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Virtual(ly) Athletes: Where eSports Fit Within the Definition of "Sport"

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ABSTRACT

Electronic sports, cybersports, gaming, competitive computer gaming, and virtual sports are all synonyms for the term eSports. Regardless of the term used, eSports is now becoming more accepted as a *sport* and gamers are being identified as *athletes* within society today. eSports has even infiltrated higher education in the form of an intercollegiate athletic sport, as two university athletic departments have made eSports an official varsity sport where scholarships are provided to collegiate *eSports athletes*. Thus, the intertwining of eSports and university athletics brings into question whether eSports should be considered sport by broader society. This article provides a brief history of eSports, a further developed definition of eSports, and a comparison of eSports to traditional philosophical and sociological definitions of sport. The purpose of this article is to provoke thought on the academically accepted definitions of sport and debate whether eSports should be considered a sport. Attention will be given to the following components of sport: play, organization, competition, skill, physicality, broad following, and institutionalization.

KEYWORDS

Competitive gaming; cybersports; definition of sport; electronic sports; sport philosophy; video games

Introduction

Most people have never heard of eSports, "a catchall term for games that resemble conventional sports insofar as they have superstars, playoffs, fans, uniforms, comebacks, and upsets. … But all the action in [eSports] occurs online, and the contestants hardly move" (Segal, 2014, para. 6). Welcome to the world of competitive video gaming, also known as eSports.

Over 70 million people watch eSports over the Internet or on television globally (Wingfield, 2014a). One of the most popular eSport video games is *League of Legends* (*LoL*)—the fantasy combat strategy game which, in 2013, had over 70 million registered players, including 32 million monthly active players (Snider, 2013). "Since its debut in 2009, League of Legends has evolved from a small population of desktop computer warriors into a full-scale phenomenon" (Segal, 2014, para. 6). For example, in October

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of 2013, an *LoL* championship garnered up to 8.5 million simultaneous online viewers—the same peak viewership for that same year's decisive game of the National Hockey League's (NHL) Stanley Cup finals (Wingfield, 2014a).

Two prime reasons for eSports growth are increased accessibility of technology and access to elite competition. Heaven (2014b) noted:

> What's largely driving the esports boom is better videostreaming technology and faster internet connections, allowing fans to follow tournaments and their [favorite] players online. . .. Watching your [favorite] player talk you through their game is a unique attraction of esports. . .. If you had Usain Bolt giving an analysis of his own race, people would love that. (para. 10–11)

Furthermore, rather than simply spectating, it is now easier for amateurs to participate in eSports. Launched in June of 2014, Gfinity (Gfinity.net) provides online daily eSports competitions and awards almost $50,000 in prize money each month (Heaven, 2014b).

Video game publisher *Riot Games* of Santa Monica, California, produces *LoL*, with several hundred professional gamers on salary, most of whom practice up to 14 hours per day in order to stay competitive at the elite level (Segal, 2014). In 2014 it was cited that *LoL* had 67 million active monthly players globally, who spent $122 million playing the game (Segal, 2014). It appears the global market for eSports is strong.

The recent popularity of competitive video gaming has spawned from Asia. South Korea may be the most involved country; it even has a television channel devoted largely to eSports (Wingfield, 2014a). In October of 2014, more than 40,000 fans packed the outdoor soccer stadium used for the 2002 World Cup semifinals in Seoul to watch two teams of five players gaming—each sitting in front of a computer with mouse and keyboard—with three massive screens displaying the action at the *LoL* championship (Mozur, 2014). Western countries such as the United Kingdom have also come on board. In August of 2014, London's Copper Box arena hosted *G3*—the largest eSports event ever staged in the United Kingdom—where a $140,000 prize pot was split amongst the winning gamers playing the following video games: *FIFA 14* (soccer simulator), *StarCraft 2* (strategy game), *Call of Duty*, and *Counter-Strike* (both first-person shooter games) (Heaven, 2014b).

