehow make the live-stream start. I was successful in part: reloading the webpage meant that I now could click to start something. This already put a seed of doubt in my mind: usually 'play buttons' on Youtube signify a video, not a live-stream. After all, you cannot really 'forward' a live-stream: it is live; happening at that very moment. Nevertheless I relayed this information to Aryanna and another instructress, Susan, who were also in the gym with me.<sup>37</sup> I shared my slight suspicion that it was a bit strange, but we were all mostly happy that at the very least we had something to watch. After Aryanna quickly relayed this information through Whatsapp to all other member volunteers (who were cycling from their own homes), we each began to cycle and 'warm up' in preparation for the live-streaming performance. This swapping between different media reflects Madianou and Miller's (2013) idea of polymedia. In the case of Aryanna, Whatsapp serves as a way to quickly relay information that the members need to receive quickly. This in contrast to something like e-mail which would most likely not quickly be read by the members. The use of different platforms each with their own communicative context and thus affordances reflect the concept of polymedia (Madianou & Miller 2013: 182-184).

The live-stream 'started' and it was interesting to note that there was quite an audience. Reading through the various names next to all the heartbeats on the screen, I assumed that we were the odd

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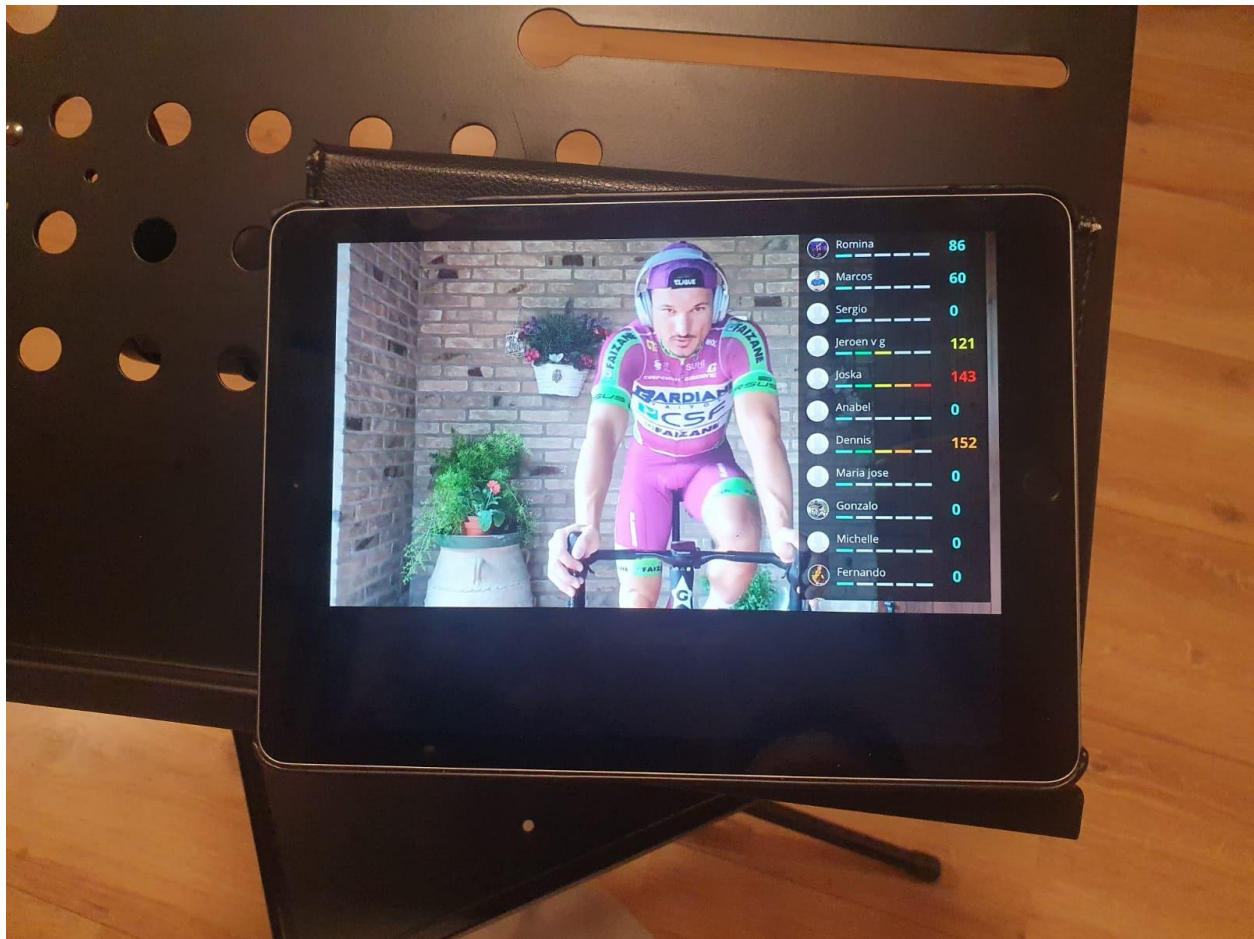
<sup>37</sup> Nearly all the live-streams were from my own home, but this first experimental one was at the gym itself. I was in a separate room from two instructresses on my hit-cycling bike.

one out: almost all the names seemed Italian to me. Still, I rationalised, that this made sense since the company, Selfloops, was based in Italy. Clearly it would have its main client base there. Eventually what I assumed was the instructor of the live-stream hopped onto a bike on the screen. He started giving instructions in Italian. While my basic Italian is familiar with words like 'forza' for power, many of his instructions completely eluded my understanding. The same was sadly true for every participant from Sportpraktijk Brielle. One other thing that was actually observed by Aryanna was the fact that the cyclist often read from a piece of paper with instructions, a script so to speak.

After this very interesting first 'live-stream' was over, I decided to discuss this with Aryanna and Susan who were not yet done with the 'live-stream'. I wanted to discuss what I thought were interesting aspects without necessarily blaming anyone, so I asked how they liked the live-stream. They partly jokingly and partly frustrated mentioned that it was impossible to follow the class due to the language barrier. Susan also shared her suspicion that there was nothing 'live' about this live-stream. I agreed with her and stated that this was probably what on the streaming website Twitch was known as a 'VoD'. A 'VoD' is essentially a live-stream that has already happened, but can be replayed as a video later on. Thus the person who is looking at a 'VoD' is arguably not looking at a 'live-stream' as there is nothing live about it anymore. The interesting aspect both Aryanna and Susan complained about was the lack of interactivity. For them, the interaction was key for the reason they wanted to live-stream as this allowed the members to feel like they were once again doing classes, not watching a pre-recorded Youtube instruction video.

This 'live-stream' experience made me think of what exactly 'live-streaming' means. For me, coming from a background of primarily game live-streams on Twitch, live-streaming had certain values. It meant being 'truly live' in the sense that one was performing at that very moment in time. It also meant an only partially scripted performance. What it also meant, which was shared by Susan and Aryanna, was a certain interaction with the audience. On Twitch.tv this interaction is mainly done through a chat room. With live-streaming at Sportpraktijk Brielle, plans were in place to do the same but limitations on the side of Selfloops made this feature impossible to implement in their structure. However a chat room would most likely not have brought the same affordance that a Twitch chat room would have. Aryanna already made use of Whatsapp to quickly give updates to the members, a chat room would fulfil the exact same role. Yet why did Selfloops give Sportpraktijk Brielle this 'live-stream' as an example of the work they could do? It was certainly not a great marketing tool, especially not towards the members. I think the answer comes down to two factors: inexperience and different notions of what constitutes as

a 'live-stream'. When I discussed this issue in an interview with Aryanna, she discussed how the company was actually quite small. Her contact person at the company also happened to be the ambitious owner of it. This owner had recently started investing into the business of live-streaming due to the huge demand in Italy at the time (early lock-down regulations existed there already). For him, live-streaming was also a new experience he had to learn. Another interesting aspect was that this same owner called the example a 'stream' and not a 'live-stream' like I do. This may seem like an insignificant detail, but from a technical standpoint 'streaming' refers to the ability to instantly watch videos whereas 'live-streaming' offers the same but demands that it is being done 'live'. In this specific case, this nuance might be a bit skewed: the not-so-live-stream had been a live-stream, but it had already taken place and was thus not 'live' in the sense of the word anymore. Yet it is possible to see the complexity of the simple word 'live'. When exactly can we classify something 'live' and 'not live'. If something happened 'live', do you still refer to a recording of such a 'live event' as a 'live performance'? Depending on the context, you may or may not refer to it. When people talk about musical festivals for example, they talk about having watched a video of a 'live recording', implying it happened on stage in-front of an audience somewhere sometime live. Yet when my friend who watched F1 with me says he 'only really wants to see F1 live' he implies that he wants to see it the moment the race happens: not a video of it but a live performance. These nuances show how complex a 'simple' definition of 'live-streaming' can be and how interpretative it can be to both an audience as well as to a performer.



*The live-stream in its early stages. Set inside the gym, the tablet screen shows an Italian cyclist giving instructions in Italian to us. Few of us understood him. We laughed together in the absurdness of the situation.*

### **The risks of live-streaming: dealing with problems while everyone is watching**

After the not-so-inspiring but interesting first live-streaming class, Aryanna decided it was time for her to try and 'do' a live-stream. Yet this time I would not be cycling in the gym with them. This wasn't merely to experience the distance of the live-stream, but also a pragmatic choice. As Aryanna put it: 'we don't want the police to fine us for breaching Covid rules and I have seen them patrolling recently'. Clearly, government regulations were still quite important as *raison d'être* of the live-stream. Still my role remained much the same: participate and inform if anything went wrong. As could be expected at the first time of truly live-streaming, a number of issues arose.

Activating all my tools required me a solid 5 minutes of setup. I had to adjust the bike to my standards (high seat and height steer), make sure my Ipad was logged in on Selfloops website so I could enter the live-stream when it became live. Besides this, I had to have a Selfloops app on my phone so my

heartbeat could be sent 'to' the live-stream, both of which were hosted by Selfloops. After making sure I had my towel and water ready, I was waiting for the first Sportpraktijk Brielle live-stream to start.

The first issue was a connection issue. Since the live-stream service is provided by Selfloops, members who wish to see the live-stream have to login to their Selfloops accounts, should have registered for the class in advance and then be able to join the live-stream through a button on the website. Usually this button becomes active when the live-stream starts or just a bit before it. This time the button did work, yet it lead only to a waiting screen which stated that the 'live-stream had not started yet'. Since I was no longer at the gym but in my own home, I had to resort mostly to waiting. I kept refreshing and because of this, I observed how a moderator with an Italian name, most likely the Selfloops owner, got into the live-stream digital area. After he left, the live-stream 'started'.

This is when the second issue arose. While the screen no longer portrayed a 'waiting to start' text, it now lacked completely in visuals. We, the viewers of the live-stream, could hear Aryanna speaking, but saw nothing. Technically she could have started cycling here and shouted instructions, yet this was a testing phase and solutions needed to be found, according to Aryanna. While I later learned Aryanna had again tried to contact the Sefloops owner, she actually managed to resolve this issue herself. Remembering how he had stated to include a full website link name (<https://>), she could somehow resolve the issue in making sure her webcam became visible on the screen.

About 30 minutes after the live-stream was supposed to start, I finally got to see a live screen of Aryanna. She was mainly on her phone, constantly checking with other participating members if they could see anything. Seeing her struggle, I called her and informed her that the live-stream was now really working, all the members had to do was refresh the live-stream. In an interview sometime after this class, I learned how stressful this experience had been for her. She had been in constant phone calls and mail contact with the Selfloops owner to make sure her live-stream would start working. While he did assist her in one issue, she managed to resolve the other issue by herself. Despite the stressful situation and the fact several members were waiting for her to begin, she kept a level head and tried every problem solving think she remembered in her short time learning. All of this didn't go unnoticed to the second instructress, Susan, who was also participating in the first few live-streams as a viewer. In informal talks with her later, she confided that 'I could never do that, I would just stress and freak out and have no clue what to do'.



In another live-stream, an entirely new issue arose. In every gym class, hit-cycling or else, music is being played. Usually by stereo in a physical room, small businesses usually pay a fee to BUMA,<sup>38</sup> a Dutch organisation for musicians charging a fee to businesses so that they can play copyrighted music. The BUMA also has a license specifically for online behavior. However, this arrangement is not integrated into Youtube's algorithm system. When hit-cycling live-streaming also starting playing music, many of these songs were copyrighted. Since Selfloops hosted their live-streaming services on Youtube, it meant the live-stream of Sportpraktijk Brielle was on Youtube as well. Youtube and recently also Twitch have as mentioned in the previous chapter have had quite an upheaval in what is called a 'DMCA'<sup>39</sup> issue. DMCA has been institutionalised by large music corporations as a way to 'copyright strike' content creators on Youtube. The algorithm on Youtube is designed in a way where it can automatically 'detect' audio being played: if the algorithm detects a certain pattern of a copyrighted song, it could have consequences. Sometimes the punishment is a warning to the content creator or even no consequence at all. Yet sometimes, the harshest policy is enacted. In this case, based on DMCA law, it is assumed that music corporations can instruct the algorithm on Youtube to automatically 'copyright strike' or 'DMCA strike' videos/live-streams containing their copyrighted songs.<sup>40</sup> This effectively means, in the case of a live-stream, that the live-stream is instantly shut-down. This is exactly what happened in one live-stream at the gym. About three songs in, when a new song just started playing, the entire live-stream was cut. Aryanna managed to restart it, but quickly adjusted the music to not include this specific song. She later remarked she found it ridiculous, since she already paid annual tribute to BUMA and yet she was now immediately shut-down by copyright. What I think is relevant to notice here is that the transition from the 'offline' to 'online' carries a lot of adjustments. New realities forces one to adapt and change behavior to fit the system. Clearly live-streaming was more complex in adjustment then both Aryanna and myself had predicted it would be.

