

THE IMPACT OF VIDEO GAMES ON THE FORMATION OF eSPORTS

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Abstract. *The aim of this study was to examine the influence of video games, as a form of digital media, on the formation of a new kind of sport. eSports take place in virtual space and do not rely only on the physical being of the participant, as is the case with the traditional understanding of sport, but on the interaction between man and a computer. This paper deals with the discourse of a contemporary game, which takes place in virtual space, and which is, according to theorists, classified as an eSports. Given that sport involves participants who occupy the "physical world", while eSport participants are in the "virtual world", as well as the fact that eSports athletes always have to use the Human-Computer interface that connects their bodies to an electronic system, a key issue that the authors of this paper seek to answer relates to whether there can be an electronic sport, and whether computer mediated sports have similarities with the traditional understanding of sport?*

Key words: *Digital media, Video games, traditional sport, eSports*

INTRODUCTION

The study of video games, as a form of digital media, is definitely becoming accepted in the academic world, but the situation with the discourse of competitive computer gaming, known as eSports, is quite different - it is in its beginning and there is still no generally accepted academic and scientific definition of the term "eSports" (Wagner, 2006).

In spite of the fact that science still does not show greater interest for the impact of video games on the occurrence of eSports, video games have been rapidly established as a

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global leisure industry that has a significant relationship with sports. Over the years, facilitated by the evolution of technology, the consumption of eSports has conceptually changed, from human vs. machine to human vs. human (Griffiths, Davies, & Chappell, 2004).

The appearance of the eSports term is related to the press release on the launch of the Online Gamers Association (OGA) in which the Eurogamer evangelist Mat Bettington compared eSports to traditional sports, back in 1999. One of the first problems to get the OGA's attention is player "aliasing", as Mat Bettington explained. On the one hand we have anonymity which is highly valued by Internet users, but on the other hand we find that this is actually detrimental to eSports. People call themselves anything they like and carry on with the most appalling behaviour, and it is almost impossible to do anything about it (OGA, 1999).

Games form the foundation for all sports (Guttmann, 1978). As a sport, they represent a particular type of ludic activity and thus are closely related to the social phenomena of play and games (Loy & Jay, 2007, 4563), and eSports can be seen as a play-based game which is similar to the game defined as Agon. There are four categories of play: Agon or games of competition, Alea or games of chance, Mimicry or games of simulation, and Ilinx or games of vertigo. For the correlation studies between games and sports, the most notable type of game is defined as Agon. Callois categorized Agon as all activities that involve competition. Beating competition equals winning. The notion of victory is most closely related to the game; however, this concept is relevant only when one plays against another (Callois, 2001).

eSports were born in and of the media (Hutchins, 2008, 857) and have become one of the most rapidly growing forms of new media (Warr, 2014). eSports have changed traditional and introduced new competition models. eSports alter the parameters of competition from models established by traditional sports. Competition leads to victory, and to win means: to prove one's supremacy through a game's outcome. The only way of winning a (eSports) match is to find and execute strategies that "outperform the strategies of the opposing team" (Wagner, 2006, 3) and the game success achieved by an individual can be, to a large extent, transferred to the group of supporters (Callois, 2001, 12).

eSports "can be traced back to the earliest days of computer gaming" (Taylor 2012, 3), but the exponential growth rate started in the past decade. eSports represent a natural evolutionary transition from the industrial society to the modern-day information- and communication-based society and digital media. eSports have become the topic of many research papers of game studies (Jonasson and Thiborg 2010; Thiborg & Carlsson 2010; Taylor 2012; Ferrari 2014) as a new phenomenon. The term eSports defines electronic matches between individuals or teams in cyberspace with personal computers, game software, and internet connections (Lee & Ko, 2005). eSports is a form of sport where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system is mediated by human-computer interfaces (Hamari & Sjöblom, 2016, 5).

Witkowski (2009, 55) points out that sports such as horse racing, Formula 1, and marksmanship involve direct physical confrontation of human bodies, while eSports players competence is not directly conditioned by their physical prowess, since they are playing while sitting in their chairs. The main difference lies in the fact that "eSports is born in and of the media, which alters the parameters of competition in terms of how it is

conducted (...)” (Hutchins, 2008, 857) and eSports and the media have become integrally interwoven instead of just relationally connected.

