



VIDEO GAMES AS A SPECTATOR SPORT

How Electronic Sports Transforms Spectatorship

Joerik van Ditmarsch

3268969

Master thesis

j.l.vanditmarsch@students.uu.nl

Date
Tutor
Second reader
Study

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dr. René Glas
dr. Michiel de Lange
MA New Media & Digital Culture
Utrecht University

Abstract

The question discussed in this thesis is: *What does eSports tell us about how to think of spectatorship when combined with media enabling participation?* First, eSports and spectatorship are theorised. Second, the history of the origins of eSports spectatorship up to the present day is discussed, revealing how practices of the participatory culture surrounding eSports have been of major influence in shaping eSports and showing how various forms of game systems, video games and technologies, such as networked gaming and video game live streaming, are of influence on spectatorship. ESports spectatorship is so intertwined with media that eSports and media cannot be studied separately. Especially the aspect of participation, which is enabled by media, is of influence on transforming spectatorship. Third, a formal analysis is conducted of two platforms that provide eSports to spectators, showing how technological qualities and the design of media influence eSports spectatorship and enable or restrict participation. ESports spectatorship entails aspects of an active audience and fan practices, but also includes active participation, and often blurs boundaries between being a spectator or a fan on one hand, and being a player, and sometimes a producer of eSports content, on the other.

Key words: spectatorship, eSports, eSports spectatorship, spectator, games, player, competitive video gaming, cyber sports, and media.

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Introduction

Electronic sports (eSports) is becoming an increasingly popular part of digital game culture. An example of the exponential growth of eSports, which involves competitive video game playing, is the fact that nearly seven hundred big eSports tournaments were held in 2012 as opposed to only ten in 2000. These big tournaments also include events with up to multiple million dollar price pools and hundreds of thousands concurrent spectators (Popper 2013). While the number of eSports players is growing fast, the number of spectators of electronic sports grows even faster, resulting in eSports becoming a new spectator sport. The topic of this thesis is this relatively new phenomenon of eSports spectatorship, which can be described as the act of watching eSports.

‘Traditional’ spectatorship, like spectatorship of football¹, theatrical performances and movies, definitely has much in common with spectatorship of eSports. Yet, the latter has unique aspects, such as a virtual camera that can be controlled by an eSports spectator which brings a new dimension to spectatorship. This thesis investigates these unique aspects of eSports spectatorship, and how eSports spectatorship creates new spectatorship practices. Here, we focus on participation possibilities for the eSports spectator, because participation is considered a unique feature of eSports spectatorship. The following definition of participation of media theorist Marko Tobias Schäfer (2011) is used: “It considers the transformation of former audiences into active participants and agents of cultural production on the Internet.” (10) The aim of this thesis is to show how eSports makes us rethink what spectatorship can be when combined with media that enables participation. The research question therefore is as follows:

What does eSports tell us about how to think of spectatorship when combined with media enabling participation?

The answer to this question will reveal how technological qualities and the design of media concerned with eSports spectatorship in combination with participatory media practices of spectators, change our current view on spectatorship.

This research is relevant because while some academic work has been dedicated to eSports in general (e.g. Taylor 2012), professional gamers (e.g. Kane 2008) and eSports as a form of sport (e.g. Wagner 2006; Hutchins 2008), eSports spectatorship has barely received any attention at all. Research on eSports spectatorship is also important because eSports spectatorship is not something trivial: it is a unique sort of spectatorship when compared to other forms of spectatorship, and it creates new kinds of media practices. Thus, eSports spectatorship can be considered as an important subject that requires academic attention.

Societal relevance lies in the fact that eSports is becoming an increasingly popular part of digital game culture, and additional research of the phenomena of eSports and spectatorship can help to empower the users, spectators, and players concerned with these phenomena to influence how the eSports scene gets shaped. For example, a greater understanding of the complexity of both eSports and spectatorship can help show how eSports is realised not only by its users, spectators, and players, but also by big tournament hosts, commercial platforms, and video game companies, which are of significant influence in either enabling or restricting the participation possibilities of the spectator.

In order to understand the complexity of eSports spectatorship, chapter 1 first gives a theoretical framework, explaining what eSports and spectatorship exactly are. In order to define eSports, theories on traditional sports and eSports (Tiedemann 2004; Wagner 2006) are used. Media theorist Brett Hutchins’ (2008) view on eSports is of importance in this matter. His argument that media and eSports cannot be regarded

¹ Football is also known as soccer in some countries.

separately from each other will be extended in this thesis to argue that eSports spectatorship and media are integrated instead of interrelated. Next, spectatorship is theorised by looking at the active audience theory, spectator and fan practices (Barkhuus 2008; Crawford 2004), and participation of the spectator (Ludvigsen and Veerasawmy 2010). Second, the methodological framework is given, which includes playing and spectating as methods to get a grip on eSports and spectatorship, and a formal analysis to unfold how technological qualities and the design of eSports platforms are of influence on eSports spectatorship.

Chapter 2 shows the history of eSports spectatorship. The goal of this chapter is to show where eSports spectatorship derives from and how eSports spectatorship and practices surrounding it changed and developed over time. In this chapter, the very first forms of eSports spectatorship up to the present day are discussed. Of specific importance for this history is the work on eSports by sociologist T.L. Taylor (2012). Taylor maps the field of eSports by doing ethnographic field research in North America, Europe, and Asia. Her work is used to help identify the past and present forms of eSports spectatorship. In this chapter, aspects deemed significant to eSports are selected and connected to eSports spectatorship, aspects like video games, game systems, demo files, machinima (following Lowood 2005a; 2005b), virtual camera, fan influences, and the recent commercialisation and professionalisation of eSports. An example of fan influences that is discussed, is the role of user-made software for eSports spectatorship. Another aspect investigated is video game live streaming, an increasingly popular method to spectate eSports and share gameplay. Work by Kaytoue et al. (2012) is used here to help make sense of this phenomenon of streaming. They monitored the popular streaming platform *Twitch* and provide useful insights – such as why some streams are much more popular than others. Remediation, a theory offered by digital media theorist Jay David Bolter and new media scholar Richard Grusin (2000), is also used in this chapter to show how eSports borrows

formal aspects of sports' shows broadcasted on traditional television.² Their theory is based on ideas of media theorist Marshall McLuhan (1964).

In chapter 3, the formal analysis is conducted, revealing how technological qualities and the design of eSports platforms can influence eSports spectatorship. This analysis specifically focuses on the enabling or restricting of participatory aspects. In the second part of this chapter, the conducted analysis is combined with the insights of chapter 2 to show the key aspects of eSports spectatorship, and to show what this teaches us about spectatorship in general. The idea of participatory culture by media scholar Henry Jenkins (1992) is introduced in this chapter and related to the culture surrounding eSports. Also, the argument of eSports spectators often being a 'player/spectator hybrid' is given in this part.

² With 'traditional television', this thesis refers to the traditional broadcast model of television where "The contents are defined by the broadcasters and the main *de-facto* interaction is the so-called *zapping*." (Montanari et al. 2007).

1 – Framework

1.1 – ESports

ESports is a term that refers to competitive video game playing. It is similar to terms like professional gaming, competitive gaming, and cybersport. Its origins can be traced back to the 1970's (Taylor 2012, 3). The term itself, however, dates back to the late 1990's (Wagner 2006). It is rapidly growing in popularity, not only in terms of players participating in eSports matches, but also in terms of spectators of eSports. Large events can have thousands of spectators on-site and hundreds of thousands of spectators following the action online. Players can compete with each other around the world, by means of the Internet and other preceding network technologies.

The term sports within eSports refers to it being some form of sport. Naturally, research on eSports is often about its connection to sports. Digital media theorist Michael G. Wagner (2006) looks at this connection. Wagner believes that “[...] the activities we will accept as sport disciplines will change as our value system change [...]” (438). Wagner identifies such a change in our value system with eSports. Whereas physical sports was the standard in the Industrial Age, the transformation to our contemporary information and communication society compels Wagner to state that eSports, being based on information and communication technologies, has become a new discipline of sports. In this discipline, it is less about physical fitness and more about being competent with the mentioned technologies which have become culturally important (438-439).