One interesting technical failure seemed very insignificant. In a few of the classes, the heartbeats on the screen stopped working. In one class, they stopped working for all participants of the class. Normally hit-

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<sup>38</sup> <https://www.muzeikenrecht.nl/muzeiekgebruik-en-buma>. Accessed on 19/11/2020

<sup>39</sup>

[https://en.wikipedia.org/wiki/Digital\\_Millennium\\_Copyright\\_Act#:~:text=The%20Digital%20Millennium%20Copyri%20Act,Intellectual%20Property%20Organization%20\(WIPO\)](https://en.wikipedia.org/wiki/Digital_Millennium_Copyright_Act#:~:text=The%20Digital%20Millennium%20Copyri%20Act,Intellectual%20Property%20Organization%20(WIPO)). Accessed on 19/11/2020

<sup>40</sup> The reason I note that 'it is assumed' here is because there is a lot of speculation about how precisely the algorithm works on many websites, including Youtube. Since algorithms are often corporate property, people can only analyse the results of DMCA-takedowns and cast their predictions on how the system works. Therefore this explanation should be seen as a general consensus on how the algorithm works with DMCA-takedowns, rather than a precise explanation of the algorithm on Youtube.

cycling classes are instructed along an average percentage a cyclist's heartbeat has to go to. These percentage heartbeat categories are calculated by someone's age. This makes it so my 25 year old body can have a '90% of max heartbeat' category which is a set heartbeat (amount of heartbeat pumps per minute) of 185. For someone older, say 70 years old, this same 90% category would be somewhere around a specific heartbeat of 140.<sup>41</sup> These general categories of 'relative to maximum heartbeat' make it so that general instructions can be given to the entire group rather than to a single individual. An instructor can tell the group to go to '90% heartbeats', implying that each has to 'translate' this to a specific heartbeat. This translation is a digital literacy as mentioned by Ng (2012) and boyd (2014) in the sense that the members have the literacy to understand both the data the heartbeat provides as well as the verbal instruction that accompany them. For hit-cycling, this translation (calculation) happened automatically so that one did not have to memorize calculated heartbeat per category. During hit-cycling classes, Aryanna would give generally give instructions on where 'to go' with the heartbeat category, for example: go to 75%, go to 85% (of the maximum calculated heartbeat). A screen which everyone (including Aryanna) could see would then show how everyone was doing. If instructions were to go to 85%, it was expected to go to 85% and not being on that heartbeat in a certain amount of time meant slacking off. This is part of the 'controlling' function of an instructor: he/she has to guide the class to heartbeats while also motivating everyone to do so. In practice this meant that Aryanna would tell specific people to work harder or go faster if their heartbeat was still too low. In one class, all these heartbeats were gone. This was very strange for both participants and Aryanna as the participants had to go to a certain heartbeat category yet only they themselves could actually see this. There was no controlling factor available to Aryanna anymore. To make up for this lack of control, Aryanna decided to do something she normally didn't. After every hit-cycling class, members receive post-report statistics on their heartbeat and how they did. This single time where there were no heartbeats on a screen, Aryanna gave all of the participants feedback through this post-report. In another instance of this heartbeat failure, only my heartbeat didn't work. I noticed the consequences for myself: I was slacking off more because I knew I was no longer being actively checked. The ability to control seems essential to a successful hit-cycling class.

### Live-streaming to a digital audience: 'being yourself' or a performance?

So far I have discussed technical tools and ways of control during a live-stream, yet I haven't in detail discussed the social skills and what I would call *performance* required to live-stream. During the hit-

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<sup>41</sup> <https://www.heartfoundation.org.nz/wellbeing/managing-risk/how-to-check-your-pulse-heart-rate>. Accessed on 19/11/2020



cycling classes, there were two observable changes that I noticed that I want to discuss. The first is the ability to talk to 'no one' during a live-stream. While the hit-cycling classes tried to establish an interaction through heartbeats on a screen, it still lacked the interpersonal communication that we are so familiar with in (pre-Covid) day-to-day situations. When live-streaming, Aryanna was cycling on her bike in front of a camera. We, the participants and audience, could see her, but she couldn't see us personally. All she could see was a statistical representation of our heartbeats on a screen. This gave her enough groundwork to motivate us (go faster, more power) but it still meant she was essentially talking to an empty room. I think this is important in the sense that it requires a very specific sort of performance which is a skill not every person has. Where a theatre performance lacks direct interpersonal communication, in the sense that the actor is not 'talking directly' to the audience but rather giving a show, live-streaming makes this even more complicated by removing interpersonal communication altogether. With a live-stream, there is still an audience, but it is usually hidden away in the digital spectre, silent observers who watch you but you cannot see yourself. In many live-streams, the focus of the show is centred on a single individual who has to give a performance. I believe this specific performance requires far more technical and social adjustment as the performer has no direct feedback of an audience.

The second behavioural change I observed was the closing or leaving of a live-stream at Sportpraktijk Brielle. When Aryanna was done with the class, in the sense that all songs had ended and the program was over, she would almost instantly close the live-stream. I thought this was a bit strange. In times before Covid, we would have the same classes and we would clean our own bikes and talk informally. What was different now? My analysis of this is a combination of two factors. The first factor is the one just discussed: talking to 'no one' and the lack of interpersonal communication makes leaving more 'easy' although perhaps more 'awkward' as well. I think this is also the second factor: in a normal 'real-life' conversation with two individuals, there is a unwritten social rule or ritual that has to be completed before leaving a conversation. Purely talking from the perspective of Dutch culture, one individual cannot randomly leave a conversation. There are certain social values and expectations that forbid this behaviour as this would be seen as 'rude'. Instead, there is an almost 'social ritual' a leaving party has to complete before 'officially' ending a conversation. An individual who wants to end the conversation cannot simply walk away, he/she has to follow unspoken rules. First off, the leaving party has to give some hint or explanation that they want to leave. The other, receiving party, then has to somehow acknowledge this and in some way agree to this. If the leaving party has this 'social approval', he/she can then formally announce their withdrawal from the conversation. After waiting on a reply of this

same formal goodbye from the other party, the party of two individuals can then officially walk away from the conversation.

This same notion I believe holds true in the case of a live-stream. Yet a live-stream lacks direct interpersonal communication: there is no physical body that you can really say goodbye to or perform this ritual with. If a live-streamer was to initiate this ritual they would hear no reply from the quiet observing audience, they might imagine it, but wouldn't physically hear any. I think this is the reason for the 'abrupt' change of leaving that Aryanna does compared to non-digital encounters in the gym. The lack of the social leaving ritual makes it both easier and harder: it's easier to 'leave' as there is no physical body to do the ritual with, but it becomes harder or more awkward precisely because there is no interpersonal communication: no one is responding to a goodbye of departure. I have seen this behaviour with Twitch streamers as well: they would use a specific, arguably new, ritual to end their live-stream. Nearly all of them would announce their departure, transition into a frame where their physical body was no longer visible and play what they called 'outro music' to compensate for this perhaps otherwise 'awkward' departure. I believe this shows how live-streaming, at least in the form of a single performer, demands a different performance from 'regular life' encounters.

### A live-streaming performance: technical and social skills

A valuable method during my case of Sportpraktijk Brielle has been interviews. Interviewing as a method allowed me to uncover the performative effort from the perspective of Aryanna. I have done two extensive interviews with Aryanna, the live-streamer and part-owner of the gym. During the second interview, I made use of photo-elicitation. In the gym case this meant watching previous live-streams and having Aryanna reflect on these.

During my first interview with Aryanna, I actually described my observations of a different kind of performance that I thought she had with her audience. I think it's relevant to portray how she (partly) disagreed with me on this. In her response to what I called performance, she noted that 'I am just being myself, otherwise it would become unnatural'. When I asked about what I thought were abrupt endings to the live-stream, she responded that: 'I feel like at that point of the live-stream, I am no longer of value'. When looking back at past live-streams, she also reflected on something I hadn't observed: 'Do you see those bags in the corner of the room? That's so untidy..'. This probably reflects her general sentiment of the term performance: 'For me performance is really about being tidy, neat and professional'. For myself as participant observer I hadn't paid any attention to what she would call 'untidy' parts of the room she live-streamed in. It shows a difference of perspective between what a live-streamer thinks people notice about a live-stream and what I as a social scientist think people watch during a live-stream. My observations were focused on her social performance, yet her notion of performance was a different kind of performance. I do not think one view of performance necessarily devalues the other, I think it highlights how a concept like performance is interpreted in different ways.

During the two interviews, we discussed a number of topics. In one topic I asked if they knew any what I saw as 'experienced users'. At the start of my research, these 'experienced users' had been Twitch live-streamers. In hindsight I realise it was quite naïve of me to assume that this specific class of live-streamer would be applicable and relatable to every new live-streamer. I thus received a lot of confused looks when I mentioned Twitch, no one at the gym had heard of this website. Luckily Aryanna was kind enough to do try to answer the question of inspiration. She mentioned how she looked at PopSugar, a Youtube channel which does fitness videos.<sup>42</sup> What Aryanna noted was good about PopSugar was: 'The way they present it, the interaction they have with their audience, the alternative exercises they do and the way they are so motivated. I think it's really important to show you are not just doing your job but to

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<sup>42</sup> <https://www.youtube.com/channel/UCBINFWq52ShSgUFEoynfSwg>. Accessed on 19/11/2020

show enthusiasm to what you are doing'. I think this portrays the values Aryanna was trying to perform during her live-stream as well. It also shows how Aryanna did look at 'experienced users', they were just different from what I had initially imagined they would be. PopSugar was a far more appealing and informative channel to learn from compared to any game live-stream on Twitch.

A main thread of the interviews was the required social and technical skills. As you may have noticed I have only really talked to Aryanna when speaking of live-streaming. Yet in the introduction of Sportpraktijk Brielle, I remarked that there were 6 full-time instructors at Sportpraktijk Brielle. So how come I haven't spoken to these other instructors about live-streaming? The answer is simple: they never tried to participate in live-streaming classes. The reason why might be in the diverse ways live-streaming demands certain skills.

In one of my interview questions, I asked if she (Aryanna) felt as if she was building upon an already established foundation of live-streaming or inventing something new. She firmly noted that she felt like 'I have to set up everything with the live-stream, this is probably because I am the most technical out of the team (of instructors)'. Clearly there was a slight frustration by the lack of participation of other instructors.

This lack of participation by other instructors is perhaps best explored through several examples. During my photo-elicitation, I showed several short fragments of live-streams that Aryanna had performed. In one of the very first live-streaming classes, the audio and image quality were both quite bad. This was before Aryanna decided to make use of the OBS software and got a new camera. Reflecting on this Aryanna notes: 'I was so clumsy and searching for what worked. It was something new for all of us, it wasn't in our system at all'. In later classes, she was sitting quite 'stiffly' facing the camera directly. 'I really didn't have my own technique under control. I needed to face the camera directly or otherwise the sound would fall away completely (for the audience of the live-stream)'.

Reflecting back on the class where the live-stream was cut due to a DMCA take-down, she reflected on that: 'That was the worst one. I was sitting on my bike with stomach pain because of all the nerves. I had to quickly think of something to try to do something'. She also described how: 'Those copyright claimant's had gotten to her (live-stream)'. 'I think they are watching us'. This reflects what Bucher (2017) refers to as 'algorithmic imaginary'. For Bucher algorithmic imaginary is the way in which people imagine and experience algorithms and how these imaginations of algorithms affect them personally (Bucher 2017: 31). In this way, Bucher argues, notions people have about algorithms affect how they deal with these algorithms (Bucher 2017: 40). In this way, people affected by an algorithm can have 'no

clue' about how the algorithm technically works, but can still imagine how they work and think of methods to work around them or to 'manipulate' the algorithm (ibid.). This dualistic context of not precisely knowing the algorithm but having imaginations about it is reflected by Aryanna. She mentions how 'they', the copyright claimants, got to her and how 'they are watching us'. This personification of specific individuals out to 'get her' is undermined by Kiviat (2019) in a discussion on how algorithms treat individuals. According to Kiviat, algorithmic predictions are imbued with normative viewpoints in the sense that these predictions always hold individuals accountable, regardless of any intention or factors of chance (Kiviat 2019: 1151). These normative viewpoints in algorithms exist because they suit the goals of the corporations controlling them (ibid.). In the case of Aryanna, the copyright claimants were not specific individuals out to get her but rather an algorithm detecting a song that was copyright. The fact that this live-stream was private and the fact Sportpraktijk Brielle paid annual fees to BUMA, a music license corporation in the Netherlands, was irrelevant along the normative lines of the algorithm. Still, as Bucher also notes, people tend to become creative and try think of ways to 'manipulate' or 'deceive' the algorithm. After the live-stream session was taken down by an algorithm, rather than not using licensed music altogether, Aryanna decided to use another CD with songs which did not contain that one specific 'algorithm detected' song. This time, there were no 'DMCA take-downs' of the live-stream.