Witkowski pointed out that there are “four prominent characteristics in sports definitions: sports are physical, rule-based, competitive, and officially governed” (2012, 355). Based on her research on the shooter game “Counter Strike” attendance, eSports tournaments and conducted interviews, she drew a conclusion that eSports also have these four given sports characteristics in common. The crucial difference between eSports and traditional sports is location: the former takes place in the cyberspace, while the latter in the real world (Park, 2008). To which extent a video game has become important for modern society was indicated by the fact that it is even being advocated for video games to be included in the list of competitive disciplines for the Olympic Games as eSports (Miah 2016).

Playing games in traditional sports means that humans occupy the ‘physical world’ as in reality, that the body and physical activities of the player are still an important part of the overall sporting activity (Witkowski, 2012), but eSports happen in the ‘virtual world’, where humans always have to interact with a human-computer interface that connects their bodies to the electronic system. So, the crucial question is whether competition in video gaming can be characterized as eSports and whether the sport can be computer-mediated.

CONFRONTING TERMS: VIDEO GAMES, SPORT AND ESPORTS

Games have always been a companion of man. They are often the antipode of reality, and older than magic and ritual. It was long thought that a play was a means unto itself, so it was not a subject of scientific study. After the publication of the book “Homo Ludens”, by Johan Huizinga, in 1938, the phenomenon of the game became the subject of research from a new, philosophical and sociological point of view.

Huizinga concludes that “a game is older than culture” and defines its main elements: a game is always a voluntary activity, which represents a step out from real-life, from which it differs by location and duration; a game imposes its own rules, which are binding for all participants; it brings temporary perfection and creates a community that strives to maintain itself after the game is over (Huizinga, 1992, 9).

In the last quarter of the nineteenth century, sport was evolving in terms of more serious consideration of the game (Huizinga, 1992, 177), however, in modern society, sport has been increasingly distinguished from the general concept of a game and has become an element *sui generis*: it is no longer a game, but has not yet become a reality (Ibid, 178).

The development of technology and the Internet has enabled the emergence of new types of games. Video games are increasingly replacing traditional games and have a direct impact on the way that internet users spend their leisure time. The availability of platforms and technologies for the delivery of games is an important factor in the emergence of mass interest in video games.

Modern society is overflowed with media content due to the rapidly growing interest in video games and mass media in general (Appadurai, 1990). “Terms new media or digital media refer to media which use computer technology in the production process,

distribution and presentation of media content, while “a video game represents an object of culture, linked to the history and materiality, which consists of an electronic computing device and a software simulated game” (Galloway 2006, 1) asking the players to respect the rules set by the game designer, solve puzzles and achieve certain goals. Most video games give participants an opportunity to become winners, either by “disabling” all enemies, or by solving puzzles. The critical difference between the previous media and digital media, in this case, is that the interactive narrative of game play does not exist without players (Bogost, 2011).

Sport stopped being simply a game, since the aspect of competition inherent in it, exists in real life, in physical reality (Jeu, 1972). With the advent of new digital media, a game is being digitized and moved to the virtual space. eSports were developed through online networks and game software development (Jonasson & Thiborg, 2010), while the appearance of online network platforms and game software dissemination facilitated the process (Park, 2009).

Traditional sports are defined as “institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex physical skills by participants” (Coakley, 2001, 20). Traditional sports have four dominant characteristics: sports are physical, rule-based, competitive, and officially governed (Witkowski, 2012, 355), but they can be also defined as “an embodied, structured, goal-oriented, competitive, contest-based, ludic, physical activity” (Loy & Coakley, 2007, 4643).

Play is intrinsic to games as a medium, and the player's engagement with computers, or as Hutchins (2008, 852) points out: “eSports comprize gaming, computing, media and sport events all at once, including online game competitions”. eSports, as a new sport (Chae & Kang, 2011), have the following characteristics in common with traditional sport: fair competition among human players, rules, required mental and physical abilities, outcomes, etc. (Lee, 2005). eSports introduce a hybrid theoretical framework, bridging classical and the computer game theory, based on its shared focus, the competitive game play.

eSports can be linked not only to the competitive game play, but also to the strategy game because eSports could foster the importance of competitive computer games as a tool which can improve the process of strategic decision making. eSports are interpreted as playing competitive games according to generally accepted rules of leagues and tournaments on the Internet (Weiss, 2008), as “today strategies used by social media companies often look more like tactics... while tactics look like strategies...” (Manovich, 2009, 218). The incessant strategic and tactical feedback flow is dominantly present in the digital media (Hakalax, 2012).