Building on traditional sports theory by sports scientist Claus Tiedemann (2004), Wagner (2006) defines eSports as “[...] an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies.” (439) What is missing in this definition is the aspect of competing with others – which seems odd, as it is a key aspect of eSports and as it can be found in

Wagner's definition of sports (438). The definition of eSports used for this thesis therefore is the following slightly altered definition:

ESports is an area of sport activities in which people develop, train and compare mental or physical abilities using information and communication technologies through video games.

The words *through video games* have been added to the definition because eSports is performed by means of video games.

Even though it can be argued that eSports is a form of sports, there certainly are unique aspects to eSports. Hutchins (2008), who looks at eSports from a sociological perspective, elaborates on what makes eSports unique compared to traditional sports. His case is the World Cyber Games (WCG), one of the biggest eSports events aiming to be the world championships of eSports. Hutchins looks at the players competing in the WCG and argues “[...] no one existing category of social perception – sport, media or computer gaming – can account adequately for the totality of their activities.” (861) Hutchins argues this is the case because “Cyber-athletic competition cannot be thought of in terms of media or sport or computer gaming. The institutional and material boundaries separating them have imploded, leading to the creation of a new social form, e-sport.” (865) Instead of using one such existing category of social perception to describe eSports, Hutchins thus argues that eSports is a fusion of the previous distinct categories sport, media, and computer gaming.

Hutchins extends his argument by stating: “It is necessary to think in terms of sport *as* media (material integration) instead of traditional sport *and* media (structural interrelation).” (862) This is the case because: “e-Sport, by contrast, is structured by computer code and a digital interface: put simply, a game of football remains possible with or without a media platform present.” (858) However, for eSports such a media platform is necessary. Consequently, media is fundamental in providing the digital space wherein eSports competition takes place. Note that even

though the origin of eSports differs from that of sports, it still is a form of sports: from a historical and organisational perspective there is continuity in how eSports is practiced as a sport. The major discontinuity lies in that eSports, unlike traditional sports, is integrated with media instead of interrelated, or in other words: “e-Sport is born in and of media, which alters the parameters of competition in terms of how it is conducted [...]” (857). This unique connection identified by Hutchins between eSports and media is extended to eSports spectatorship in chapter 3.

1.2 – Spectatorship

Spectatorship can be described as the act of observing an event without participating in the event. Spectatorship is not something new: it has been part of human practices for a long time, just think about sports in ancient times, which also allowed for spectators to be present to watch the activities. Spectatorship is a common practice on all sorts of occasions, some examples are: watching sports, a movie, or a theatrical performance. Something spectated can be non-mediated, like when one is watching a football match in a stadium, or it can be mediated – by the television, for example.

Spectatorship is a topic of interest to multiple fields of study, like sociology, film studies, and sports studies. Topics can range from motivational factors of why one spectates (e.g. McDonald, Milne and Hong 2002, who write about sports spectatorship) to how a spectator interprets a media text (e.g. Hall 1980). Concerning the latter topic, a general shift within the academic world can be recognised from viewing audiences as passive, easy to influence and homogeneous consumers of media content, to viewing audiences as an active audience: viewers are active and make sense of a media text in their own way (e.g. Ludvigsen and Veerasawmy 2010). Audiences are thus active interpreters of media content.

Yet, spectatorship is about more than the act of watching. Football spectators, for example, can be found talking about an upcoming event

with others, reading related content, and so on. In this way, they actively influence the spectator experience (Crawford 2004). This thesis shows that the same counts for eSports spectatorship, and it will extend on the notion of spectatorship by showing how the mediation of eSports adds new layers to spectatorship to understand. Besides spectators being active in interpreting a media text and influencing their spectator experience by side activities, they can also participate when spectating an event. Examples of events adding spectator participation layers are: song contest television shows where the spectators can vote for who they want to advance to the next round, and a concert where the audience is engaged to cheer by screens giving feedback of how loud the cheer is (Barkhuus 2008). Interactive media theorists Martin Ludvigsen and Rune Veerasawmy (2010), who present an experimental way to bring participatory spectatorship to football matches, argue:

Participating as spectator or fan includes many activities ranging from everyday following and discussing the sports to social activities of engagement in sporting events. In spite of this, most often technological systems at sporting events seek to augment the event in a way that replicates the passive consumption of broadcast television. (97)

Their argument shows that media practices and developments can influence spectatorship, in this case by providing means for participation. Spectatorship itself is changing with such developments, because the way of how an event is mediated and how the spectator is engaged to participate by media creates new spectatorship experiences and practices.

In order to investigate how spectatorship is transforming through media, this thesis focuses on how media concerned with eSports make participation for spectators possible and how this influences the spectator experiences and practices. ESports is chosen as the object of study, because eSports has already matured in bringing participation to spectatorship: Ludvigsen and Veerasawmy identify that most often technological systems

at sports events do not create possibilities for spectators to participate, whereas the technological systems concerned with eSports, like a video game providing a spectator mode, do create options of participation for spectators of eSports. The unique relation between eSports and media, described by Hutchins (2008), influences spectatorship surrounding eSports. Thus, eSports serves as an excellent object of study in relation to spectatorship practices, especially participatory ones.

1.3 – Playing and Spectating

The methodology approach consists of two parts. The first part serves to understand eSports and eSports spectatorship. This methodology is inspired by game studies scholars Frans Mäyrä (2008) and Espen Aarseth (2003), who both elaborate on methodological approaches for the relative new field of game studies. These researchers argue for playing video games as a method. This thesis extends on this notion by not only playing video games as a part of the methodology, but also by spectating eSports. In this way, eSports spectatorship can be understood better.

Following Mäyrä (2008), notes have been made by the researcher concerning points of interest for this thesis while playing and spectating *League of Legends* (Riot Games 2009). *League of Legends* is a multiplayer online battle arena (MOBA) game for the PC where two teams, usually consisting of five players each, compete against each other. Even though there are many eSports video games that offer spectator possibilities, *League of Legends* is chosen to investigate because it is the most popular eSports title in terms of people playing it and spectating it, and the possibilities for spectators of this game are extensive: there are multiple camera modes, including a virtual camera, spectators can go back and forth in time, and spectators can easily locate and follow high-end matches by using the system of the game.

Playing this game served to become familiar with how *League of Legend* works and to understand the more advanced moves professional

players make. Specifically these advanced moves can be of high value to spectators. One has to be quite familiar with a video game in order to fully comprehend such advanced moves. Therefore, following Aarseth's (2003) seven layers of engagement, the aim was to play as an expert player, gaining as much insight into the video game as possible.

In order to know more about spectating, the researcher has spectated hundreds of eSports matches by means of various spectator methods: watching streams, using the system of a video game to spectate and viewing videos. All the spectating happened by means of the PC. The researcher has also visited the eSports event Intel Extreme Masters (IEM) 2013 World Championship in Hannover, Germany.

Furthermore, Aarseth argues that next to playing a video game, one should also gather as much information as possible about a game from other sources. When translating this to spectatorship, in order to know everything about the total experience of an eSports spectator, the researcher streamed own gameplay for others to see, and eSports news as well as forums concerning eSports were read, focusing mainly on *TeamLiquid.net*, one of the biggest eSports community sites founded in 2001 by Victor Goosens and Joy Hoogeveen.

1.4 – Formal Analysis

Schäfer (2011) argues that, next to other actors, technological qualities and technical design matter in shaping media practices (10-11). In order to locate technological qualities that enable or restrict participation of the spectator through eSports spectatorship media, and to identify how design is of influence on eSports spectatorship, the second part of the methodology describes a formal analysis, which is a method rooted in the study of art providing a way to analyse and compare form and style of art, but which is also useful in other fields of study to focus on formal aspects (see Chandler and Munday 2011; Bolter 2002).