During my second interview, two instructors 'interrupted' the interview. I decided it might function for my interview to ask questions related to Aryanna's live-stream. The first instructor was Susan who walked in when we were discussing the DMCA take-down live-stream. When Aryanna noted that 'I am not easily thrown off balance' when discussing her forced adaption to using different songs, Susan noted that 'I would have instantly stressed about it'. On the same day of the DMCA take-down, Susan saw Aryanna: 'I saw her (Aryanna) heated and stressed out at the gym, when I learned why I wasn't surprised in the slightest'.

When Susan left the room again, Aryanna told me: 'I was planning on making a protocol for doing a live-stream. You know, for many of these instructors (like Susan) the technological barrier is just too high. Maybe with this protocol it can motivate them to try'. A central piece of the interviews had been about Aryanna's ability to both socially adjust to the new situation and also adjust with the new technology. Whereas a technology barrier could perhaps be overcome with a protocol, things like stress-resistant, quick-thinking, problem solving and an interaction with a purely digital audience were social skills which

were perhaps too much to ask for. I think this is even better reflected when another instructor, Erik, came during my interview with Aryanna.

When Erik entered the room and started asking me and Aryanna questions, I was initially a bit frustrated by this disruption of the interview. Yet I figured I could use this to my advantage and gain some valuable knowledge. To do this, I asked a lot of questions about live-streaming and Aryanna's role in it. He noted in short that 'Aryanna has a 'feeling for' live-streaming. She can improvise in moments when it is required of her. I wouldn't be able to do the same'. When I asked about whether live-streaming was a skill to him, he gave a detailed answer. 'You must have a feeling for these digital techniques and systems, with that you can reach a high performance. Of course it is also important that she is enthusiastic and can present herself. In these times that is what you need to make this (live-streaming) successful'. When I asked why they hadn't consulted or hired someone experienced with live-streaming, Erik responded: 'Specialisation is expensive. You are talking about thousands of euro's just to hire someone to do the technical side of live-streaming while you still have to present it yourself. It is just not do-able for smaller businesses'. Lastly I asked him what precisely the value of a live-stream was. 'I think the power of live-streaming is in the fact you can interact with people. That really gives the feeling for people (members of the gym) to exercise (with us). It really gets personal with this interaction and that is an extra motivation for people to exercise. In contrast to a video which is one-way-traffic. Live-streaming is not necessarily a dialogue but you can still indirectly guide people through the heartbeats and advice'.

Erik is the husband of Aryanna and together they established Sportpraktijk Brielle many years ago. It is possible Erik is slightly biased in the performance of his wife Aryanna, but I do tend to agree with him based on my findings. From the experiences I have seen, especially the 'things going wrong', live-streaming really demands quick adaptation and a resilience to stress or at least a focus on problem solving during moments of stress. It is therefore not really strange she was the only participant of live-streaming at the Sportpraktijk: for many both the technical and social are too complicated and scary to adapt to. They would rather wait for alternatives to what they are familiar with: classes with direct interaction with members of the gym. Perhaps their patience was rewarded, as coming May government regulations had shifted for gyms. Gyms could still not have classes in-doors, but they were allowed to do classes outside in the open air. In this motion, the other instructors finally felt back in their forte: live-streaming was no longer the only available option to do gym classes with.

## A future for live-streaming exercises?

As mentioned earlier the Sportpraktijk conducted a survey amongst their users. As part of the questions, one zoomed in on the willingness of people to participate in live-streaming classes.



*Question: 'The Sportpraktijk offers livestream classes through Youtube (classes on a regular time which you can follow through your computer or tablet). Are you interested in making use of these? Blue: Yes, I am interested to use livestream classes. Red: No, I have no interest in this. Orange: I am not sure what this entails, but I do have an interest to find out what it means. Green: I am already making use of livestream classes.'*

Out of the 328 respondents, a majority of 66,8% had no interest in partaking in live-streaming classes. They, much like the other instructors, would rather wait out another option to become available. This is not very strange, while participants had to perhaps go through less 'technological barriers' than instructors, even live-streaming classes couldn't mirror the interpersonal, interactive classes that pre-Covid had been. Does this mean that live-streaming has become obsolete? A helpful tool no longer necessary? To answer this, I want to briefly look at the alternative to live-streaming: outdoor classes.

As an alternative to live-streaming at the time, I also participated in outdoor classes. These were actually quite nice, especially given the hot summer weather of May and June in the Netherlands. The soothing cool breeze was especially comforting in times where standard AC was no longer allowed due to Covid regulations. Outdoor classes meant going to a local public space, usually a local grass field, to do exercises. The Sportpraktijk was quite smart in using the terrain: football goals were used to tie TRX cables on through which a member could do push-ups with while having the stability of the metal football goal. Being with other members in a group also meant there were informal talks and

interpersonal communication again, something that had been lacking with live-streams. Covid regulations did however include less fun aspects: every member had to clean his/her own exercising tools once finished. There were also some other issues. For starters, using a public field meant sharing this space with others. Where the gym had been a private space, the public space of a field often meant that local kids would start playing soccer during exercises. This was especially difficult when the gym decided to use the football goals: sharing meant this exercise couldn't be done anymore. There was also an as-of-yet unfamiliar issue for the gym: noise disturbance. Every gym class has music to create a nice beat for members to exercise to. Being in a public space however meant that other people could hear this music as well. They were often quite unhappy with these new noises in their neighborhood and would complain to instructors that they were being too loud in the public space. The local gym did have local municipality support in exercising in specific public spaces, but they realised they wanted to retain some goodwill with local inhabitants as well. Thus slowly class by class the music became quieter and quieter until at one point the instructors opted to not use any music at all, to the frustration of some members. Despite the glorious prospect of returning to the 'old classes', the new reality wasn't always that bright.

As a final part of my interview with Aryanna and Erik, I asked about the future of live-streaming for them and for their business. This second and final interview with situated just before Aryanna and Erik were going on a three week vacation. When I asked for the future of live-streaming, Aryanna remarked: 'I fear for the end of the live-streams. I want them to continue, but I don't see anyone else taking them over during my break. Only outdoor classes are being taken over by the other instructors'. Regarding a more long-term future of live-streaming for her business, she explained that: 'It is difficult to say. For hit-cycling live-streaming I don't really see a future. Actually for live-streaming as a whole I don't see a future, except when it starts raining outside. That would come with a lot of work: you would need to insert all these people into Selfloops accounts so you would see their heartbeats on the live-stream'. In talking about the salability of live-streams, she spoke about another class: 'Pilates would be fun to do as a live-stream, but it is less marketable. With an online training you can offer a 10 classes package so people can exercise when they want to, not at a specific set time of a live-stream. Besides this, online videos are a lot easier for me: I can record all 10 classes in 1 day and be done with it'. The departure of live-streaming was both a relief as well as a pity for Aryanna: 'Live-streaming has been very fun. I really liked learning the technical details of it. It is a shame it will stop, but it does save from quite a bit of frustration and stress.'



When talking about the possibility of feeling connected to a larger medium, Aryanna responded that: 'No I don't really feel connected to a larger platform. We really did this for our clients. I have thought about doing digital classes to an international public, by giving a class on Selfloops for example. But then again you have to talk in English all the time. If Christian (owner of Selfloops, contact person of Aryanna) would ask me to do this, I would think about it, as returning the favor so to speak'.

From these conversations and the general idea clients of the Sportpraktijk had about live-streaming it seems like live-streaming as a way to do exercises was a nice temporary interlude. Yet this almost hides all the trial and tribulation that the gym, mainly Aryanna, went through to make this method work. Setting up a live-streaming has required so much more effort and adjustment than I could have imagined. From learning how to deal with DMCA and copyright law to getting heartbeats on a screen from the technical side. It required Aryanna to learn new digital literacies as she had to become a performer as well as live-stream technician who knew how to create a live-stream. The social aspects of trying to create an interaction, the demands for a different performance and the quick-witted adjustments to obstacles along the way. It seems like too much work just to throw away after a few months' time. Does this mean there is no future for live-streaming at the Sportpraktijk at all? Clouds on the horizon may beg to differ. As of 5 November 2020, more and more positive Covid-19 tests are being registered in the Netherlands, reaching to 10,000 a day. Where government regulations during the first lockdown had forced the gym to adjust and create a live-stream, a second lockdown seems almost unavoidable. Should that become the case, gyms will yet again be included in the measures to restrict the pandemic. Slowly but surely, we may yet again see live-streaming become the platform to do exercises in a new lockdown. While it is hard to predict what the future with Covid-19 will hold in regards to live-streaming, it has become an almost necessary tool to many new users in times of a pandemic.

As of November 2020, an increasing amount of new Covid infection cases resulted in the re-establishment of some Covid regulations. One of these new rules dictated that gyms would no longer be allowed to perform classes in groups. For Sportpraktijk Brielle, this was quite a serious matter. Unlike fitness gyms, the Sportpraktijk relied heavily upon group classes. In these group classes, clients of the gym do exercises together in the same room. Upon the new November 2020 regulations, these group classes continued. However what changed was a narrative. When I asked what they would do since group classes would no longer be allowed, they replied that there had never been group classes. Instead, clients of the gym would get individual guidance with their exercises, thus it was not a collective

class but an individual one. To a certain extent this proved to be true: after new regulations each member of the gym would exercise in their own marked off 'area'. This area was marked with tape in a bright colour to ensure that the member would stay inside the 'area' or 'box'. Yet still gym classes continued with ten people being split in two groups during a workout. What I think is interesting here is that a narrative can change rapidly depending on the situation. Where once the notion of exercising with fellow members was a feature, these same classes were now 'individual classes' which just so happened to have other members participating at the same time. This change in narrative was very relevant for the gym as well: a more hardline interpretation of regulations may have seen the complete closure of the gym as its core business revolves around physical collective classes. This changing of narrative is an important strategy used by the gym to ensure they do not have to fall back on video recordings of classes or live-streaming classes to its members.

## Chapter 5: BRESTheatre



*Picture 1: The local theatre called Bres Theatre. Just in front of it is a sign stating: 'Keep 1,5 metres distance, give each other space, limit your time at this spot, wash your hands at home'.*

The Bres Theatre is a local theatre that started live-streaming shows on the 25<sup>th</sup> of April 2020. I wanted to use this third case as both a comparison but also as a different take on the phenomenon of live-streaming. With the gym case I could closely follow the entire process of setting up live-stream. With this theatre case I wanted to see a different side of 'new-born live-streamers'. From the observations and interviews collected during this theatre case I further explore the different forms that live-streaming can take.

Bres Theatre is a theatre with 200 seats situated in the Dukdalf building in the town of Brielle. The Dukdalf is a large building housing several sporting areas including a large pool, a bar, two gym halls and

several squash rooms.<sup>43</sup> It should be mentioned here that the gym areas basically serve as rental spaces: people (e.g. a primary school) can temporarily hire these areas for doing gym classes.<sup>44</sup> While the Dukdalf is primarily a building for sporting activities, it also and more continuously facilitates the local Bres Theatre.

Due to Covid-19 much of my actual fieldwork consisted of watching the live-streams of the theatre. This was both a luxury and a shame: I didn't have to leave my house to attend a theatre performance but I also didn't experience the feeling that a theatre performance together with other viewers can bring.<sup>45</sup> Before talking about the theatre live-stream, I want to briefly describe the spatial layout of the theatre within the Dukdalf building. While in practicality for my research I have only visited this specific physical site a few times, I still think it's important as the digital live-streams are still performed by artists inside the building. With this I want to follow Hine's (2017) argument that digital practises are usually embedded in material practises (Hine 2017: 319, Hine 2015: 150). Understanding techniques used in a theatre in this case can aid in understanding how the theatre performances are broadcasted digitally. A key difference between a regular theatre performance and a digitally broadcasted one is the lack of a physical audience in the same room as the performers.



*Picture 2: The stage of the Bres Theatre. In the top middle is the technical 'box' that Sander later talks about. Source: @LinqMedia.nl<sup>46</sup> & @BresTheater*

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<sup>43</sup> <https://www.dukdalfbrielle.nl/>. Accessed on 21/11/2020

<sup>44</sup> <https://www.dukdalfbrielle.nl/category/sportzalen>. Accessed on 21/11/2020

<sup>45</sup> Doing this kind of remote ethnography can be challenging. Methods such as observations can still be used but can also be harder in a digital space. For instance, watching Bres live-streams meant my observations, until the interviews, were limited to what I was presented as another viewer of the live-stream. With the interviews being in-person, I could use some measure of observation to observe the space and my two interviewees.

<sup>46</sup> <http://www.linqmedia.nl/brestheater-op-vakantie/content/item?1113449>. Accessed on 21/11/2020

*Bres Theatre* has two entrances to its building, a direct entrance as seen in the picture introducing this chapter and a second entrance which connects it with the Dukdalf. Due to Covid-19 regulations, only the Dukdalf entrance was allowed to be used by the (also much smaller) general public. Only performers had access to the ‘artiesten ingang’ in Dutch or performers’ entrance were allowed to use the second entrance in Covid times. Since due to my position as researcher I fell under ‘general public’, I will describe the spatial layout from the perspective of using the general entrance.