In the United States, the 2013 *LoL* championship was hosted in the Staples Center in Los Angeles, CA—site of previous National Basketball Association (NBA) and NHL finals—as the previous year's venue, which accommodated 10,000 fans, sold out (Snider, 2013). In April of 2015, Twitter erupted when the self-proclaimed world-wide leader in sports, ESPN2, aired over 2 hours of eSports on national television—complete with a live audience and professional commentators—as they broadcasted the "Heroes of the Dorm" championship match, where collegiate teams competed in the multiplayer online battle arena video game *Heroes of the Storm* (Schreier, 2015).

eSports in intercollegiate athletics and society

The massive popularity of eSports has even infiltrated collegiate athletics in the United States. In June of 2014, Robert Morris University (RMU, 2014) 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." Over $500,000 in "athletic" scholarships were doled out to its gamers (Wingfield, 2014b). University of Pikeville (UPike, 2014) in Kentucky followed suit in December of 2014, becoming the second university making eSports an official varsity sport. Additionally, the university club-based intercollegiate gaming league, Collegiate StarLeague (CSL, 2015), reports 511 active teams from the United States and Canada.

There is apparent value and several potential positive implications associated with the addition of eSports into intercollegiate athletics and other organized sporting events like the Olympic Games. The value of eSports comes in both societal and financial terms. Revenue generation, increased physical activity (PA), and improved participant diversity within intercollegiate athletics are all potential value-added areas associated with the incorporation of eSports into the pantheon of sport.

First, the global viewership and potential for revenue generation is present as the eSport industry, as of 2014, boasted a global viewership of over 71 million people (Llamas & Barberie, 2014). A new potential source of revenue in amateur sport, specifically intercollegiate or Olympic sport, could have a significant positive financial impact on an organization. Moreover, DraftKings, a major fantasy sports contest provider, is attempting to capitalize on the surge of interest in eSports by adding eSports to its fantasy sport lineup (Makuch, 2015). Some may argue that eSports is already a "fantasy" sport. Either way, eSports has potential for revenue generation.

Next, another possible positive implication embodied by the addition of eSports as a sport is based on the possibility to increase PA among American youth. In 2014, the Physical Activity Council confirmed a 6-year trend of sport participation among youth to continually be declining as well as the highest level of inactivity among American youth (Physical Activity Council, 2015). With the decline in PA numbers, eSports could potentially bridge the gap between sedentary activities and physical sport through motion-based video gaming. More will be discussed on the topic in the *physicality* section below.

Finally, including eSports within intercollegiate sports has the potential to improve participant diversity within athletic departments, particularly with regard to increasing the number of Asian student–athletes. Korean and Asian American players represent a large proportion of the eSports player demographics (O'Neill, 2014). Many athletic departments may be lacking within this demographic. Moreover, cultural diversity is a major aim for many higher education institutions as it fosters students' social growth and can provide increased access to higher education (Gurin, Dey, Hurtado, & Gurin, 2002).

Intertwining eSports and university athletics brings into question whether eSports should be considered a sport by broader society. Moreover, the U.S. government now recognizes eSports players as professional athletes, as players from around the world are now granted visas under that identifier (Tassi, 2013). While this may be more of a business decision as opposed to a philosophical one, it provides credence toward society starting to recognize eSports as a sport.

The purpose of this article is to stimulate discourse on the academically accepted definitions of sport and examine whether eSports should be considered sport. A brief history of eSports is presented, along with a further developed definition of eSports, as well as a comparison of eSports to traditional philosophical and sociological definitions of sport. Play, organization, competition, skill, physicality, broad following, and institutionalization are all components of sport which will be discussed.

Defining eSports

Understanding eSports is complex because of the relative novelty of the industry as well as the convergence of culture, technology, sport, and business (Jin, 2010). Unlike traditional sports such as hockey, baseball, and soccer, eSports is an interconnection of multiple platforms. eSports, which is also synonymous with *gaming*, is computing, gaming, media, and a sports event all wrapped up into one (Jin, 2010). Consequently, defining eSports is equally difficult.