Two platforms providing eSports to spectators are investigated in this analysis: *League of Legends* and *Twitch*. With the former, the system of a game is used to spectate. The latter is the most popular video game live streaming platform owned by Justin.tv Inc. Video game live streaming is a popular way of sharing gameplay that others can spectate. Next to video game live streaming and using a system of a game to spectate, there are various other methods of spectating eSports, like watching a television broadcast or video on demand. However, as will be shown in this thesis, these methods are very similar to traditional spectatorship methods, and are therefore of less interest to this analysis. This in contrast to the two platforms analysed, which entail various unique aspects compared to other methods of spectatorship.

As expected in a formal analysis, there is a focus on the formal aspects of these platforms, thus on the form, and not on the content. This is an adequate way of analysing the subject matter, because this thesis focuses more on the spectating itself and less on the spectator. One of the arguments brought forth in this thesis is that because eSports is integrated with media to such an extent, it makes eSports spectatorship a unique form of spectatorship. By performing a formal analysis, the focus is on the media, by looking at how formal aspects can influence spectatorship, and thus how technological qualities and design are of influence on eSports spectatorship.

A downside of the formal approach is that it lacks cultural context (Bolter 2002, 78). Indeed, following cultural theories' critique, media technologies are not "[...] autonomous agents of cultural change." (77) In this research, some of this cultural context is given in the preceding chapter which concerns the history of eSports spectatorship. Still, there is a focus on technologies and formal aspects in general, possibly making for a lack of cultural context. Future research using ethnographic techniques might therefore be fruitful.

The analysis is structured by following the approach used by Schäfer (2011) to analyse user participation. Schäfer distinguishes "[...] three

procedures that shape technology: affordance, design, and appropriation. These are terms that differentiate specific aspects in technology development according to the actors involved." (19) Schäfer uses these procedures to analyse "The actual social use of software, software based products and Internet technologies [...]" (19). With the formal analysis, Schäfer's affordance and design are analysed. The history described in chapter 3 partly focuses on Schäfer's third procedure, appropriation. Affordance, a term introduced by Norman (1998), and design are closely linked to each other. Schäfer (2011) explains them as:

Affordance describes two characteristics, the material aspects, or the specificity of an object or a technology, and the affordance imposed on it through the design. Design describes the creation and shaping of artefacts. Design creates its own affordances but is also subject to the affordances of the materials utilized. (19)

In the case of the eSports platforms, affordance is thus about the technological qualities and about how design creates affordances. In turn, design depends upon the affordances of the technologies that are utilised. Appropriation is about the use of technology by users: "Appropriation means that users integrate technology into their everyday practices, adapting and sometimes transforming its original design." (19-20) Appropriation is affected by affordance and design (20). In turn, appropriation can be of influence on affordance and design.

Schäfer's procedures are an excellent fit for the formal analysis, not only do they bring structure to the analysis, they also help to bring focus to the influences of technological qualities and design in relation to participation, which, according to this thesis, is the key aspect that is of influence on eSports spectatorship. The formal analysis follows in chapter 3.

2 – Historical Path

This chapter starts describing the roots of eSports spectatorship and follows its development to the present day. It distinguishes five sections shaping eSports spectatorship: 1) arcade, early home consoles, and fighting games, 2) demo files, machinima, and virtual camera 3) Networked gaming, eSports games, and fan influences, 4) video game live streaming, and 5) professionalisation and commercialisation.

2.1 – Arcade, Early Home Consoles & Fighting Games

ESports spectatorship goes back a few decades, as players have been competing with each other since the very first video games. Taylor (2012) identifies that the first public video gaming appeared at arcade halls in the early 1970's (3). With this first public video gaming, eSports spectatorship came into existence as well. Besides playing, one could watch others play in the arcade halls. This early form of eSports spectatorship was on-site: spectating over the Internet was not available yet. Also, as arcade halls were usually public places, accessible for those interested, spectatorship mostly happened in the public domain. Note that even with such on-site spectatorship, eSports is always mediated to the spectator, because a match is played in a digital environment. Thus while the earliest form of eSports spectatorship was on-site in nature, similar to a traditional sport like football, the difference to on-site football is that on-site eSports is still mediated. This concurs with the statement that eSports is integrated with media instead of interrelated, even when spectating happens on-site.

Competition between arcade players was not organised across time and space during these times. This improved steadily, however, with the use of high score lists. Besides being often stored locally on arcade machines, high scores lists were sometimes collected in order to be compared and spread. This spreading happened, for example, by printing these lists in magazines (4). The high score lists increased the possibility of

competition across time and space. Though, viewing the results of a video game by means of a high scores list is not the same as spectating competition between players. Still, it can be argued that this exchange of high score lists is some form of spectatorship where the spectator only sees the results. The most interesting aspect of this early form of spectatorship – if it is indeed a form of spectatorship – is that it did not necessarily need to be on-site. This indicates that high scores lists made following competition across time and space more accessible for spectatorship as well. This expands eSports spectatorship practices from having to be on-site to not having to be on-site. What high score lists also show is that not only digital media, but also media like magazines can generate eSports content and expand eSports spectatorship practices.

Television shows showed interest in the new phenomenon of competitive gaming too. *Starcade* (JM Production Company), broadcasting from 1982 to 1984 in the United States, is one of the earliest examples of such a show that deals with competitive gaming. Except for in South Korea, television channels broadcasting eSports are almost non-existent at present, therefore it is interesting to see that early eSports spectatorship partly took place by means of television. Television influenced practices of spectatorship by offering the possibility to spectate across space, because one did not have to be present on-site to spectate. Also, spectatorship could happen across time after the actual game was already played, because such broadcasts were not always live and could be repeated.

The increasing use of home video game consoles pushed the arcade scene out of the picture (Taylor 2012, 5). A significant influence of the video game consoles was that they transferred the gaming experience from the public arcade halls to the private space. With this transfer to the private domain, it can be argued that eSports spectatorship lost some of its presence. Where previously gaming happened in the public domain of the arcade halls, now gaming was relocated to one's own private domain. Consequently, competition also became more private. Where in the arcade era the first public competitive gaming can be found as well as early forms

of eSports spectatorship, the early video game consoles, in contrast, underwent a transformation to the private sphere, thus transforming eSports spectatorship into a more private practice. Note that later on video game consoles did become an important aspect of public domain competition.

The genre of fighting games, first being played on arcade machines and later on at home with game consoles, has been a significant factor in the growth of eSports spectatorship. *Street Fighter II: The World Warrior* (Capcom 1991) can be regarded as the most influential fighting video game having a huge impact on the genre and on eSports spectatorship (Loguidice and Barton 2009). In *Street Fighter II*, two players can compete against each other. This game was the first to introduce attack combinations that players could make by pressing certain button combinations. A player could get very skilled at this and could, this way, easily beat others with less skill. A form of eSports spectatorship arose which could be compared to spectatorship of traditional fighting sports like boxing. This form was intentionally about on-site spectatorship as it preceded networked gaming. Also, competition happened and still happens simultaneously in the genre of fighting games and can be spectated simultaneously, which is in contrast to the non-simultaneous competition of getting the best high score.

Presently, fighting games are still being played competitively and fighting game tournaments that attract many spectators still occur frequently.³ Note that this competition happens by means of home consoles mostly, not arcade machines. The documentary *King of Chinatown* (Psycho Crusher Productions 2010) follows a professional gamer in the genre of fighting games. With respect to eSports spectatorship specifically,

³ For an impression of the crowd at fighting game tournaments, see the video 'Evo 2012 moments': http://www.youtube.com/watch?feature=player_embedded&v=QIIsxpz92g.

it shows fighting game tournaments where two players stand in front of a screen with each a controller to give input to the system. The players competing often are surrounded by on-site spectators who are following the match, and who show similarities to traditional fighting sports spectators in terms of how they act. The fighting game genre, with its similarities to real world fighting and high skill level that can be reached, is one of the earliest genres where eSports spectatorship really took off.