Coming from a parking lot and several bike stands, the Dukdalf entrance initially portrays several options for the visitor. On the left side is the pool area with a separate service desk. The pool offers a variety of facilities to local citizens with regard to swimming. From teaching kids in order to pass for their ‘swimming exams’<sup>47</sup> to recreational swimming, all set at specific times. It is partly in this swimming pool that I learned how to swim. Besides the swimming facilities, the Dukdalf also contains two large in-door ‘gym’ areas. In essence these are two large rooms in which a party that rents this place can do a multitude of things. They could play basketball, football or use equipment available at the Dukdalf to create an in-door parkour course. During my time on the nearby primary school for example, my school made almost bi-weekly use of these facilities to this effect. In the very back part of the Dukdalf, initially invisible to the viewer, are the squash rooms. Squash is a high-paced tennis-like sport where two players with rackets compete against each other by shooting a tiny ball against a wall they are both facing. I remember the times I went along with my father who used to play this sport at the Dukdalf, the noise and sweat remain memorable. Clearly there are quite a few personal experiences for me with this location. When describing the layout of this building I cannot help but recall select memories of my personal experiences in these spaces. It is perhaps this very notion people talk about when they tell me that ‘live-streaming is nice, but it lacks that.. personal feeling’. Is being personally there and experiencing a space relevant for thinking about live-streaming? Does it impact the performance side of a live-stream? In the absence of physical bodies to interact with, does the performance of a live-stream change? With the gym live-stream, I thought to observe a notable change about Aryanna’s live-stream lessons that differed from regular in-person lessons. At the same time I want to be critical of the notion that only physical can lead to personal feelings. Personal experiences are not necessarily bound to any specific space. As I will describe later on, the audience of the theatre enjoyed the digitally broadcasted

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<sup>47</sup> In the Netherlands children can receive special ‘swimming exams’. There are three of these in total: exam A, B and C. All these exams are practical: it is about swimming skills rather than knowing theories. A is the ‘easiest’ exam and is mandatory for every child in the Netherlands to accomplish. Exams B and C are more demanding but aren’t mandatory, teaching more advanced swimming techniques (such as swimming with full clothing and diving for several metres).

theatre performances despite not 'physically being' in the theatre. This is however slightly contested later on by my interviewees, who insist that 'physically being in the theatre' is important for the audience and is the reason live-streaming is not as successful for the theatre.

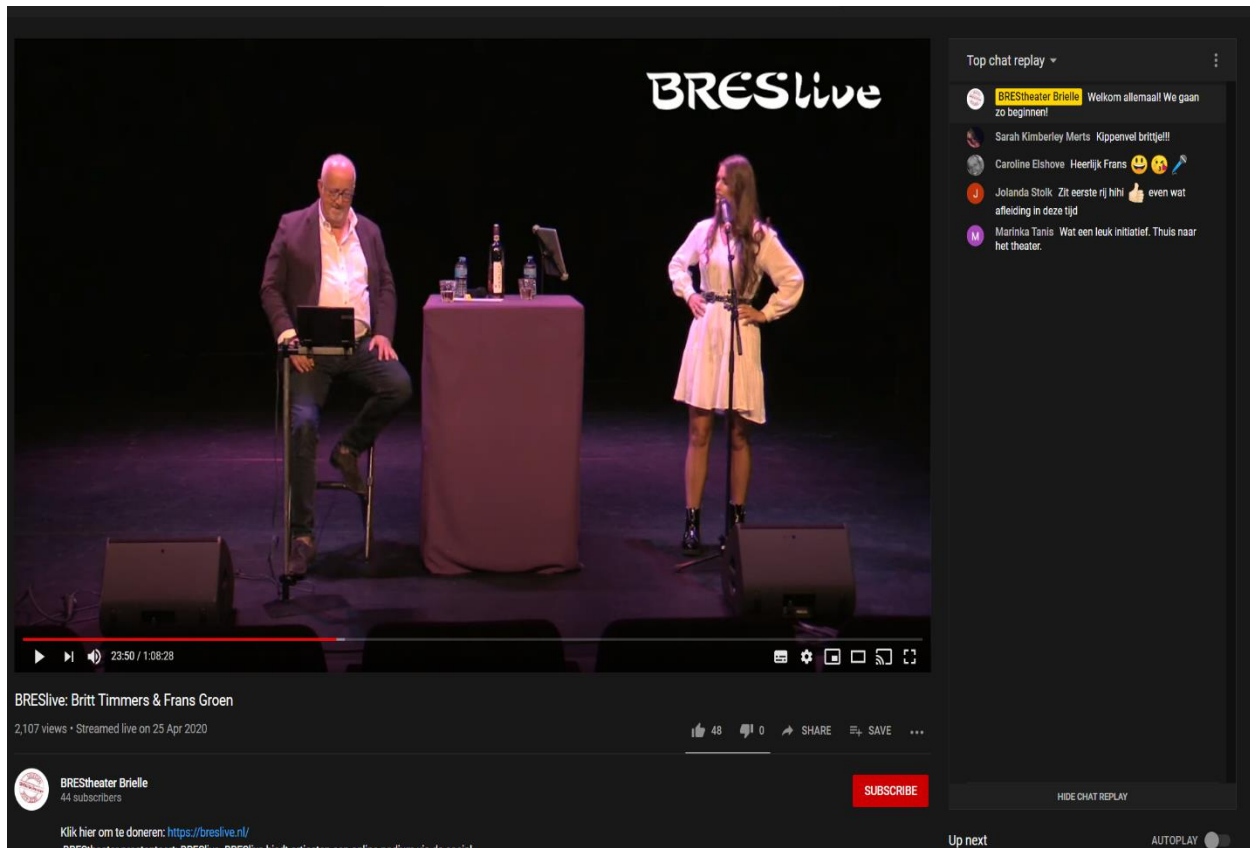
The last and most relevant space for my research is the theatre section. Again coming from the Dukdalf entrance and going to the right you come 'into' the theatre section. I call this a section as there is no clear boundaries between what constitutes non-theatre ground and theatre grounds, it's all integrated by the open area of the Dukdalf building. The theatre itself is actually up a flight of stairs on the far right of the room. Before you reach these stairs, a reception and bar will greet you first. The reception is mostly for the library that also happens to be in this right-portion of the building. This extreme efficient layout of so many facilities in a single building is a relatively new feature: only since a couple of years has the Dukdalf been renovated to accommodate the local library as well. Moving past the library you come across the Bres service entrance as well as the flight of stairs leading up to the theatre. Going up these stairs you will again come across a small(er) bar before entering the theatre itself (see previous photo). The theatre itself has ten rows of seats, with the first two rows being on even level and the third to last rows being slightly more elevated each progressing row. In the middle of the sixth row there is a space for the technical department who normally adjust the lights and manage sound levels. Artists or performers entertain the audience at the stage and also like every theatre have a (literal) backstage to prepare for the show with dressing rooms. At the back of the stage there is also quite a massive screen which allows a beamer to project images or videos. This is used by the theatre to basically at times be a temporary cinema to show certain movies which the theatre calls 'BRESFilm'.<sup>48</sup>

These descriptions of 'offline' stages are important to describe the 'online' stage that digital live-streaming is about. Despite the lack of a physical audience all performers still performed on the physical theatre stage in the theatre. While this relatively small sized theatre may have been cosy and personal for performers to interact with the audience, the transition from a physical audience to a digital one implied many changes to this. To perhaps slightly compensate the lack of a physical audience, the theatre used the same method as I have seen Twitch streamers use: a live chat room. In the upcoming chapter I want to discuss this new (for the theatre) digital theatre site.

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<sup>48</sup> <https://www.brestheater.nl/bresfilm.html>. Accessed on 21/11/2020

## The technicalities of creating a theatre live-stream



*Picture 3: The live-streaming theatre performance of Britt and Frans. One of the first performers to perform in the Bres Theatre program of live-streaming performances.*

Initially my plans for this case was to focus on two separate interviews, one interview would be with someone from the marketing department who I rightly assumed was the initiator for the live-streams. A second interview would then be with someone from the technical staff about the technical details of live-streaming. I also hoped to be able to interview some performers as seen in the live-streams about their experiences in front of a digital audience. Like so many researchers before me, not everything went according to plan. My plans on interviewing performers was met with reluctance by artists as they were either too busy or too worried about Covid to meet with me. In this sense I suppose 'busy' was a polite way to communicate disinterest in participating in the research, as many of the artists could no longer perform in the closed theatres. I did propose an online interview as alternative but since many highlighted their worries of being unable (or unwilling) to use this technology. I decided not to push much further and instead focus on the data I could gather. One of these methods was a double interview.

My planned interviews with a marketer and a technician were pushed back twice. After these interviews were rescheduled on their behalf, they proposed to do a single interview with both the marketer and the technician. I was a bit hesitant about this as I find one-on-one interviews to be a strong method to delve deeply about a subject and would complement my observations of the theatre and the live-streams. I had made questions for the marketer and technician separately. Nevertheless, I really wanted to do these interviews so I accepted their invitation to a double interview. This was a challenge for me as I had to try to bounce from a marketing or social question to a technician or live-streaming specific question as to make sure I keeping in conversation with both participants. Luckily for me both the marketer and technician knew each other very well and could provide additional information when the other was talking. From this dual interview I learned a lot about the theatre performances as well as how they live-streamed. In the following segments I want to discuss several topics they mentioned and draw from my observations on the theatre and the live-stream, reactions from the audience in the chatroom and the answers the marketer (Kim) and the technician (Sander).

When I started my planned interview, theatres were one of the first venues to close down. This was on the one hand due to government regulations being imposed on the theatre sector. However, as Kim notes 'it would also have been a PR disaster if one of our guests had gotten Covid because of us and this would have been published on the news'. An important factor to mention here is that the cultural sector in the Netherlands is partially subsidized by the national government. In more local cases, such as the *Brestheater*, this responsibility falls under the local municipality, in this case the municipality of Brielle.<sup>49</sup>

For the *Bres Theatre* the motivation to start using live-streaming was partly because of government regulations but also because they wanted to provide their audience, who Kim calls *guests*, with continued theatre entertainment. They had been in contact with Britt Timmers<sup>50</sup> who was making Youtube videos with several artists. However, Kim decided that they really wanted their guests to feel the ambiance of being immersed in a theatre setting. I think this is an interesting point as previously we have seen almost the same happening with *Sportpraktijk Brielle*: they did make Youtube videos but found that many people didn't watch this and assumed this was because of a lack of connection or interaction. With live-streaming they tried to close this gap. Kim calls the live-streaming 'filling a hole'

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<sup>49</sup> <https://www.rijksoverheid.nl/onderwerpen/kunst-en-cultuur/kunst-en-cultuurbeleid>. Accessed on 22/11/2020

<sup>50</sup> Britt Timmers is a singer who has her own Youtube channel. On this channel she publishes songs and covers of other songs. Link to Youtube channel: [https://www.youtube.com/channel/UCi\\_xcDA4cLifzjSK\\_JnQvVA/videos](https://www.youtube.com/channel/UCi_xcDA4cLifzjSK_JnQvVA/videos).



for loyal guests. Apparently live-streaming provides this element of connection for an audience that regular videos cannot. This connectivity is also highlighted by Taylor (2018) in the feeling people have of watching something together (Taylor 2018: 2).

As Sander had now joined the interview, we started discussing how the theatre live-streamed. I initially asked whether the ability to live-stream was a deal with Youtube, the platform which they were live-streaming on. Sander explained how they didn't have a deal with Youtube but had acquired the assistance of a third party. This third party, who I later learned was a young programmer called Jeroen who also provided live-stream services, would have what Kim and Sander dubbed 'a live-stream box' with him. Jeroen was not an employee of the theatre but was instead hired to help with the live-streams. This box would provide all that was required to live-stream. Obviously, I asked more about this almost magical box. This 'live-stream box' could only live-stream on one channel at the same time. This meant that the theatre could only live-stream on Youtube *or* Facebook, not on both at the same time. It made use of a wireless connection to provide 4G internet connection. I thought this was a bit strange: in the Sportpraktijk I learned how important it was to have a stable connection. Wi-Fi or ideally a direct line connection through an ethernet cable.<sup>51</sup> Almost at the end of the interview I learned why this 4G connection was so important. Kim: 'We had an issue once (during the live-stream) when the audio lowered (for the audience). The problem here in this building (Dukdalf/Bres) is that we aren't allowed to make use of local municipality internet. The Wi-Fi connection of the municipality is strong but is heavily protected and hard to get working. So we basically live-streamed (uploaded) everything through 4G. Wired internet would have been better.. but then we would have had to establish a separate connection to an ICT company which would have to go through the local municipality for cabling.. this would have required municipality support which I do not think we would have had'. What I think is really interesting about the connectivity issue is that in theory the local theatre should closely work together with local municipality, but in reality this isn't always as straightforward as it seems. Control over an important resource for live-streaming, in this case a stable internet connection, could be seen as a power struggle a la Pfaffenberger in which the theatre circumvented the established system (Wi-Fi from local municipality) by outside influence (4G remote connection live-streaming box).