While playing video games such as eSports, players form social relationships and develop their physical abilities related to socializing with other media consumers (Hamilton et al., 2014), suggesting a resemblance to an offline sport, since socializing with peers has been shown to be of great importance in traditional sports (Dietz-Uhler et al., 2000).

Western and eastern eSports have developed separately (Wagner, 2006). The eSports of western countries (United States and Europe) began with Local Area Networks (LAN's), and in contrast to the LAN parties of the West, Korean eSports are characterized as spectator sports (Lee & Ko, 2005) and developed as professional sport (Soumokil, 2009).

ESPORTS AND THEIR RELATION TO MODERN SPORT

Table 1 Comparison of Sport and eSport

Sport	eSports
<p>Definition: Traditional sports are defined as “institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex physical skills by participants” (Coakley, 2001, 6), but it can be also defined as “an embodied, structured, goal-oriented, competitive, contest-based, ludic, physical activity” (Coakley & Donnelly, 2001).</p>	<p>Definition: “eSports is a form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces” (Hamari and Sjöblom, 2016, p. 5). eSports is “gaming, computing, media, and sports event all at once and online game competitions” (Hutchins, 2008, p. 852).</p>
<p>Dominant characteristics: Traditional sports have four dominant characteristics: sports are physical, rule- based, competitive, and officially governed (Witkowski, 2012, 355).</p>	<p>Dominant characteristics: eSports has the following characteristics in common with traditional sport: fair competition among human players, rules, required mental and physical abilities, outcomes, etc. (Lee, 2005).</p>
<p>Physical: The competition of sport exists in the physical realm, the physical reality (Jeu, 1972). Traditional sports are defined as “institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex physical skills by participants” (Coakley, 2001).</p>	<p>Physical: eSports are “an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies” (Wagner, 2006, 2).</p>
<p>Rule- based: Sports are organized and are governed by rules (Guttmann, 1978).</p>	<p>Rule- based: eSports’ adherence to rules (Crawford & Gosling, 2009). eSports denote playing competitive games according to generally accepted rules of leagues and tournaments on the Internet (Weiss, 2008, 572).</p>
<p>Competitive: Sports pursuing competition in extreme space or standardized space by maximizing physical abilities (Chae & Kang, 2011, 93).</p>	<p>Competitive: eSports are seen as “a competitive way of playing computer games within a professional setting” (Wagner, 2006, 2) “The only way of winning (an eSports) match is to find and execute strategies that outperform the strategies of the opposing team” (Wagner, 2006, 3) within virtual space by maximizing mental factors such as judgment, concentration, or strategy (Chae and Kang, 2011, 93).</p>
<p>Officially governed: The commercialization of sport has made certain sports clubs, big power players, and that has enhanced their position in the governance of their sport (Colucci & Geeraert 2012). With traditional sports, governing bodies such as the IOC, the United States Olympic Committee (USOC), the National Collegiate</p>	<p>Officially governed: eSports are being institutionalized by several agencies where the rules are standard and formalized with governing bodies. eSports governing bodies are primarily owned by competing commercial enterprises. Currently, MLG, the Cyber athlete Professional League, and the International eSports Federation all exist in an effort</p>