2.2 – Demo Files, Machinima & Virtual Camera

The next step in eSports spectatorship history was the release of the first-person shooter for the PC titled *Doom* (id Software 1993). One of the features of this video game is that you can record your gameplay into a demo file – also known as replay file. Such demo files can then be shared with others by, for example, using a floppy or posting them on an online bulletin board. After receiving a demo file, it can be loaded and spectated by others by means of the software of *Doom*. Internet connections were not yet fast enough to share large video files or stream gameplay at the time *Doom* was released, but demo files are small in size, and make it possible to share game footage even without the fast Internet connections available today (Watson and Stine 2003). In this way, demo files made spectatorship more accessible.

People can spectate demo files for multiple purposes. Some demo files show how to clear a level, getting all possible items and killing all monsters. Others are about finishing a level as fast as possible. Demo files can also be about the showing of skills. Spectators can watch such demo files in order to learn and to become a better player. Such self-improvement is an important reason to spectate. More on this notion of self-improvement follows below.

Quickly after demo files were used, the gaming community began using these files to create machinima. Machinima is a term derived from 'machine cinema' and 'machine animation'. Henry Lowood (2005a; 2005b),

whose research interests lie with the history of technology and game studies, defines machinima as “[...] making animated movies in real-time with the software that is used to develop and play computer games.” (2005b, 10) Lowood argues that a player who creates machinima turns into a performer (11). One of the most well-known early machinima is *Diary of a Camper* (United Ranger Films 1996), which was made by a gaming team called The Rangers. They made this machinima by using the software of a video game they also played professionally: *Quake* (id Software 1996) – which is the successor id Software’s *Doom II: Hell on Earth* (1995). Because machinima often was stored in a demo file, you often needed to possess the game it was made with, in order to be able to open and spectate it.

Next to telling a story, machinima can demonstrate skill. Also, machinima are used for sharing strategies and tactics between players (Lowood 2005b, 13). Recorded matches that happened in the past can be viewed on demand with these machinima. Lowood argues: “Spectatorship and the desire to share skills were the cornerstones of the creation of a player community eager to create and distribute gameplay movies.” (13) While something like broadband was not available yet, demo files and machinima thus provided eSports spectatorship with an early platform to spectate game matches. A spectator did not have to be physically present to view a match and could spectate matches from home at any time desired.

Besides the possibility of creating a small-sized demo file, a video game like *Quake* offered the possibility to observe a match as a ‘ghost’ with a virtual camera. With such a virtual camera, machinima could be made with quite some freedom, because the camera angle and position could be chosen freely. And also, as a ghost observer, in contrast to as a player, one was not restricted to gravity and could fly around the field. This way, a video game like *Quake* provided great means for performers to create animated movies in real-time.

The virtual camera can be used by spectators to decide themselves where to look too. Many video games have a relatively big playing field compared to most traditional sports. Catching all the action that is going on is not always easy. For instance, it can happen that at the north part of a big gaming field an intense battle is going on between two players and at the south part too. With a virtual camera the spectator can choose where to look. This way a spectator might choose to look at the battle happening in the north for whatever reason.

What also comes into play here, is that an automatically directed camera, or a virtual camera controlled by the organisers of an event like the IEM 2013 World Championship, usually focuses on the most action-packed parts. A spectator might, however, be more interested in certain details, like how a player tactically engages with non-player monsters. Looking at certain details a spectator can learn about such plays, which then can be used later when playing him or herself. This aspect of self-improvement is specifically apparent with eSports spectatorship. Nowadays, numerous videos can be found on the Internet where a virtual camera is used in a game to direct what is brought on screen. This footage is recorded and shared online as a video. An example of a platform where such videos can be found is *YouTube* (Google). Videos with skilful actions by players are prevalent. Besides the usual seeking of entertainment, eSports spectators can thus be looking at matches in order to become better players. A virtual camera thus gives excellent means to a spectator to focus on whatever part of the gaming field desired.

2.3 – Networked Gaming, ESports Games & Fan Influences

The rise of networked PC gaming can be identified as the next big step in the history of eSports spectatorship. The PC already existed for decades, however, it took until the early nineties for the technology of PCs to become advanced enough in order to significantly host eSports. Faster PCs, video games with great eSports potential and the possibility of networked

gaming were influential factors in the growth of eSports spectatorship in the early 1990's. *Doom* can be seen as being of great significance to eSports spectatorship, in part because of the possibility of networked play that arose simultaneously: instead of playing against the computer, LAN (local area network) and DWANGO (Dial-up Wide-Area Network Game Operation) made it possible for players to play against each other (Taylor 2012, 6). eSports spectatorship is about watching a competition between players and *Doom* is one of the early video games that started a trend of competition between players by means of networked PC gaming. This trend would become one of the cornerstones of eSports spectatorship.

The same year that *Quake* was released, enthusiasts of the *Quake* community launched a big LAN event named Quakecon. This event was accessible for all players willing to come to the event with their own PC. Specifically the first event, Quakecon 1996, can be seen as an important event for eSports spectatorship in the sense of setting a trend. Besides playing together, players could spectate others playing. Of special interest to this thesis is that organised competitions were also hosted for *Doom* and *Quake*. The event bolstered spectatorship by setting the stage for an organised high-level competition which could be spectated. Because of the popularity of the event, id Software and sponsors quickly started to support it. There has been a Quakecon event every year since 1996 up till now.

LAN parties like Quakecon made it possible for many players to get together and compete face-to-face. Also, the eSports community grew because of such events (Taylor 2012, 9). Besides gaming at LAN parties, competition can be spectated by on-site spectators. These spectators often play video games at the LAN parties themselves too. Throughout the years the increasing professionalisation of eSports created more of a gap between regular and professional players: at contemporary eSports events, such as the IEM 2013 World Championship, areas in which professional gamers are playing are usually sealed off for the general

public. Yet, it still occurs that high-skilled professionals are among the regular players, especially at LAN parties.

Soon after Quakecon, more tournaments involving *Quake* and other video games emerged. Such tournaments were often held at games, computers, and electronic items fairs and exhibitions. Visitors of the fairs could watch these tournaments, and the players playing at these tournaments were the top players of the game they played. Big LAN parties and on-site tournaments started the actual PC eSports and still occur frequently. The difference between tournament events without bringing your own PC and LANs is that at the former the spectators are spectators, while at the latter they are usually players who might sometimes be spectating.

Simultaneous with the rise of big events such as Quakecon, network possibilities were expanding from early online gaming services like DWANGO to the Internet as we know it today. With this development, the possibilities for spectating video games became more and more numerous. Taylor (2012) gives a compelling argument as to how the Internet influenced eSports:

The Internet makes scaling niche activities possible. Even though you may be one of only a handful of players in your town who is interested in competitive gaming, by being able to go online and connect—and compete—against others, a nascent e-sports community is able to form.
(9)

Though geography remains an influential factor, the Internet brought players all over the world together. Instead of spectating by being on-site at a LAN party or tournament, or by watching television, people can spectate games from their own home using the PC. The amount of on-site spectators at a certain event is restricted by factors like space available at a certain event, costs and travel distance. In contrast, watching from home is much more easily accessible – as long as you have a PC and an Internet connection available.

The Internet also significantly influences eSports spectatorship specifically. Community websites like *TeamLiquid.net* serve as platforms for players to share their interests. Videos, podcasts, news items, and streams connect players to aspects of gaming that are about more than playing games itself. Examples of such aspects are talking with other players on forums about top players or reading news concerning tournaments. ESports spectatorship thus is about more than watching a video game being played. Aspects besides spectating, like fan activities, have to be taken into account when investigating eSports spectatorship. These aspects besides spectating a video game, aid, or might even facilitate, the creation of a solid bond between the eSports spectator and their hobby.