Besides this 'live-streaming box', the third party (Jeroen) also brought along other pieces of equipment. Jeroen also provided two high-definition cameras to record what the performers on stage were doing and swap between 'shots' on stage. To manage these shots, he also had some software in the form of a

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<sup>51</sup> The cable which connects your computer or laptop with a modem or router which is connected to the internet. It's the most reliable and fastest internet (besides fiber cables) that you can have.

video mixer to convert video material<sup>52</sup> (film) to a live-stream. The theatre itself also had high-tier sound equipment to better record the audio of the performers on stage. The theatre had previously sometimes recorded videos of performances (like school musicals) and thus already had this material in store. Yet for Sander (the theatre sound technician) live-streaming also brought a new challenge. Sander: 'Normally we have a technical box<sup>53</sup> in the theatre (see picture of LingMedia) to manage sound quality (of the microphones) in the theatre. Yet with live-streaming we also needed someone to listen to the live-stream to see if the audio quality was alright. I couldn't do both audio managements at the same time, thus Jeroen helped me with the live-stream audio control. With some bands like the Legends we had several musicians on different instruments and then you need different audio channels for each'. Another technical component was lighting. Normally a theatre manages the lighting for their audience which is watching the show in the same room. However because much of the shows were now being live-streamed on the internet, the audience was digital. In one performance, a band called the Legends<sup>54</sup> did have a live audience of thirty people. These were volunteers of the theatre who were rewarded with a live performance, even in Covid times. Yet this show was also live-streamed. Sander: 'With live-streams you need a lot of lighting (on the stage). This was far too bright for the audience sitting in the theatre, but the show was for those watching through the live-stream. We adjusted the quality on what was best for those watching digitally'.

This focus on the digital audience was not something that emerged in the spur of the moment. When discussing which platform to live-stream on (Youtube or Facebook), Kim mentions: 'The theatre public is mostly forty plus of age. We therefore made the conscious decision to use Youtube rather than Facebook. For Facebook you need an account to watch, for Youtube you do not. Besides this, on Youtube we could have 'un-tagged links'<sup>55</sup> which we could share with our guests on upcoming shows. These would pre-performance show nothing but would go 'live' once we started the live-stream'. These 'un-tagged links' were only done before the show went live. This way, the audience could always be on time for the show to start. After the show/performance had ended, the live-stream would become

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<sup>52</sup> This is a technical process. The camera has to record live footage and convert this into a format that can be live-streamed on Youtube.

<sup>53</sup> Sander here refers to the physical 'box' or area that is inside the physical theatre and is used to regulate the sound and lighting. This 'box' can vaguely be seen in the second picture of this chapter, in the top middle part of the picture.

<sup>54</sup> A famous band locally, but with national acclaim as well.

<sup>55</sup> Links which are 'hidden' from the general public on Youtube. Through a specific link this video can still be accessed by users. It is 'hidden' only in the sense that knowledge of the specific link is required to see the video. Searching for video through the Youtube search system would not reveal the video.

public in the sense that everyone searching for them could find them on Youtube. Initially during the interview there was no comparison with other live-streamers. We had talked about a comparison between Youtube videos and live-streaming on Youtube, but not a direct comparison between two live-streamers. During my interview I decided to mention my previous two cases of the gym and of game live-streamers on Twitch. While both Kim and Sander saw little comparison between themselves as theatre live-streamers and the gym or Twitch live-streamers, Kim did mention an interesting comparison. When discussing the various equipment components required, Kim directly compared to another theatre relatively close to Bres. Kim: 'The theatre further up (in Hellevoetsluis) bought their own equipment including a camera of 2000 euro. They try to manage the live-stream on their own. But I think with us the live-stream is of far better quality'. Just as I as a researcher have seen with the gym, 'new users' compare not to a broader spectrum of live-streamers but compare closely to those doing the same thing, sometimes their rivals and sometimes their allies.

Another interest aspect I learned was in contradiction to what I learned at the gym: 'On Youtube you can live-stream for free. You only need one thousand subscribers if you want to live-stream through a mobile phone'. In my previous case of the gym live-stream I had heard you always needed a thousand subscribers to live-stream on Youtube. I would later find this wasn't the case. The idea that a thousand subscribers were necessary to live-stream had been an important reason for the gym to work with a third party. Yet this third party had also been relatively new to live-streaming and communications weren't always easy due to both parties having to use a secondary language English to communicate with each other. If the gym had made use of the programmer Jeroen, would things have been different?

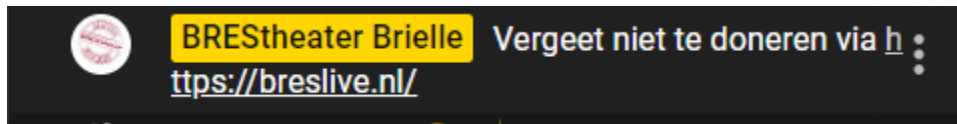
Clearly Kim and Sander had been impressed by the programmer Jeroen. Kim: 'Without Jeroen this (live-streaming) wouldn't have been successful. But then we would have searched for another..' Sander: 'another Jeroen'. Kim: 'We had a school musical recently but because of Corona we couldn't have a live audience in the room. We had to use live-streaming and the live-streaming box worked immediately to provide us the ability to live-stream. We have been very lucky with having Jeroen'. Sander: 'Nowadays every IT specialist calls him/herself a 'live-streaming specialist. If we didn't have Jeroen, it would have been hard to find someone who was actually reliable'. Kim: 'I got a lot of advertisement mails, stating they worked with live-streaming and it could be helpful for the theatre... I am glad we had Jeroen'. The hiring of an expert seems to have been an essential component for the theatre to do live-streams. As Sander states: 'I wouldn't have been able to do it (live-streaming management), I am too busy with audio quality'. This seems almost in contrast to the gym who didn't want to hire a specialist because of

all the costs. The theatre had been very fortunate in finding someone skilled with setting up live-streams, although there was even more fortune as I later learned. Apparently, the programmer Jeroen had been a recommendation from a member of the board of directors of the theatre, it had been the son someone on this board. For that reason, the son, Jeroen, also had barely charged the theatre much in costs for his services. I think it is important to keep these nuances in mind. While initially it seems like the gym was foolish not to hire someone with expertise in live-streaming, it is the question whether the theatre would have actually hired someone 'professional' in setting up a live-stream. Both Kim and Sander gave their scepticism on many advertisers who claimed they were live-stream experts. Would they really have found a 'different Jeroen' or was this a moment of the right person at the right time and place?

### Providing for the community or marketing? The use of free live-streams

I first started watching the Bres Theatre live-streams back in June of 2020. I watched three live-streaming shows the theatre did, which up to that point were all the live-stream shows. These three live performances I watched live alongside other viewers who sometimes would chat in a chat room besides the live-stream. When I first started watching the live-streams of the theatre, I thought it was odd that I could even watch them. With the gym, live-streams had been locked behind an account. One had to login to an account set up by the gym to be able to participate in the live-stream. While the gym live-stream had still been on Youtube, it was always a private live-stream: only a select few viewers could watch. In contrast, the theatre live-streams had been free for everyone to watch. The word 'everyone' may be a bit misleading here: watching a live-stream demands certain basic skills of computing from the viewer, such as opening links or navigating Youtube. This is part of the digital literacies that Ng (2012) and boyd (2014) discuss, requiring the viewer to have an understanding of some digital literacies. For the theatre, the required digital literacy was arguably less than the gym live-stream, which required more actions from the viewer and therefore also saw more viewers having issues getting into the live-stream. As I was watching the live-streams live at Bres live, it meant I would receive a specific link to watch the live-stream. Those who wished to view show could find the live-stream without a link on Youtube, but it would require an awareness of when the live-stream was and on which channel it would be. After the live show had ended, viewers could re-watch the live-stream as a video recording (like a VOD as seen in the Twitch case). Nevertheless, just like Twitch live-streams, Bres live-streams were free to watch. While I now knew why the theatre had started live-streaming (Covid regulations), I didn't yet see how this was a marketable thing, if that was even the goal of the live-streams in the first place.

Before I discussed this topic during the interview, my eye had caught something during the live-streams. In every live-stream, the moderator of the chat room would every now and then post the following message in the chat box:



Picture 4: a donation link. The message from the moderator in the chat room says: 'Do not forget to donate at (website link)'.

When I started discussing my observation of the donation with Kim and Sander, Kim quickly narrated the train of thought that had gone into making the decision. Kim: 'There are theatres out there who try to maintain performances by doing paid live-streams. In some theatres there is a 'exclusive live-stream shows' where filming is not allowed. Usually live-streams are very unattractive for artists or performers: they have a show they want to do fifty or more times in different theatres. If their show gets live-streamed upon the internet, there is a good chance that a video of that will become public and there is less incentive for people to attend the live shows in a theatre. This is why some theatres highlight 'exclusive live-stream'.

With this reasoning Bres decided not to do paid live-streams and instead focus on free live-streams, with a donating option. While the inclusion of a donation button seems nice, it still didn't solve the issue for the artist or performer in compensating for the revenue gained from pre-Covid ticket sales. Donations were of little relief for performers effectively performing for free at Bres. This system was therefore only really effective in the first few months of the first Covid-19 lockdown as artists performed because there were yet no better alternatives available. Another theatre realised this and tried to mimic ticket sales online through 'V-tickets' which I will discuss at the end of this chapter. For now the conversation between myself and Kim and Sander turned towards the option Bres opted for: a donation button. This in itself had several issues at first. Kim: 'We first started using Tikkies<sup>56</sup> as a way to donate. However this allows a person to only pay once. So then you have to make another Tikkie link if that one person wants to donate for a second or third time. Eventually a friend of mine, a web designer, learned of this and called me stupid for not using a direct donation link. She helped me set this up and with this people could always directly donate to Bres'. A direct donation link allows for repeatable direct donations to the

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<sup>56</sup> A quick way to send money requests by a specific link. It essentially started out as a single App but has grown out to become a Dutch term for quick digital money links. See more at: <https://www.consumentenbond.nl/betaalrekening/tikkie>.

bank account of Bres. In contrast, 'Tikkies' are money requests that are unique in the sense that an individual can only fulfil the request once. The Bres theatre relies on a group of supporters or 'guests' of the theatre, as they would be more willing to give several donations to the theatre during these live-stream performances. These guests are regulars at Bres theatre who usually received invitations by Kim to digitally watch the shows through the live-stream. This can be linked again to Abidin's (2016) microcelebrity persona's in the sense that both microcelebrity persona's as well as the theatre rely on a niche group of people for support. Events and performances are therefore scaled to what this niche group likes. All of the live-stream performers at Bres were locally well-known and 'famous' to the supporters of the theatre. Each of these performers had in the past sold out in regular ticket sales at Bres theatre. It thus made sense for the theatre to have these specific performers at the theatre instead of new and unfamiliar performers.

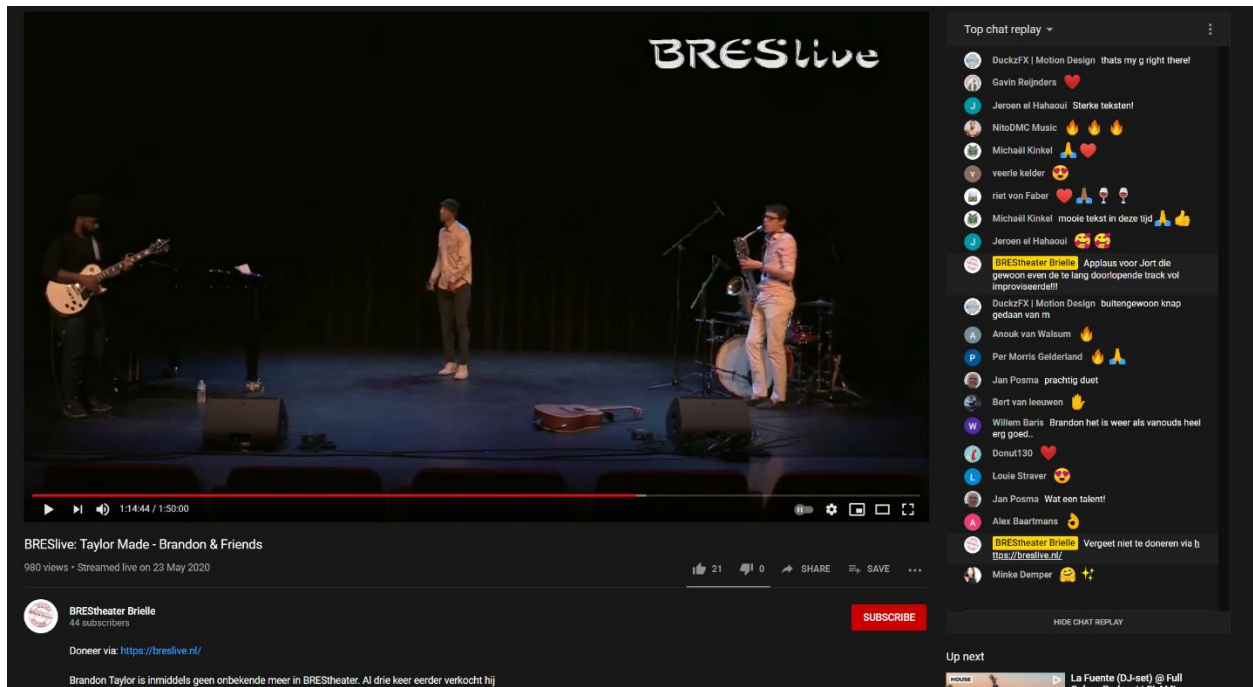
This donation button was also a tool for both the artists and the theatre to make a bit of revenue. Kim: 'With the artists we had a simple 50/50 rule when it came to donations during their performance: half would go to them and half would go to us'. However these small-scale donations were not enough to compensate for the regular ticket sale revenue that artists and theatre thrive on. Kim: 'What is important to realise however is that for all the artists these donations were really not enough for them to make a performance. Many came to us mostly on a voluntary basis, not to make a lot of money. In the early days of Covid regulations, there were few to no possibilities for artists, so many were happy just to perform and earn even a bit. This group for example, Taylor and friends, are composed of several musicians and are quite popular. In the past they did sold-out shows with us. These live-streams and donations do not scratch the barrel of the revenue from the ticket sales we had then. They really came to us because they wanted to perform and at that time didn't have a lot of options'.