<p>Athletic Association (NCAA), and the National Association of Intercollegiate Athletics (NAIA) work independently, sometimes competitively, and oftentimes in concert to allow for uniform rule development and standardization with the result of competitive structure. (Seth et al. 2016, 13-14).</p>	<p>to manage eSports (Seth et al. 2016, 14).</p> <p>On the world stage, the International eSports Federation has been created while in the United Kingdom, the UK eSports Association and in South Korea. The Korean eSports Association (KeSPA) has been created to standardize the sport in those respective countries. In the United States, this is being done by Major League Gaming (MLG) and eSports League (ESL) (Seth, 2016).</p>
<p>Socializing: Socializing with peers has been shown to be of great importance in traditional sports (Dietz-Uhler et al., 2000).</p>	<p>Socializing: While playing video games such as eSports, players form social relationships and develop their physical abilities related to socializing with other media consumers (Hamilton et al., 2014).</p>
<p>Game based: “Distinguishes sports reliably from games, since games may be played virtually or abstractly” (Connor 2011, 15).</p>	<p>Game based: eSports, which are also synonymous with gaming, include computing, gaming, media, and a sports event all wrapped up into one (Jin, 2010).</p>
<p>Space: Playing the games in the traditional sports means that humans occupy the ‘physical world’ as in reality, the body and physical activities of the player are still an important part of the overall sporting activity (Witkowski, 2012).</p>	<p>Space: eSports define electronic matches between individuals or teams in cyberspace with personal computers, game software, and Internet connections (Lee & Ko, 2005).</p>
<p>Accepted or not: Eichberg, & Loland (2010) sees modern sport as an inhumane and asocial practice. Kates & Clapperton (2015) highlighted a common perception that “the Olympics, and possibly sport in general should always be about physical virtuosity in a competitive environment” and eSports should not be included.</p>	<p>Accepted or not: eSports are officially accepted as a sport in about 60 countries (Witkowski, 2012). Since 2013 universities and colleges in the United States such as Robert Morris University Illinois and the University of Pikeville have recognized eSports players as varsity level athletes and offer athletic scholarships (Tassi, 2015).</p>

ESPORTS: PLAYERS AND GAMES

How popular eSports have become is indicated by the fact that playing video games is an activity in which one billion eight hundred thousand people on the planet participate (Skaugen, 2015), and can be performed both on an amateur and a professional level.

Website eSports earnings have been providing data related to eSports since 1998 to this very today (eSports earnings, 2017b). In the first year of eSports observation, the list indicates only two states, the US with 25 players and Canada with 3 players. Rankings were as follows:

1. Quake II with 16 participants and three tournaments.
2. Quake World with 12 participants and three tournaments.
3. Star Craft Brood War with 3 participants and one tournament.

The total prize pool was \$110,900.00.

In 2016, the list included an additional 108 countries and 14 347 registered active players. A total of 4094 tournaments took place, with the prize pool of \$ 94,915,274.33. The highest number of players comes from the US (3063), followed by China (1018) and South Korea (851). As for the European countries, most active players come from the United Kingdom (574), while Germany and France have equal number of players (535), followed by Austria (456). The former Yugoslav republics' sequence is as follows: Serbia (45), Croatia (27), Slovenia (22), Bosnia and Herzegovina (8), Macedonia and Montenegro are equal (1) (eSports earnings, 2016a).

Riot Games, (Santa Monica, California) reports that over 90% of players are male (Kuss & Griffiths, 2012) typically between the ages of 17-25. The lack of female professional players may be attributable to the hostile internet culture towards women (Taylor, 2012).

In theory, there are conflicting opinions on how to identify people who are dedicated to video games. Some theorists have argued that the "players are stereotypical young males, pale from too much time spent indoors and socially inept" (Williams et al., 2008, 995) and that video games are leading to a generation of antisocial, over-weight, unhealthy, and aggressive "mouse potatoes" (Kline et al., 2003). But, there is no evidence to suggest that those who play video games are far more obese, lazy, or withdrawn than their peers who do not play (Griffiths, et al., 2004).

The United States government now recognizes eSports players as professional athletes (Tassi, 2013). Robert Morris University in Pittsburgh became the first university to recognize eSports as a varsity sport supported by the athletics department and offer "gaming" scholarships (50% tuition and 50% room and board) for these "eSports athletes". More than \$500,000 in "athletic" scholarships was given out to the players/gamers (Wingfield, 2014). eSports players are in need of mental and physical abilities, in the same way as those participating in traditional sports (Lee, 2005), because eSports demand greater mental abilities than other sports (Chae and Kang, 2011).