Besides vast improvements in network possibilities, popular eSports games help developing eSports. The previously mentioned eSports games *Street Fighter II*, *Doom*, *Doom II*, and *Quake* have shown that good eSports games are of significance for developing eSports spectatorship. Many other successful eSports games followed, including games with other genres than the fighting genre and first-person shooter genres – e.g. real-time strategy games and football games. Besides the PC, home consoles still form an important platform for eSports games too.

An interesting case is the first-person shooter *Counter-Strike* (1999), a modification by two fans, Minh Le and Jess Cliffe, of the game *Half-Life* (Valve Corporation 1998), which quickly evolved into a famous eSports title. *Counter-Strike* is of specific interest to thesis not only because fans made it, but also because it focused on a five versus five competition, whereas games like *Street Fighter II*, *Doom*, and *Quake* focused on a one versus one player competition. Besides watching individual players, spectators were now able to see teams play against each other. This addition of team play brought new dynamics to spectatorship, like that a spectator could now look at how players combined strategies and tactics with other teammates to their advantage. *Counter-Strike* thus shows how characteristics of a video game are able to influence spectatorship.

Counter-Strike also shows that participatory practices of fans are of significant influence to making eSport into what it is today. Other examples of fan influences are Quakecon, and the community website *TeamLiquid.net*, founded by two avid *StarCraft* (Blizzard Entertainment 1998) players. Fans also create third-party software which influences eSports spectatorship. Take for example ‘zoom hack’ software for *League of Legends*. With such software, a person can zoom in or out more than the *League of Legends* software normally allows. There is also software available which makes it possible that the virtual camera is angled. Such software is made by users, and extends the possibilities for these users. Certainly spectators of traditional sports on television can also record the content and change this in numerous ways. Yet, such content is originally recorded with a physical camera, which restricts user appropriation – one cannot change the camera angle radically, for instance. In contrast, the virtual camera in *League of Legends* is based on software, and software can more easily be appropriated by users (Schäfer 2011, 71), making it possible to not only control it, but also to extend on its designed possibilities.

Such appropriations like a zoom hack can be used by a spectator to influence their spectator experience. In this way, spectatorship practices can include the alteration of their own spectator experience by using, or creating, third-party software, thus expanding the possibilities they had as intended with the original design. How many of the spectators make such alterations remains the question, however according to information of scientists Gifford Cheung and Jeff Huang (2011): “[...] spectators are typically informed and invested [...]” (771), indicating that eSports spectators are familiar with what is watched and that they may be active in altering their experience.

2.4 – Video Game Live Streaming

The next significant step in the history of eSports spectatorship is the rise of video game live streaming. Video game live streaming denotes the technology of continuously transferring a video and audio feed over the Internet from one sender to one or more receivers. In this way, the spectator can follow the action happening live. It is common for the receiver to use a web browser to spectate a video game live stream. Streaming is data intensive, therefore its relatively recent surge has to be regarded in relation to the increasing speed of Internet connections.

Where previously big professional hosted tournaments often used their own streaming system, and spectators had to pay in order to watch, presently these tournaments can be followed using big streaming hosts like *Twitch*. Instead of having to pay for a ticket to watch a big tournament, spectators now often do not have to pay. This is surely linked to the fact that the costs of streaming for big tournament hosts reduced because big tournaments hosts could allocate it to stream hosts like *Twitch*. The difference between having to pay for a ticket to see a big event and being able to watch it for free, has a positive influence on eSports spectatorship, because eSports becomes more affordable for spectators.

Stream hosting websites like *Twitch* do not only stream major matches of games like the *League of Legends* finals of IEM Katowice. They also host streams for individual players who want to stream their gameplay. The threshold to become a streamer is relatively low, and an increasing number of streams can be found on the Internet. Because advertisements generate the income, there are no costs for the player to host a stream through such websites. In contrast: a part of the advertisements' profits usually go to the player that is streaming his or her gameplay. This makes it all the more interesting for players to stream their gameplay, many of the top *League of Legends* players, for example, can be found streaming their matches from time to time. These players generate income when spectators of their streams receive these advertisements

when watching. In a way, this commercialises spectatorship. Of course, the correlation between spectatorship and economic benefits is not something new, though that players themselves can earn money when others watch their gameplay is an interesting development – and these players definitely are not only professional players.

Kaytoue et al. (2012) monitored *Twitch* for approximately one hundred days in order to find trends in the amounts of active streams and viewers of those streams. Their following argument is of specific interest to this thesis:

[...] watching video game live streams tends more and more towards becoming a new kind of entertainment on its own. This new media democratizes the discovery of new video games or professional gaming scene. (1181)

They view video game live streaming as a new kind of entertainment because of multiple aspects. Two of those aspects are that 1) most content is generated by users, and 2) major eSports events and new game releases cause a big increase in the total number of viewers (1188). Oddly, Kaytoue et al. do not elaborate on what it is that democratises the discovery of new video games and the professional gaming scene. One can argue that both discovering new video games and spectating the professional gaming scene are democratised because it is spectatorship to content usually generated by users instead of, for example, game magazines, commercial events, or game developers. Also, content of a game can be viewed without having to possess that specific game. Thus, with streaming a shift can be recognised from traditional mass media that is creating the content to user generated content. Kaytoue et al. also show, however, that there are a few popular streams and many streams with hardly any spectators. Thus, power laws that create a gap between a few popular streamers and many not so popular ones are still apparent. The analysis concerning streaming, following in chapter 3.2, elaborates on how streaming influences eSports spectatorship and its practices.

2.5 – Professionalisation & Commercialisation

Since the beginning of eSports, it has been increasingly professionalised and commercialised. This increase has influenced eSports spectatorship practices as well. A case of interest is the previously mentioned game *League of Legends*, which has become one of the most popular eSports games of today. This game is especially of interest because the developers, Riot Games, seem to acknowledge that being a successful eSports title means becoming more popular and, thus, gaining more profit. Not only did Riot Games make a game that lends itself to be a good eSports title, they also boost and promote the eSports scene around their title. With the first season of *League of Legends*, it became apparent that Riot Games' title served well as an eSports game. One event making this apparent was held in the first season of *League of Legends* at Dreamhack Summer 2011, located in Jönköping, Sweden. One of the tournaments hosted here was a *League of Legends* tournament. This tournament lasted three days during which, according to Riot Games, a total of 1.69 million viewers followed the streams, with 210,000 unique viewers at the finals (Funk 2011).

Near the beginning of the second *League of Legend* season, Riot Games focused more on eSports. They announced to distribute a total of five million dollars of prize money to their own league as well as to third-party tournaments. They also added an in-game spectator mode, improving the spectator's experience. In the third season, Riot Games paved the road by hosting a season long championship league between eight professional *League of Legends* teams who had qualified for this league. All the matches played between these teams were professionally directed, had professional commentators, and could be followed for free by streams. In 2012, *League of Legends* had become the world's most played video game (MacManus 2012). It can be argued that part of this success can be ascribed to Riot Games' focus on eSports, which shows that developers of video games can use eSports to gain more profit. Riot Games

surely seems to have successfully commercialised the eSports scene surrounding their title.

The increasing commercialisation of the *League of Legends* eSports scene seems to cause an increase in professionalisation of eSports. Commercialisation allows more players to become professional and transforms gaming from a hobby into a regular job. This way, creating a professional show for spectators is more profitable for tournament hosts, and also this way, commentators and referees can join the scene and make a living out of their hobby. A professionalised and commercialised scene becomes an interesting business opportunity for sponsors too. Note that the increase in commercialisation and professionalisation is not something unique to the *League of Legends* eSports scene, but that it is a trend for eSports in general.

The increasing commercialisation and professionalisation of eSports definitely has its influences on eSports spectatorship, for it has created an increased focus in gaining eSports spectators. In order to gain more spectators, eSports spectatorship has been improved by, for example, improving eSports games' quality, having more high-skilled players play, improving spectating methods, and so on. The question if eSports spectatorship has indeed improved because of the commercialisation and professionalisation can, however, not be answered, as this is a matter of personal preferences. It is beyond doubt, however, that the commercialisation and professionalisation not only enlarges the number of eSports spectators, but also influences spectatorship practices, by, for example, adding more spectator possibilities to games.