Something I personally found interesting about the donations is that the donations could be accompanied by a small message addressed to the performers of the live-streamed show. Kim would compile these messages and later read these out to the artists after their performance. I think this is comparable to Twitch live-streamers. They already have established a system, independent from the website Twitch, where they allow viewers to donate to their live-stream. In return, they read out the message that a donator wrote with the donation. This is a simple but effective tool to motivate people to donate as they know the performer will read the message. On Twitch it can in channels with a lot of viewers also create a feeling of 'quick fame' as the message is being read out loud in front of a live audience. While the theatre is clearly not on the same 'level' of this donation incorporation into the live-stream as Twitch live-streamers are, I think it is interesting that someone completely unfamiliar with this

donation practise would read out these donation messages to the artists. Is it simply a way for Kim to portray nice messages of the audience to the artists or is it a way to reward those that invested into the live-stream?

Another topic that I think warrants discussion is the saleability of live-streams. As Kim has noted, some theatres, usually the larger theatres, make use of paid live-streams or 'exclusive live-streams'. With this they garner viewers and revenue that the *Bres* with free live-streams and donations cannot hope to match. With *Sportpraktijk Brielle*, we also saw how the saleability of live-streams was an issue: it was easier to sell a Pilates video package than a live-stream package. The instructor could record videos ahead of time, spending a single day to record ten classes. In contrast, live-streaming required the instructor to perform classes on set intervals, this would cost more time. While saleability of live-streams may seem too much of an economic take on live-streams, it does appear important for both the gym and theatre for the continuation of live-streams: if they can make more profit of regular services than live-streaming services, why would they bother doing live-streams? In this sense live-streaming also becomes an issue of power: bigger theatres and gyms can more easily make live-streams saleable to an already established larger audience. For *Bres* and *Sportpraktijk Brielle*, the reason for doing live-streams was to accommodate their already established audience. By using donations or in the case of the gym exclusive live-streams, they gathered a bit of revenue, although this was far too little compared to their standard business practises. For both the gym and the theatre, live-streaming was more about doing 'something for their audience' rather than a saleable product that could partially replace regular business practises.

## Performing in front of a digital live audience in a theatre



Picture 5: The performance of Brandon & Friends. One noticeable change is that the chat room is more active. Kim and Sander explain this as a younger audience more familiar with using a chat room.

The focus point of the live-streams at Bres were the performances of the artists and/or musicians on the stage. They were part of the new users of live-streaming and had to (slightly) adjust their performance. They were still performing on a physical stage of the theatre, albeit without any physical audience to perform to. Instead they usually performed in front of a digital audience which was watching through the live-stream. For the Bres theatre, they were the content or performance of the live-stream. While the theatre had to set up the live-stream with all its technicalities, the viewers came for the performers of the live-stream. Since these performers are so essential to Bres (they are primarily what the audience comes to the theatre for), I want to look at how these different artists adapted their performance to the 'new' medium of live-streaming. During the interview with Kim and Sander, they quickly highlighted three cases of performances that had live-stream performed at Bres.

Brit and Frans were the first live-stream performers at Bres (see picture 3). They were already willing to do Youtube videos with Bres, but wanted to also perform live. Kim: 'It was actually because of them that we started with the idea of BresLive, the live-streaming theatre sessions'. Brit was a professional singer and she brought along her step-father Frans who had singing as a hobby. During the live-stream, Brit



and Frans would constantly swap in singing a song. They were quite locally famous and thus the donations, which were shared 50/50 between the theatre and the performers, were very generous according to Kim. Although she did note that 'this might be because this was the first live-stream, people might have been excited about the first one'. According to Kim, Brit and Frans were both excited about performing towards of a digital audience but it was also hard sometimes. Kim: 'Singing in front of no physical audience made it easier for them, but it was also more awkward when they received no verbal applause'.

Another band or group of artists was Brandon & Friends (picture of this chapter). This group basically revolved around Brandon Tyler who was a 'local hero' according to Kim. He gathered young people, usually musicians, to perform in a theatre with. In the past he had done quite a few try-outs at Bres theatre. Try-outs are essentially practised performances to test how well they are received by an audience. The audience usually pays less for these try-outs than a standard performance. Brandon & Friends had less issues performing live towards no physical audience. Kim: 'They had each other to keep company on the stage. When you are with five or six people, it's less awkward'.

Lastly there was the band 'The Legends'.<sup>57</sup> They had sent Bres (Kim) a message to ask whether they could do a live-stream performance. They had already done a few live-streaming performances before and had heard of BresLive. They were nationally famous band usually performing in larger theatres. They were popular at Bres as well, often having sold out shows at the Bres theatre. The reason they chose Bres this time was, according to Kim, because at the time there were very little opportunities to do anything. Kim: 'Back then there was little to do for them so anything was nice to do. Now (when doing the interview in July 2020) there is little incentive for them to come to us'. As mentioned previously, they were actually one of the only bands to perform to a live physical audience. Some thirty volunteers of the theatre were allowed to watch, although, as we have seen above the focus of the performance was towards the digital audience.

When talking about how The Legends could perform, I questioned the usefulness of the chat room which they had enabled on their live-streams. Before we discussed the performers that had live-streamed, Kim wanted to highlight how basically only musicians could perform in the digital theatre. Kim: 'You really cannot do comedy in this (live-streaming) setup. Comedy requires direct feedback: a joke and laughter. You can't fill this gap with live-streaming, even with a chat room. Perhaps game live-

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<sup>57</sup> <https://thelegends.biz/about/>. Accessed on 22/11/2020

streamers<sup>58</sup> can do this, but I think laughter is a group activity: it's less fun laughing alone. Zoom could be an alternative to where you instantly get laughter, but that wouldn't work in our format'. Sander: 'Comedians are trained to tell a joke and wait for laughter. Now the situation is different, there is no (hearable) laughter, only reactions through a chat room'. Ironically enough shortly after this Kim and Sander did agree that another local theatre did have a 'nice live-stream where a comedian performed'. Sander: 'Artists don't really watch a chat room on the stage. They may look afterwards for some reactions but they don't watch it live. In this sense the chat room is not really relevant'.

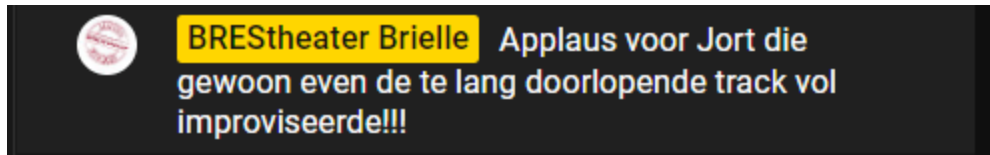
What is very fascinating is that Twitch live-streamers have been able to work with a format in which they use a chat room to interact with and watch reactions of the audience on whether or not they like what the live-streamer did. This is slightly helped in the fact that they do not have to stand on a physical stage to live-stream. Instead they are usually sitting down behind their computer playing a game. Because the main content of Twitch live-streamers is focused on playing a game, they can more easily look and interact with a chat room in contrast to performers on a stage who have a practised show to perform. To discover the role of a chat room, I wanted to further question what a chat room meant for the theatre and it's performers.

Kim had the role as moderator of the chat room during the live-streams. When you see typed message in the chat room posted by 'BresTheater Brielle' it was Kim who wrote these messages. According to Kim however, there was little to moderate as nearly all the messages were nice messages. She later explained that it would be different depending on the platform: 'On Facebook it's the opposite (of nice messages) where people who comment usually say something negative and the people who liked it simply press 'like' and that's it. But with a live-stream you actually have to watch the live-stream a bit and if you don't like it you simply put it (the live-stream) away'.

Sometimes moderating simply meant aiding the artists or compensating for mistakes. For example, I observed an issue of audio quality during a live-stream. One of the singers during a live performance thought that number had ended, but the audio continued. After a short silence, this singer continued singing. After the number, I noticed the moderator (Kim) in the chat room type in the chat box: 'an applause for Jort who improvised despite the music continuing!!!'.

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<sup>58</sup> Comedy is arguably not the main content of game live-streamers, it is playing a game and narrating what the player and live-streamer is doing in that game. However, here Kim is most likely referring to Youtube videos of gamers playing a game, which are usually ten minute videos and can be edited to have more 'comedy' in them.



*Picture 6: Another message by the moderator of Bres, stating: 'An applause for Jort (a singer on stage at the time) who managed to improvise despite the track (the song) continuing for too long.'*

I wanted to discuss the relevance of a chat room a bit more with Kim and Sander. I proposed the idea where a chat room would be visible on a screen for the artists to see, much like Twitch live-streamers can. Kim responded: 'Some other theatres do make use of showing the chatroom on a screen for artists to see. Then there is some sort of interaction between the audience and the performers. I think generally speaking for the artists we had it was a bit harder. They usually already have a set program in mind, there is little flexibility to do something different. I think it's different from an individual artist who live-streams: they can read a chat room and then perform a song that was requested'. These individual artists are apparently flexible. They can in terms of Pfaffenberger adjust to the medium of live-streaming and use the chat room as a way to interact with their audience. What I think is interesting here is that individual artists are not always familiar with the medium of live-streaming, but apparently will still adjust to perform on that specific medium. This kind of interactive performance with the audience was not possible, or perhaps better said not planned, at Bres. Instead, shows were focused on the traditional setup of a pre-planned show where interaction through a chat room was limited to the 'real life' equivalent of cheers and applause.

For their three set of performers at Bres, the chat room had been of mixed usefulness according to Kim and Sander. Kim: 'With Brit and Frans there wasn't a lot of chatting in the chat room'. Sander: 'I think many people have the live-stream on full screen and then you cannot even see the chat room'. Kim: 'With The Legends or Brandon&Friends the shows were quite scripted and there was little room to do something else. For Brit and Frans it was a more open show and would have been more useful'. Still Kim persists that: 'For the sake of interaction a chat room still wouldn't have been that helpful. Usually reactions were quite slow'. I observed this as well with the live-stream of Brit and Frans. The moderator, Kim, responded to someone in the chat room by asking them a question and never received an answer. Perhaps this has convinced her of the uselessness of a chat room for a theatre performance. It is also perhaps an unfair comparison I make between a theatre live-stream and game live-streams. Live-streamers on Twitch can interact with their audience through a chat room, but it does require a certain traction or back-and-forth between the live-streamer and the viewer on Twitch. If almost no one is

typing, there is little for the live-streamer to interact with. With the theatre performances the shows are usually 'scripted' in the sense that they have a set program which the artists follow during the show. Interacting with the audience for these artists during a performance is usually not really relevant even outside the chat room. The audience of a theatre performance is usually meant to only react, and usually only by clapping, at certain moments in the performance. Text in a chat room in this way can be seen as 'noise' that is not wished for during a performance. Still if part of the success of Twitch as a live-streaming platform is chat rooms, what does it mean for the future of theatre performances? Can there be a room for live-streaming theatre performances?

### Digital Theatre Performances: A return to the status quo?

One of my final topics of the interview with Kim and Sander was the future of live-streaming for the Bres theatre. The setting up of a live-stream had clearly not been easy. It had been made a lot easier by the hiring of a third party programmer who knew how to live-stream and had the equipment ready for it. Still, for the theatre the live-stream shows had lacked some form of connectivity which Kim and Sander argued was an essential part of a normal theatre. Kim: 'For theatre live-streaming was a replacement for real theatre. You can never really replace the feeling of sitting in a theatre with a live-stream. You really go to the theatre to experience it and you miss that with a live-stream. On the flip side we do now really know how to set up a live-stream and we could quickly set it up again if necessary'.

Sander added to this: 'I don't think people after Corona will sit on their couch watching some singer on Youtube perform here in this theatre. Eventually people will stop being amazed by it: after three or so times of seeing it (the live-streams) people will be done with it'. Kim adds: 'Besides that there are quite a few other things to watch on Youtube so I wouldn't quickly watch something of the theatre on Youtube'. Not being appealing on Youtube may be more related to the website than to live-streaming as a medium: Youtube has an enormous amount of videos and thus competition for the theatre. Live-streaming for the theatre was a smart solution to this competition: regular visitors of the theatre would receive a digital invite to watch the live-stream. This for the audience is far more akin to the 'special feeling of a theatre' than the posting of videos on a Youtube channel could provide. There are also some issues with this 'form of connectivity' that according to Kim and Sander can only be found in the theatre. For starters, artists are well known with different forms of media. DVD's for example portray recorded performances of artists. In this sense fans of artists can enjoy the performance despite not being there or the show being live.