In traditional sports, we have many different categories such as basketball, football, or volleyball. eSports are no different in offering players a variety of game categories. eSports take the form of organized, multiplayer video game competitions. Tournaments are live streaming of the ongoing competitions, while prize money and salaries are given to competitors.

The first grand-scale eSports event was held in 1981, for the arcade game 'Space Invaders'. The 'Spacewar' competition held in 1972 was the first eSports event ever held, the concept of which included a prize (Hope, 2014).

There are three titles (all of which are eSports) that lead the competitive games market in 2016. (eSports earnings, 2016b). The same order remained in the first four months of 2017 (eSports earnings, 2017a).

Table 2 eSports: Top 3 Games With the Highest Prize Money

Game title	Total prize	Number of Tournaments
DOTA 2	\$87.3 millions	637
LEAGUE LEGENDS	\$30.9 millions	1,752
CS:GO	\$21.4 millions	1,868

In Defense of the Ancients-DOTA 2 (created by the Valve Corporation 2013) the players are split into two competing teams (Radiant and Dire), each consisting of up to five players. Dota 2 is a multiplayer online battle arena (MOBA) video game in which two teams of five players compete to collectively destroy a large structure defended by the opposing team known as the "Ancient", whilst defending their own (McDonald, 2016).

League of Legends (created by Riot Games 2009) is a 3D, third-person multiplayer online battle arena (MOBA) video game which has two teams of five players. It is considered that this game contributed to the popularity of eSports (Bornemark 2013).

Counter Strike: Global Offensive CS: GO (Created by Valve Corporation 2012) is a multiplayer first-person shooter video game. The core details are: two teams of five play take turns to play each other as Terrorists or Counter-Terrorists, capturing or defending objectives, scoring kills, and earning in-game money to spend on better weapons and other equipment (CSGO, 2016).

CONCLUSION

Even though a part of the scientific community still has a dilemma whether eSports should blend with the traditional understanding of the sport, the fact remains that eSports is rapidly evolving and includes a growing number of players whose participation is close to 2 billion.

An analysis and definition of the main characteristics of sport and eSports indicated that, theoretically, there is no significant difference between these concepts, except in the characteristics of the space where sports activities take place, and the physical involvement of the athletes. The space in which sport activities take place, in the case of a traditional sport, is related to the real world, while eSports have found their arena in the cyber world. As for the physical involvement of athletes in the competition process, the status of those athletes who compete without leaving their chairs is challenged, in relation to those who actively use their physical strength.

eSports, as competition in video gaming, engages players typically between the ages of 17-25, predominantly male. The fact is that eSports activities are integrated with the media, but it is also true that the modern media changed all areas of human activity. Alongside the real world there is a parallel hybrid (virtual) reality. Due to the growing technical improvements that are available to humanity, we believe that the emergence of eSports was a natural evolutionary consequence. If our meetings with friends had been moved to the virtual world, the migration of games and sports was only a matter of time.

However, as eSports are still a phenomenon that has only recently come into the focus of academic exploration, we deem that it is too early to give definite conclusions whether eSports are actually a sport or "just" a competition in playing video games.

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UTICAJ VIDEO IGRE NA FORMIRANJE ESPORTA

Cilj ovog istraživanja je bio da se ispita uticaj video igre, kao forme digitalnih medija, na formiranje nove vrste sporta. eSport se događa u virtuelnom prostoru i ne oslanja se samo na fizičko biće učesnika, kao što je to slučaj u tradicionalnom shvatanju sporta, već podrazumeva interakciju čoveka i kompjutera. Rad se bavi diskursom savremene igre koja se odigrava u virtuelnom prostoru i koju teoretičari klasifikuju kao eSport. S obzirom na to da sport podrazumeva učesnike koji zauzimaju "fizički svet", dok su učesnici eSporta u "virtuelnom svetu", kao i na to da esportisti uvek moraju da koriste Human-Computer interfejs koji povezuje njihova tela u elektronski sistem, ključno pitanje na koje autori ovog rada nastoje da daju odgovor odnosi se na to da li sport može da bude elektronski i da li kompjuterski posredovane sportske aktivnosti imaju sličnosti sa tradicionalnim shvatanjem sporta.?

Ključne reči: *digitalni mediji, video igra, tradicionalni sport, eSport*