The professionalisation and commercialisation of eSports seems to increase the remediation of traditional television broadcasting sports events. Remediation is a theory by Bolter and Grusin (2000). In his article, Bolter (2002) argues that "A remediating media form always depends on the authenticity of an older (or other) form and at the same time claims to surpass it (with something 'new')." (80) Bolter looks at how formal elements of media are borrowed from each other and are refashioned (80).

Furthermore, he suggests that “When a new media form borrows formal elements, it necessarily also borrows the cultural significance of those elements.” (86) It thus can be concluded that eSports borrows formal aspects of traditional television broadcasting sports. This especially is the case with big eSports events, which are quite similar to big traditional sports events: next to commentators and a directed camera that cannot be influenced, a show is given with music and lights, the audience is shown on screen, there are interviews with the players, trophies, and great amount of cash to win for the players. With such shows, participation possibilities of the spectator are diminished, for instance, there is no virtual camera for the spectator to control and users do not generate the content. Such remediation arguably makes eSports spectatorship more similar to traditional sports spectatorship. So while aspects like a virtual controllable camera are considered in this thesis as unique aspects of eSports spectatorship, it seems the case that when eSports spectatorship remediates traditional methods, such aspects of participation dissolve.

This chapter demonstrated that players, spectators, and other factors, like gaming events and game developers, influence eSports spectatorship practices. The role of information and communication technologies, video games, and media in influencing eSports spectatorship is definitely no small one too. ESports spectatorship is so intertwined with media that both cannot be studied separately. It is a phenomenon under construction and it is continuously changing. Spectatorship started out in the arcade, only taking place on-site, whereas nowadays players can easily share their gameplay with many others online. The insights gained in this chapter are elaborated on further in chapter 3.3.

3 – Spectatorship Analysis

This chapter concerns the formal analysis of two platforms providing eSports to spectators: *League of Legends* and *Twitch*. As mentioned in the introduction, the analysis is structured by looking at affordance and design, two of Schäfer's (2011) procedures that shape technology. In the case of the two platforms, which are technologies, affordance is about the specificities of the technologies utilised, and about how design influences affordance. Design is about the creation and shaping of these platforms, it creates its own affordances, however, also depends upon the affordances of the technologies utilised. As Schäfer notes, the three procedures are interdependent, and though the first two aspects are analysed separately from the latter, some minor overlap can occur. The second part of this chapter combines the insights gained in the formal analysis and insights gained in chapter 2, determining key aspects of eSports spectatorship.

3.1 – In-game Spectator Mode

As shown in the history of eSports spectatorship, video games can have an in-game spectator mode. A spectator mode refers to the mode in which a spectator can follow what happens in a game, but cannot influence the state of a game. It is necessary to run a game in order to enter its spectator mode, hence 'in-game'. *League of Legends* has such a spectator mode within its game client. The spectator mode is based on the *League of Legends* software and looks similar to the player mode.

In his book, Schäfer (2011) discusses how the computer, software, and Internet technologies enable or repress participation. *League of Legends* uses these three technologies too. The software of *League of Legends* is subjected to the PC, because the PC serves as the platform on which the software can be executed (Schäfer 2011, 58). As Schäfer argues, software is tentative and remains unfinished (67). Riot Games makes use of this affordance of software and constantly improves their software,

sometimes changing the spectatorship experience too. An example of this is an update of the *League of Legends* software adding information which can be made visible or not by spectators through the user interface. Note that the software of *League of Legends* is closed, therefore adjusting it is somewhat difficult for users. This is to be expected, because not only does this protect Riot Games' interests, it also helps keeping the playing field levelled.

The Internet is used to download and install the *League of Legends* software – for free, because *League of Legends* uses a free-to-play business model – and to connect players to each other. However, *League of Legends* has nine servers in the form of regions, and players can only find each other when they are on the same server. Because a player can only connect to one server simultaneously, players are not connected to each other globally, but are connected to the players of a specific server. This way, the affordance of the Internet to be 'global' is adjusted through design by making geographical locations matter.

The spectator mode can be entered in three ways: 1) by creating or joining a game as a spectator that is being constructed, 2) by joining a high-end game displayed in the lobby as a spectator, or 3) by clicking on a person in your friend list who is playing at that moment and joining that game as a spectator. Each way is different from the others. One of these differences has to do with ranked games. *League of Legends* has 'normal' games and 'ranked' games. Ranked games are considered to be 'the real deal', because here players and teams play for points that count for a ranking system. With the first method, one cannot spectate ranked games, because ranked games are not arranged in such a way that a spectator can join, which is a restriction by design. The second method is mostly used to view ranked games. With the third method, it depends what type of game the persons in someone's friend list are playing. In order for someone to be your friend, they have to accept your invitation, so it might not be that easy to just befriend anyone and spectate their games without proper introduction.

The three methods are designed by Riot Games. Together, these methods offer some matches that can be spectated, though, a spectator can only spectate a fraction of all matches that are being played at a certain moment. The second option of high-end games displayed in the *League of Legends* lobby offers only a fraction of such games to spectate – around five games at any given moment. Also, Riot Games puts different information and artwork in the lobby sometimes, consequently hiding the high-end games for a certain period. Thus, the options for the spectator are limited by design choices. Note that there is a fourth method: loading a replay file. Oddly, this method is not designed by Riot Games, as is normal with most video games, but by users. Next to normal games, there are generally quite some replay files of ranked games available.

After joining a match as a spectator, the spectator mode is the same in *League of Legends* for all match types. The spectator mode makes it seem like the match that is joined happens live: the word ‘live’ can be found on the screen. Here live is not meant in the strict sense of the word, because there is a delay of a couple of minutes to prevent cheating. This delay is understandably built in, because without it, one could, for example, join a game of a friend as a spectator and communicate to the friend what the enemy team is up to. This delay is implemented as a design choice by Riot Games and has to do with the spectator getting more information than the players. Studying the user interface, this matter is explored further in the following paragraph. Note that in the case of replay files, the word ‘live’ is simply incorrect, because the spectator can load a replay file at any moment, long after the match loaded with a replay file has concluded.

The user interface is a significant aspect of every spectator mode and of every video game in a more general sense. This interface has been present in video games since its early days. Information technology scholar Stein C. Llanos and information and media theorist Kristine Jørgensen (2011) define the user interface as “[...] a system that provides the player with gameplay relevant information and with the right tools to interact

with [a] game.” Note that though the user interface is usually not part of a game world, it can be designed to be so (1-2). Not only the player has a user interface: the spectator has one too, for it is an important aspect mediating game matches to the eSports spectator. This interface can be the same for the spectator as the one for the player or it can be a different one. With *League of Legends* the spectator mode gives the spectator information that the player does not get, like information about how much gold both teams have earned, and which abilities are or are not available for the players to use.

The first aspect of the user interface of the *League of Legends* spectator mode can be characterised as mediating the state of a match. Examples are a map of a game world and textual indicators of how much damage is done to something or someone. In contrast to the user interface of a player, the interface of a spectator with the in-game spectator mode is adjusted to quickly inform the spectator about the progress of each individual player, their gear choices – which is something of importance to the strategies and tactics of *League of Legends* – and the progress of both teams in general.

The second aspect of the user interface, which is discussed next, deals with the participation possibilities of a spectator in the game world. In contrast to the first aspect that has to do with mediating the state of the match, participation of the spectator in the game world is only possible when using the in-game spectator mode. The interface offers options of controlling the moment and speed of the match. A spectator can pause, play, rewind, fast forward, slow down, or speed up the match that is viewed. There is also a timeline which can be clicked on to skip forward, backward, or to go to any moment in the match desired. Finally, there is a ‘jump back 15 seconds’ button, which makes it easier to go back in time than the rewind or the ‘go to any moment’ method. The going back in time options are restricted because of the fact that a spectator cannot go further back than the moment a match was joined by that spectator, which can be considered a restriction by design, or maybe a restriction by the affordance

of the technology of Internet, because in order to go further back in time too much data would have to be buffered constantly for too many matches. These options of controlling the moment and speed of the match are not unique, and can be found in a similar way in television too, where a viewer can pause and play a program and so on. However, because of the affordance of a PC, with its convenient mouse and keyboard to give input, using such options might come more natural for spectators of eSports than for spectators of television where the spectator has to use the remote controller to give input.