What was perhaps more at stake was the viability of the theatre itself: if live-streaming could be very successful, what place would the theatre have? I discussed a notion of a hybrid form of theatre where regular theatre would be mixed with live-streaming. Kim: 'Regardless whether or not it would work I wouldn't want it. You don't want theatre performances... they are very different from a live-stream or TV, you actually don't want people to look at a screen'. Sander continued this argument: 'Artists also don't want this I think. Their products will be on the internet, the same product they want to perform fifty more times in other theatres. Then people start thinking about paying twenty-five euro for a ticket.. I might as well watch the free online video'.

To highlight her point, Kim made a comparison with a Youtube game live-streamer: 'If that Youtuber is playing a game and his audio cuts out or the audio isn't that great.. people don't come for that. People watch him to see what games he plays, what jokes he makes and how crazy he acts. With us (the theatre) they come to listen to the music. If the music quality is bad.. you aren't going to listen to a music video where the music quality is bad. For us good audio and screen quality are far more important than a chat box. What is true is that.. if we have an audio issue, the chat box is the first place we will hear about it'.

What Kim seemed to imply was the fact that live-streaming had to be part of core business to garner an audience. Because the theatre had an audience wanting to see physical performances in the theatre, there was serious doubts about the usefulness of live-streaming for the theatre. People surely liked it in Covid times, but would they do so when regulations softened? Kim also seemed to imply an inherent quality of theatre: a special feeling of visiting a theatre that cannot be replaced digitally. This sentiment is replicated at the gym and arguably even on Twitch. In the gym, live-streaming is explained by the instructors as a temporary solution that can never replace that 'personal feeling' that exercising together in a gym together with others apparently creates. In part I believe this 'special feeling' exists: point: going into a physical space with other people has a feeling that initially a digital space cannot provide. At the same time what might be at stake here is the ambiance of spaces that can draw people of similar interests in. When looking at digital communities, people can feel incredibly connected to a community. On Twitch the buzzing activity of a chat room sees long-time users greeting each other on a daily basis and chatting with each other. That feeling of closeness or 'being together' in a community is perhaps not as bounded to the physical realm as Kim might think. Still, it is important for the theatre to believe that this is what makes theatre unique. If this collaboration between performers and theatres

where they do not allow filming of performers would stop, would this part of the cultural industry survive? Or would people as Sander predicts 'just watch a free online video or live-stream'?

As my final question I wanted to discuss if they had short-term plans for the continuation of live-streams. Kim: 'We are now working on starting our regular program again. But you never know what the future might bring. Possible we will have a second (Covid) wave and you will again have strong (government) regulations which we fall under. In that case we would likely return to live-streaming as an method'.

This interview took place in July of 2020. Back then, government regulations had slowly loosened and theatres and regular shows were allowed once again. They would have to follow new guidelines such as a 1,5 meter gap between visitors of the theatre. This practically meant that the theatre could sell less tickets as there were less available seats available in the theatre. In a press conference on the third of November however, prime minister Mark Rutte announced that theatres would have to temporarily shut down all physical performances for a period of two weeks. The Bres has in a Corona update on their website<sup>59</sup> told their guests that shows in the coming two weeks are cancelled. There is yet no mention of live-streaming as replacement. Hopefully for the Bres theatre the lock-down measures against theatre performances only last the promised two weeks. If they do not, the theatre will yet again have to improvise on performances and might yet again look to live-streaming as the temporary solution. While Bres theatre seems to maintain the thirty theatre visitors in-person rule, a theatre in Arnhem decided to introduce a 'V-ticket'.<sup>60</sup> These 'V-tickets', the V most likely standing for 'Virtual', make use of live-streaming to reach their audience. With "a few camera's and a live-stream" the V-ticket brings a purely digital audience 'to' the theatre. The creator of the V-ticket, Roel Coppelmans director of the Post theatre of Arnhem, notes that several 'rules' need to be applied for the V-ticket to become successful. First off, the amount of V-tickets sold should be equal to the amount of physical seats in the theatre. This is perhaps a bit strange as a 'digital theatre' usually has far more seats available. But Coppelmans notes that 'selling a thousand tickets would be bad for the theatre as well as local restaurants, those would be empty and we don't want that'. A second 'rule' Coppelmans argues is to make sure the artist or performer makes equally as much from a V-ticket as he/she would from a regular ticket. This is probably the hardest rule as Coppelmans notes that 'In normal times our theatre can host 300 people. With the Covid rules allowing thirty people in the theatre, we could then sell 270 V-tickets'. In this way,

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<sup>59</sup> <https://www.brestheater.nl/nieuws/update-coronamaatregelen.html>. Accessed on 23/11/2020

<sup>60</sup> <https://www.gelderlander.nl/arnhem/theaterbaas-roel-coppelmans-wordt-platgebeld-over-v-tickets-ik-hang-elke-dag-uren-aan-de-lijn-br~a01b4aff>. Accessed on 23/11/2020

V-tickets attempt to bridge the gap that Covid rules leave. What is interesting here is that the V-tickets try to fill up the physical seats in the theatres, despite the fact that the buyers of these V-tickets cannot attend the theatre in person. Instead they will be allocated to a live-stream. The most likely reason for this is retaining a supply and demand: technically a live-stream (depending on the capabilities of the streaming service) could host thousands of viewers at once, but Coppelmans explicitly tries to limit this number. Coppelmans argues this is for the sake of keeping the theatre and local restaurants in business. While the V-tickets are not yet reaching sold-out levels, Coppelmans concludes that, in addition to the thirty standard physical ticket seats, that: 'selling twenty five V-tickets is still nearly a doubling of the total amount of tickets sold'. This V-ticket is the kind of hybrid system I was implying towards Bres. It is a hybrid because it accepts live-streaming as a method for theatre but moulds it to where it more easily fits theatre. The specific limitation on sold V-tickets, which is equal to the total physical seats in a theatre, show how this could become a future system for theatres to work with. The theatres can keep supplying regular theatre seats while using live-streaming to fill theatres seats that have become unavailable to sell with Covid regulations. While Kim and Sander might have argued that the theatre needs to be removed from the screen, that it is about the experience of physically going to a theatre, V-tickets may give a change to some theatres. By limiting the amount of V-tickets sold, visitors to the theatre might still experience the sense of 'feeling of the going to the theatre' that Kim hints at. V-tickets may be what Coppelmans argues is the 'unstoppable trend' for theatres to provide both offline and online theatre performances where live-streaming becomes an integral part of the hybrid system.

## Conclusion: Live-streaming as an interpretative medium

Thus far I have attempted to highlight the different affordances of different live-streamers. Looking back at what I call 'new users' with 'experienced users', I want compare the different affordances between the live-streams mentioned in the previous chapters. To analyze these different affordances of live-streaming I first want to revisit my research question for this thesis. At the start of the thesis I proposed the following research question:

***How do experienced users and new users of live-streaming in times of a pandemic adjust their performance to this specific medium and at the same time challenge the affordance of what live-streaming as a profession was?***

Alongside the main research question, I had several sub-questions<sup>61</sup> I attempted to detail in chapters three to five. In this concluding chapter I want to look at comparisons and differences between these various live-streaming actors.

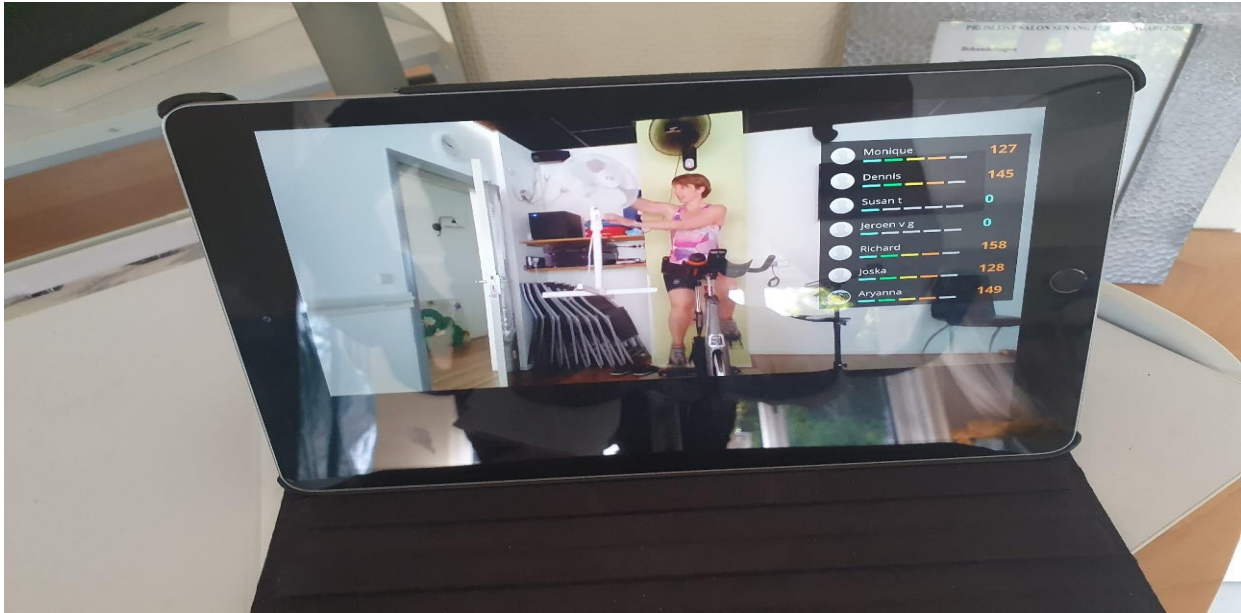
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<sup>61</sup> 1. *What are the affordances of life-streaming as a profession for experienced users who live-stream during a pandemic?*  
2. *How do users new to live-streaming adjust their performance to the live-streaming medium to suit their particular professions or needs?*  
3. *How do the new users of live-streaming challenge the affordances of what live-streaming as a profession is?*



## Digital literacy: a visual comparison

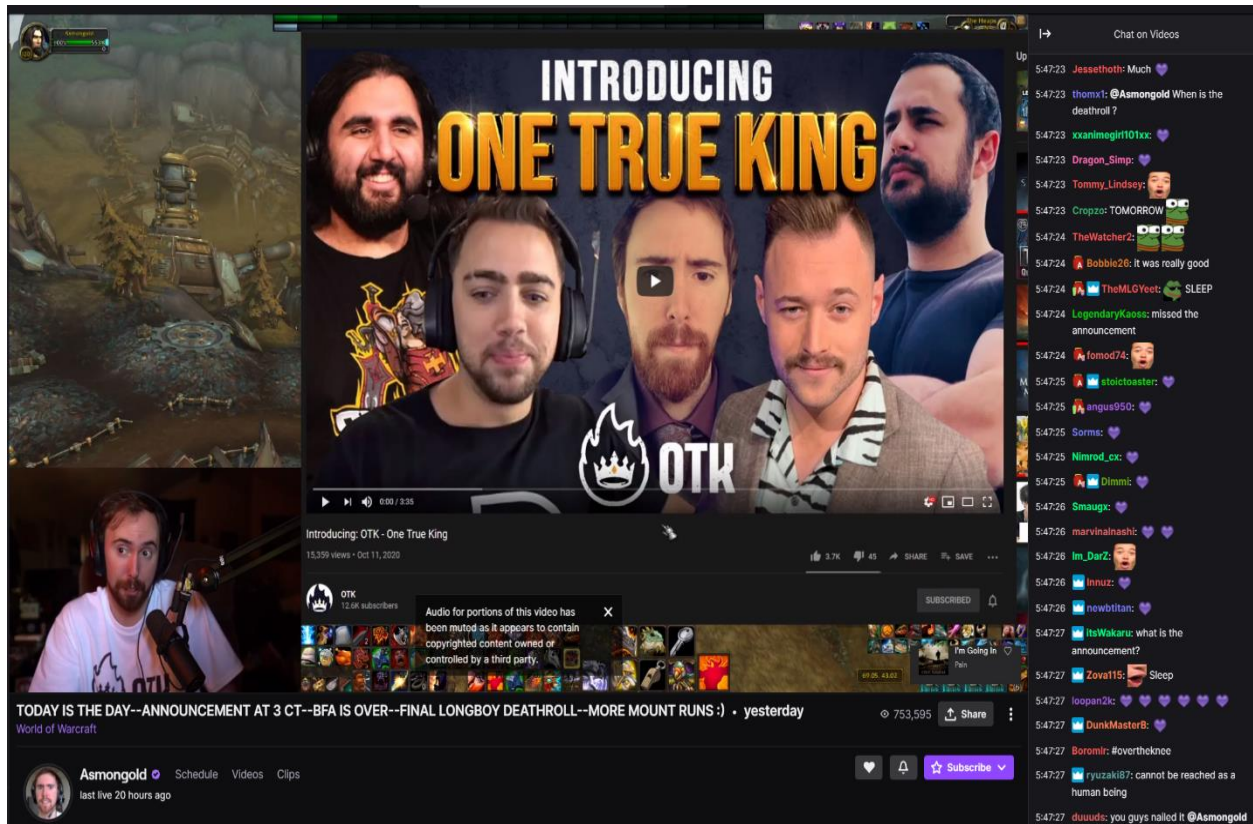
To answer the research question I want to start by visually comparing the three different live-streams discussed. In each chapter I included a picture of what the live-stream looked like. In their presentation, these live-streams each had something unique to them.