Other options include that the spectator can change some aspects of what is shown on the user interface, thus enabling or disabling certain overlays, or disabling the entire user interface, and a few options to change the information shown to the spectator, like how much gold each player has earned or which items each player has bought. The spectator can also change between what is visible: both teams can be visible, or only one team. This way, the spectator has the option to either see everything, or to only look at the match from one point of view. The spectator thus has several options available with respect to what the user interface shows and what is visible on the gaming field. These options are predefined and limited; it is debatable whether they are a form of participation at all. Still, possibilities like this can be of influence on the practices of the spectator, because the spectator becomes somewhat actively involved in what is mediated to him or her.

What can be considered specifically unique about the in-game spectator mode, in comparison to other spectatorship methods, is that the spectator can choose, influence, and change camera modes. *League of Legends* has an automatically directed camera mode, a camera mode where one can follow any individual player, and a virtual camera mode.

With an automatically directed camera, a spectator can sit back and spectate without having to press buttons. This camera automatically focuses on the part of the game world where action occurs. Yet, the spectator can influence this camera. First, by pressing the spacebar the

camera goes to a different part of action in the game world than it is currently showing. Second, if the spectator clicks somewhere on the mini-map, which is a small map showing the entire game world at the bottom right of the screen, then the camera goes there and stays there for five seconds. Third, if the spectator clicks on a player visible on the screen, then the camera follows that player for five seconds. After such a period of five seconds, the camera returns to its automatic directed function again.

The camera mode where a spectator can follow an individual player fixes itself on the player chosen by the spectator and follows that player. In a sense, it is automatic too, though unlike the previous camera mode, it does not move away from the player it is fixed on – unless if that player is killed, in which case the camera stops moving until the spectator directs it again. The camera mode where any individual player can be followed allows for the spectator to exactly see how that player plays.

With a virtual camera, as discussed in the previous chapter, it is possible for the spectator to direct his or her view to anywhere on the game field. The spectator can zoom in or out, though the angle of the camera cannot be changed, which is a restriction by design – which can be overcome by using something like a zoom hack, as mentioned in chapter 2.3. Next to the option of switching between camera modes and certain possibilities of influencing the automatically directed camera, a virtual camera gives the spectator more control of the spectator experience. These options together provide for participation of the spectator, because the spectator can influence what images he or she can see on the screen.

3.2 – Twitch

As written above, *Twitch* is a platform hosting video game live streaming, which is a technology that is explained in chapter 2.4. It is the most popular of its kind, in terms of available streams and viewers to those streams. *Twitch* makes use of the Internet and World Wide Web (WWW) technologies. A browser is used to enter the platform. WWW is a

standardised technology somewhat realising the ideology of Internet to create universal access (Schäfer 2011, 72). It does not come as a surprise, therefore, that *Twitch* is usable by all sorts of computers, operating systems, and browsers. Also, videos are shown by using Adobe's widespread Flash software. With *Twitch*, streams are easily accessible for spectators, much more so when compared to the previously discussed *League of Legends*, which only runs on the PC, and for which a great amount of data has to be downloaded and installed in order to be able to run it, taking up to multiple hours of waiting time when setting it up. In contrast, in order to watch a stream on *Twitch*, one can use a browser to spectate a stream quickly. Also, *Twitch* hosts streams concerned with a wide range of games, usually a few hundred. Instead of having to own and install each game individually, a spectator can choose to view any of the streams, and thus any of the available games, desired. Videos can also be found on *Twitch* too, usually containing moments of interest that occurred in a live stream.

The spectator first chooses a game that has streams available and then chooses a specific stream. *Twitch* puts the most popular game in terms of viewers first, continuing in a descending order. The same counts for the streams found when a game is selected. In this way, popular games and popular streams are placed in the forefront. There is a search feature too. Overall, there are many streams available to choose from, while the by Riot Games designed options to spectate, as discussed above, are limited, a platform like *Twitch* significantly increases the available material to spectate. However, as argued by Kaytoue et al. (2002), on *Twitch* there are only a few popular streams and many streams with hardly any spectators. This gap might be reinforced by the design choice of *Twitch* to put the most popular games and streams in the forefront.

When a stream is selected and loaded, the first thing that pops up is usually an advertisement – unless the spectator has a paid subscription to *Twitch*, uses software to block advertisements, or if the streamer disabled advertisements. Advertisements can pop up at any moment decided by the

streamer, though usually occur when joining a stream and after a match. After such an advertisement, the stream appears. The lay-out and interface is similar to the general template of videos on the WWW: there is a pause/play button, a mute button, a volume bar, video quality button, report problem button, pop out button, and full screen button. In most streams, the view of the streamer's monitor is shown to the spectator, as well as a view of the face of the streamer by means of a webcam. Often, the streamer also has textual and visual overlays on the screen, which, for example, are about things like social media names, advertiser images, and team logos.

Also on screen when watching a stream on *Twitch*, is the word 'live' at the top right corner of the video. In contrast to a match spectated through *League of Legends*, which has a delay of some minutes to prevent cheating, a stream of *Twitch* is indeed live: the action that happens on screen, actually happens at that very moment – though there can be a minor delay depending on the speed of the Internet connections involved. Note that this does bring forth the possibility of what is called 'stream-sniping': because one can attempt to get into the same match as the streamer and use the information gained by watching the live stream to beat the streamer in an unfair way.

Unlike in the *League of Legends* spectator mode, there are no options for the spectator to be of influence on what is mediated to him or her; there are no camera options, and the user interface is not adjustable. There is also less information provided by *Twitch* available for the spectator: when following a stream of a player, the spectator sees the same as the player and cannot see, for example, how much gold both teams have. Note that when following a stream of a big event or of someone spectating, then the spectator mode is used and the extra information does appear. Yet, the spectator cannot influence what appears on the screen. Thus less participation is possible for the spectator when watching a stream on *Twitch* in the form of influencing that what is mediated to him or her.

Regardless of these fewer possibilities, there are certainly aspects of interest in streaming. There is the possibility of live interaction between streamers and their viewers. This two-way communication happens by viewers writing in a chat box, and the streamer writing back to the viewers, or talking to them using a microphone. This way, the spectator can influence his or her spectator experience. For example the spectator can ask the streamer to play in a specific way, give tips, and so on. While this can be considered participation by the spectator, it is highly depended if interaction between the spectator and streamer occurs. A streamer might not even read the chat, after all. Also, there can be many viewers who chat, and the streamer usually cannot easily read the chat while gaming, which means that there is often no response to the chat of the viewers from the side of the streamer.

Kaytoue et al. (2012) provide a useful distinction between streams of major tournaments being one-way communication and individual streams that have the possibility to involve two-way communication (1181). Even if there is no two-way communication between spectator and player, a spectator can read the chat of other spectators. This can lead to conversations between these spectators. When there are too many viewers chatting, though, things can become a bit chaotic: because of the massive amount of viewers, the chat box of the IEM Katowice *League of Legends* finals stream was usually overloaded with messages that could hardly be read because so many would appear constantly. Nonetheless, within the *League of Legends* spectator mode and something like video on demand such live interaction is not possible, and it is interesting to see how streaming allows for more communication between not only spectators and the player streaming but also between spectators themselves.

Streaming thus expands spectatorship practices by making live interaction possible between spectators and streamer as well as between spectators, by making eSports spectatorship more accessible in general – one does not need to own the game that is being showed on a stream – and by democratising the creation and spectating of content: as discussed in

chapter 2.4, players can use a platform like *Twitch*, install the necessary software, maybe also use a webcam and microphone and start stream their gameplay.

3.3 – Key Aspects

Now that the formal analysis has been conducted, the insights gained are combined with those gained in chapter 2.

The notion that eSports is always mediated, even if spectating on-site, has influences on spectatorship. Following Hutchins (2008), the technical aspects and programming of a video game determine how eSports competition is conducted (857). Next to this, platforms providing eSports content, such as *League of Legends* and *Twitch*, can differ strongly, like that the latter offers a wide variety of games to view, and the former gives the spectator the option to control the camera, thereby influencing eSports spectatorship in different ways, enabling or restricting certain forms of participation, and possibly creating unique media practices. ESports is integrated with media to such an extent that technological qualities and the design of media mediating eSports are highly influential in shaping eSports. The history of eSports spectatorship also reinforces this statement by showing how various forms of game systems, video games, and technologies such as networked gaming and video game live streaming are of influence on spectatorship. This is one of the aspects making eSports spectatorship a form of spectatorship entailing its own unique spectatorship practices.

The analysis conducted previously shows how design can be of significant influence on eSports spectatorship. The different formal aspects found when analysing *League of Legends* and *Twitch* show this clearly: both are platforms providing eSports to a spectator, though the way in which a match is mediated differs, and offers a spectator different sets of options. Designers thus have an important influence in shaping the spectatorship experience. Of course, this is the case with something like

football too, however, football is a physical sport, while an eSports match is played in a digital world. How that world is given shape is of direct influence on eSports spectatorship concerned with it. It can thus be argued that designers have an unprecedented role in shaping the spectator experience with regards to eSports, especially in comparison to traditional sports.

Though, as discussed, users can influence design too. First, there are the options of participation created by design, by for example the *League of Legends* spectator mode in the form of a virtual controllable camera and *Twitch* in the form of communication possibilities, involving the spectator in what is mediated to him or her. Second, users or spectators can also appropriate software in a transformative sense, by, for example, creating the previously mentioned zoom hack software for *League of Legends*. With this zoom hack software users can extend on the game's design and can influence the spectator experience. With respect to influencing that what is shown on the screen, such media practices surrounding eSports spectatorship are unlike any practices concerned with traditional sports mediated by traditional media.

Next to such transformative practices, history also shows that since the beginning of eSports, fans have been of major influence on the realisation of the sport, like that fans started the first Quakecon, that players streaming their gameplay provide content for spectators to see, and that users appropriate software to extend spectatorship possibilities. Though the culture surrounding eSports might be regarded as being niche, especially when compared to those surrounding something like football, history shows that eSports spectators, being rooted in the culture of video gaming, form a productive culture that gives shape to eSports. This culture surrounding eSports can be identified as being a participatory culture. The idea of participatory culture comes from Jenkins (1992). He describes a culture that emerges with participation possibilities offered by new media technologies. With new media, the barrier for people to change from consumer to contributor is lowered. The culture surrounding eSports gives

shape to the phenomenon through participation, and the boundaries between spectators being consumers and contributors are blurry. A prime example of this blurring is video game live streaming. Here, the threshold to become a streamer is relatively low, and spectators can communicate with streamers and possibly influence the streamer and thus the content. Note that despite new media being of great influence in enabling participation, there are also other ways of participation, like organising an event.

Another point of interest is the motivation to spectate eSports: the aforementioned self-improvement. It can be argued that eSports spectators are often players of the game they spectate. Therefore, the culture surrounding eSports does not only exist of fans and spectators, but generally out of players who are fans or spectators too. Of course, traditional sports spectators can be players of the sport they watch too, though this seems the case with eSports to a higher degree.

Knowing that a spectator often also is a player, it may not come as a surprise that something like the *League of Legends* spectator mode invites a spectator to participate in a more playful way. In this spectator mode, the spectator can influence that what is mediated to him or her, by switching between camera modes, controlling a virtual camera, and adjusting the user interface. Because a spectator might often already know how to play, the similarity between the *League of Legends* player mode and spectator mode helps the spectator to be able to use the spectator mode comfortably. Even though the playing field does not exist in a physical sense, the spectator may feel as if he or she is present on that virtual playing field, becoming what this thesis names a player/spectator hybrid. eSports spectators can often be considered as such hybrids in terms of both playing games and spectating them, as well being participatory, or in other words: playful, when spectating.

ESports spectators can thus not solely be explained in terms of an active audience, or in terms of fans who do not only spectate but also perform many side activities, like discussing the sport or engaging in social

activities, thus giving shape to their spectator experience. Next to these explanations, this thesis argues that eSports spectators can be regarded as player/spectator hybrids too, because they are often also players of the games they spectate. Also, as the formal analysis showed, there can be more participation, or in other words: playfulness, involved while spectating, especially in comparison to traditional sports mediated by traditional media. This hybrid aspect of eSports spectatorship influences spectatorship practices too, by, for example, spectating a specific player of a team with the goal of self-improvement, or streaming gameplay for others to see and explaining them how they can become better players.

Combined, the aspects identified in this thesis, which mainly are the participatory, or playful, media practices concerned with eSports spectatorship, the significance of technological qualities and design of media providing eSports, and the aspect of the player/spectator hybrid, continuously transform spectatorship and create new sorts of media practices. eSports shows that when spectatorship is combined with media that enables participation, spectatorship transforms from not only including aspects of the active audience and fan practices, but also of active participation. Furthermore, a blurring of boundaries between being a spectator or fan and a player, sometimes being a producer of eSports content, is identified.

Conclusion & Discussion

The goal of this thesis was to answer the following research question:

What does eSports tell us about how to think of spectatorship when combined with media enabling participation?

This thesis investigated early arcade spectatorship up to contemporary video game live streaming, showing how spectators, users, players, fans – or combinations of those – as well as technological qualities and design aspects of media realised eSports and eSports spectatorship. While eSports spectatorship definitely shows similarities with traditional sports spectatorship, eSports spectatorship does bring unique aspects to spectatorship, transforming spectatorship altogether. It was posed that participation of the spectator made possible by media is a unique aspect specifically apparent in eSports spectatorship, which has indeed proved to be so: combining participatory media with spectatorship can not only extend the spectators from active interpreters to active participants, it also shows a blurring of boundaries between being a spectator or a fan on one side, and being a player, and sometimes a producer of eSports content, on the other side. The broad notion of participation used in this thesis, including both active participants as well as producers of content, made it possible to look at how media enables participation for the spectator, as well as how spectators participate in other ways than by using media. Yet, this thesis also identified another aspect of significance in transforming spectatorship. Because of the hybrid nature of the eSports spectator, often being a player, fan, and spectator simultaneously, spectatorship is transformed as well.

The methodology to perform this research of playing games, spectating eSports, and gathering as much information about the phenomenon as possible was intensive, though made it possible for the researcher to become like an insider of the culture surrounding eSports. Despite the obvious benefits of being an expert on the topic, a downside of

this high degree of involvement may be that personal bias can occur exactly because of being an insider. The formal analysis helped to uncover technological design qualities of eSports platforms and how these qualities can enable or restrict participation. The results of this analysis could directly be related to the research question. In retrospect though, despite the history explaining a lot about the cultural context, the focus on formal aspects does create a gap with respect to such context. Together with the approach of being an insider of the topic, this focus on formal aspects requires that for future research other spectators should be consulted, for example, by conducting interviews, to extend on the research conducted in this thesis.

This thesis concludes with a point for discussion. eSports started as a niche scene and has remained like this for a while, however, this scene has been grown a lot because of its many fans. Thus presently, it is evolving out of its nascent form. This evolution can be ascribed partly to the fact that the corporate sector is increasingly becoming involved in the development of eSports. Due to this evolution, the question rises if the professionalisation and commercialisation of eSports that seem to remediate traditional methods of providing sports, might increasingly restrict participatory aspects of media in the future. In this way, eSports might possibly become increasingly similar to traditional forms of spectatorship.

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