Picture 1: Sportpraktijk Brielle Hit-cycling live-stream with Aryanna.



Picture 2: A Bres Theatre live-stream of performers Britt and Frans.



Picture 3: A Twitch live-stream of Asmongold.

What each live-stream in the three cases had in common was the fact that they required a form of digital literacy. Here I want to look back at boyd's (2014) argument that digital literacy is a combination of different forms of literacy. These different forms of digital literacy are more numerous in certain cases and less numerous in others. Here I want to discuss digital literacy required to be able to participate or watch the live-streams.

In this first picture of the gym live-stream, the live-stream consisted of a few forms of literacies. These were visible through participants of the live-stream who failed to understand certain mechanics of the live-stream. Sportpraktijk Brielle offered hit-cycling live-streams. These classes were initially free but soon became monetized classes. The hit-cycling live-stream demanded certain actions from participants of the live-stream to be able to follow the live-stream and the class. Participants first had to connect to the live-stream. This meant connecting a tablet, mobile phone or computer to the live-stream.

Connecting in this sense meant logging in on a personal SelfLoops account. Through the SelfLoops account, participants would be able to connect to the live-stream, which SelfLoops hosted on Youtube. Logging into SelfLoops was also relevant for the second important factor of the Sportpraktijk Brielle live-

streams: heartbeat sensors. Participants were required to wear a heartbeat sensor through which their SelfLoops account would be displayed on the live-stream. These two factors often led to many participants being confused: the Sportpraktijk could not directly share them a simple link to the live-stream, they had to follow the procedures to reach the live-stream and participate.

The second picture details the theatre live-stream. The theatre, out of the other two cases, required the least numerous digital literacy for viewers. Instead of having to use an external party like SelfLoops, viewers would directly receive a link by the organisers of the theatre live-streams. Viewers would be brought to the familiar stage of the theatre, albeit without any rituals surrounding a theatre visit, such as small talk between guests or drinks before and after a show. In contrast to the gym, the theatre live-streams made use of a chat room. This chat room was live during a live-stream performance and was always next to the screen portraying the performance. Here digital literacy became an issue again as only those with a Youtube account would be able to chat. In one performance, the chat room was a lot more active and responsive to the performers of that show. This could be a case of a different audience having a different digital literacy. On the other hand, it could simply be a case where the more active chat room consisted of more 'talkative' or 'more willing to chat' viewers and entirely unrelated to literacy. In the interview with Kim and Sander, they both rationalized the 'more talkative chat' on the apparent younger audience watching that specific performance compared to the other shows at Bres. Future research could look at whether there is a link between a 'more talkative chat room' and the age of viewers. Whether this supposed link would then be a case of more or less digital literacies is debatable: not participating in a chat room can also be a matter of simply wanting to watch the show without commenting or interacting with the performers or the audience. Another aspect of the theatre live-streams was the donation link. Kim, the marketer and moderator of the chat room, would every now and then during every performance post links to donate to the theatre. Initially these donations were money requests in the form of Tikkies. This required users to use their bank application on their phone to be able to make a money transfer. The theatre later changed this to direct donations, allowing viewers to donate an infinite amount of times through the same link.

In the last picture we have the Twitch live-streamer Asmongold. Twitch live-streams, although already varied depending on the live-streamer, require numerous digital literacies. To focus on the case and picture, several different elements need to be understood by a viewer. To start, viewers need an understanding of the game the live-streamer is playing. Being able to understand what the game is

allows viewers to interpretate whether a live-streamer is doing well or not. However this knowledge is sometimes redundant when a live-streamer decides to do non-game activities such as watching videos. Here the audience is required to understand the subject of the video in question to react to it. This comes down to the final point, namely the chat room. Chat rooms on Twitch are dominated by visual stimuli that give the impression of mass 'single turn messages' that Recktenwald (2017) speaks of. They require a viewer to know the context of these single turn messages or emotes. While it could be said that a chat room is optional to the viewing experience, the methods in which viewer communities are formed often revolves around these chat rooms.

### The performance of live-streams

So far in this chapter I have discussed the different live-streams from the point of view of viewers or participants of the live-streams. I now want to turn to the performance side of the live-streamers.

In the gym live-streams, Aryanna had to learn how to make live-streaming work for her. Through a collaboration with different parties she was able to make a Sportpraktijk live-stream in the form of hit-cycling live-streams. However none of these different parties were experienced in establishing a live-stream, including the live-stream service provider SelfLoops. This meant that every single live-stream would require improvements and improvisations on her part. On the ground, or on the stage, Aryanna was the only person who could and would fix issues that came up during the live-stream. Because of this, performance not only meant giving a hit-cycling class but also included dealing with all the possible problems the live-stream experienced. This often meant both technical and social skills as both technical details such as sound had to be fixed on the fly and participants who couldn't connect to the live-stream also needed to be helped. This amounted to a labor intensive performance and a constant swapping between teaching the class, being a technician and being the helpdesk of the live-stream.

With the theatre live-streams three people were directly involved in its production. Kim would act as the marketing, providing links to viewers, promoting the live-stream and trying to arrange shows with potential performers. Sander would perform his role of sound technician, a role he already had before live-streams had started. Of major importance was a technician named Jeroen who had both the equipment and technical skills necessary to set up a live-stream. In contrast to Aryanna from Sportpraktijk Brielle, none of the three staff managing the theatre live-stream had to perform to an audience. In a way Kim interacted with and performed towards the audience, but this was usually

remotely through being a moderator in the chat room. The main performance of the show thus rested on the artists on the stage who despite not having a physical audience present could usually perform practiced shows/performances.

Live-streamers on Twitch rely on several components for their live-stream. Their performance lies in the playing of a game along with interacting with the audience through a chat room. To gradually gain a loyal following, many live-streamers become 'variety streamers' in the sense that they will not play a single game but will instead play several games. By doing this live-streamers on Twitch try to make themselves the core feature of the show, rather than any specific game being played. As I have argued this is similar to Abidin's (2016) notion of microcelebrity personas which rely on a combination of professional selfies and backstage performances. Likewise live-streamers establish themselves as 'authentic (casual) gamers' while also becoming professional live-streamers who can form contracts with retailers and other corporations. To create this performance, live-streamers rely on 'content creation' or the work of many other parties for the success of their live-stream. Malaby (2012) also noted this by stating that the notion of individual content creation deemphasizes social capital. In this sense live-streamers on Twitch rely on many different parties for the success of their live-stream.

### Live-streaming as a sociotechnical system

At the start of this thesis I introduced Pfaffenberger (1992) idea of sociotechnical system. A sociotechnical system implies that a technology or system is given meaning through social interaction (Pfaffenberger 1992: 503). In this sense live-streaming is given meaning through the different ways in which it is used. This is perhaps best reflected through game developers interest in advertising or sponsoring live-streamers on Twitch. It is not the technology of live-streaming that excites game developers but rather the social role live-streaming has become in gaming that makes it a great marketing tool. In the same sense live-streamers make use of other affordances: badges for subscribers on Twitch, personal heartbeats for hit-cycling and donating messages with a theatre performance. Live-streaming can in this way be seen as a *technological adjustment* to other forms of media technologies, as it tries to be more interactive which seems to be in demand in a Covid-19 lockdown situation.

At the same time I want to be critical in not overstating the role of live-streaming for the 'new users' that I have observed in this study. Despite all it's 'apparent' social function of being 'the best available' medium in Covid-19 times to perform, both the gym and theatre have decided that they will no longer

use live-streaming in the future unless no other option was available. Kim and Sander were convinced that live-streaming in theatres was a nice fad: fun for a few times but not meant to stay. Aryanna noted that there was little enthusiasm amongst both other instructors as well as clients of the gym to participate in gym live-streams. Besides this, live-streaming proved to be workload heavy, especially if done alone. While Kim and Sander had an easier time than Aryanna thanks to the technician Jeroen, they would probably not have been able to make use of live-streaming had Jeroen not been there. Despite the efforts of integrating different performances into live-streaming, only Twitch live-streamers seemed steadfast in their belief that live-streaming was the medium to use. Yet where the gym and the theatre had a few months to establish a live-stream, Twitch live-streams date back years. Many of the 'high-ranking' or 'popular' Twitch live-streamers have been live-streaming for years, constantly improving upon their live-streams. The future of live-streaming is therefore unclear for new users. Unlike the established users on Twitch, new users have yet to find marketable ways in which live-streaming can be a beneficial medium for their respective professions. At the same time it can be questioned if marketing was the true goal of the 'new users' live-streams. It may instead have been an appetizer to their clients, a way to continue regular professions in a different, but Covid-19 compatible, way. In this sense, Sportpraktijk Brielle and Bres theatre were successful in keeping their core audience engaged with their businesses despite the lack of their regular business practices, such as a theatre visit and an exercise at the gym. Potential future research could be dedicated to more in-depth description of the different affordances of live-streaming as these 'new actors' can change the landscape of live-streaming as a medium.



## Suggestions for future research

With my research I have tried to discuss three separate cases of live-streaming. In terms of application of methods I was sometimes limited by either access or circumstances of Covid-19. In the Twitch case for example, I had planned to have several interviews with live-streamers on the website. However many either ignored my messages or replied they were too busy to make time for me. For future research more in-depth research on the perspective of Twitch live-streamers can aid in further describing how live-streaming on Twitch is done.

In the theatre case I had also planned on gaining the perspectives of the theatre performers. With my current interviews only consisting of the organizers and technical staff of the theatre. Performing on a physical stage in front of a non-visible digital crowd will most likely have had an impact on the performance of these theatre performers.

What has become clear is that there are a plethora of ways to live-stream. New ways of live-streaming are constantly being invented, either by those wishing to temporarily convert their content to live-streaming or those who wish to establish a 'new' way to live-stream and reach a niche audience.

One new interesting 'new' way to live-stream and an interesting avenue of future research could be V-tubers. V-tubers are generally speaking those who use an avatar as a persona to make videos or to live-stream with. These avatars are usually in the form of Japanese animated (commonly referred to as *anime*) bodies that have a human behind the screens controlling them. V-tubers make videos or live-stream through the body of their avatar. What is fascinating about this is that, to compare to Twitch live-streamers, a live-stream of a V-tuber will have this avatar or animated body 'be' the live-streamer. These live-streams or YouTube channels will revolve around what this 'fictional' persona does. The term fictional is somewhat complex here, since while the animated character is not a real person, the person who voices and controls the persona/avatar is. They are technically the live-streamer/video maker, but will perform through their persona or avatar. Through the use of some form of facial scanning apparatus, V-tubers can 'embody' (in the literal sense of the word) the body of an animated character. Due to the now readily available facial scanning technology (strongly used in games through Motion Capture technology<sup>62</sup>), V-tubers can make the animated character behave as they do. If the person controlling the character smiles, or frowns, the animated character will do so as well.

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<sup>62</sup> Either a facial scanning or full body scanning technique used in video games to accurately bring as many facial features and body movement of a person in the digital world. Often there are specific 'motions capture actors' who will play a game scene in real life, which is captured by Motion Capture camera's and equipment to transform



*A live-streamer on Twitch known as Codemiko. The entire screen of the live-stream is focused on the digital avatar as well as a digital background created for the live-stream.*

V-tubers have become increasingly popular, first in Japan and now more internationally as well. The use of digital bodies has not been exclusive to V-tubers either. In the fashion world, several Instagram models are digital models created by designers and sometimes performed by “real-life” models.<sup>63</sup> For me this raises interesting questions about technology as well as live-streaming in general. My research has detailed a multitude of live-streamers, but each made use of a physical human body to present the live-stream. V-tubers control a digital body of an animated character. V-tubers can problematize the notion that live-streams are about human influencers. Through digital bodies, V-tubers literally and figuratively perform a persona in front of a live audience. What is especially interesting in regards to my research is the new affordances this type of live-streaming brings. From what I have gathered, the digital bodies require both technical as well as social skills to perform as an avatar for the video maker/ live-streamer. On the technical side, the digital body has to be coded as to fluently follow the movements of the person controlling them. This process is not flawless and often requires the performer, in this case

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this data and put it in the video game. An example of the recent accuracy of Motion Capture in a videogame can be seen in the game The Last of Us 2: [https://youtu.be/Re\\_W\\_QxTL2s](https://youtu.be/Re_W_QxTL2s).

<sup>63</sup> An example of this is the digital model Shudu. See more at: <https://www.harpersbazaar.com.sg/fashion/top-3-digital-instagram-model-to-follow/>. Accessed on 22/01/2020.



the live-streamer controlling the digital body, to perform differently. In the case of CodeMiko, this live-streamer seems to put more effort into the performance of the digital character. This is not only because of the fact that she is 'playing' or 'performing' the digital body as a separate character, but also because this digital body requires a different performance. While major game developers have access to the most advanced Motion Capture technology, V-tubers have to make due with cheaper and more readily available technology. In concrete terms of performance this means that the digital bodies of V-tubers (specifically their faces) are often not subtle enough in portraying emotions. To compensate for this, V-tubers have to perform differently, often holding smiles, laughs or surprised faces far longer than a human normally would. While most of the techniques and affordances of this type of live-streaming still allude my understanding, I think this different way of live-streaming challenges some established affordances of live-streaming. In this sense, V-tubers can be an interesting avenue for potential future research looking at different affordances and performances of live-streaming as a medium.

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