It is imperative to first distinguish the difference between sedentary sport video games (SSVGs) and eSports. SSVGs are video games that emulate real-life sport but do not involve PA (Kim & Ross, 2006). Examples of SSVGs include, but are not limited to: *EA Sports UFC, NHL 15, MLB 14: The Show, NBA 2K15, Madden NFL 15*, and *FIFA 15*. All of the previously mentioned games center on professional sports leagues. On the contrary, eSports are not bound in definition by a specific genre of game. In fact, top eSport competition games are not related to real-life sports, but are more centered on fantasy worlds. *LoL* is described as a competitive game set in an imaginative world where players take the role of a "powerful Summoner" to call and control "brave Champions into battle" (GEForce, 2015).

In 2006, Wagner argued that eSports is too narrowly defined if it is merely seen as "a competitive way of playing computer games within a professional setting" (p. 2). Instead, Wagner developed a definition for 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" (p. 2). Wagner's expanded definition, though more encompassing, does not truly define eSports. One reason why the authors believe Wagner's definition does not completely fit is because of the option of the sporting activity to be mental *or* physical. It is clearly accepted that one characteristic which separates a game from a sport is the physical application of skill (Coakley, 2008; Suits, 2007). For the sake of remaining analogies to the eSports industry, the authors will consider the definition of eSports to be physical. However, the use of physical skill in eSports is often questioned and will also be discussed later this article.

Also, Wagner's (2006) definition leaves ambiguity in how eSports are played. The statement that people develop and train with the use of information and communication technologies in eSports leaves out the aspect of competition. Competition is important to include in the definition because the foundation of the eSports industry is centered on competition. Moreover, Wagner fails to define the platform in which eSports are played, which is online. This is important to include in the definition because the growth and viewership of eSports is largely attributed to the accessibility of the contests being online and interactively independent of location. Thus, for the purpose of this article, the authors define eSports simply as, "organized video game competitions."

Where eSports fit within the defining characteristics of "sport"

The debate whether competitive video gaming (i.e., eSports) can be considered sport dates back to at least 1999, when the Online Gamers Association (OGA) was launched by EuroGamer at the Sports Academy in London. Founder Mat Bettison was quoted as saying, "It won't be that long before eSports are covered on television in the same way

as traditional sports" (Gestalt, 1999, para. 24). The dispute turned sour when, in the same year, the English Sports Council denied recognizing the United Kingdom Professional Computer Game Championships as a sport (Wagner, 2006). Proponents of gaming believe that eSports mimic central features of sport, such as interpersonal competition, skill training and development, adherence to rules, goal attainment, and some involvement of coordination and agility (Crawford & Gosling, 2009). The controversy continues today as the inclusion of eSports into the Olympic Games is debated (Clapperton, 2015; Kates, 2015).

In order to determine whether eSports can be labeled sport, one must first define sport. The ensuing discussion will center on seminal definitions of sport from the fields of sport sociology (Guttmann, 1978) and sport philosophy (Suits, 2007). In accordance with these two definitions, Table 1. outlines the characteristics an activity must possess to be considered a sport in order to ascertain whether eSports qualifies as a sport. Each of the seven characteristics will be discussed separately.

Play

First, Guttmann (1978) asserted that play forms the foundation for all sports. This includes voluntary, intrinsically motivated activity which is performed for fun or enjoyment. With this characteristic, play is considered make-believe. Certainly eSport participants voluntarily play video games for enjoyment, fulfilling this characteristic of sport.

Often associated with the term *play* are games. Games have been defined as structured play (Coakley, 2008), and the common connection between the terms video games and eSports continues to equate eSports with gaming—a word which can be perceived to be on a lower level than sport. Moreover, a demarcation between virtual activity and sport are alluded to within day-to-day descriptions of video/computer games where even sport-themed video games are referred to as games, not sports (Hemphill, 2005).

To further complicate things, play and games are often associated with unreal non-seriousness (Hemphill, 2005)—terms juxtaposition to sport and synonymous with the video game phrase *virtual reality*. Moreover, play and games are frequently correlated to childhood where sociological accounts "place play, game[s], and sport on a continuum,

Table 1. Where eSports fit within the defining characteristics of sport.

Sport Characteristic	Sample Activity NOT considered a "Sport" due to Sport Characteristic	Do eSports Qualify?
A "sport" must…		
Include play (voluntary, intrinsically motivated activity)	Any activity not intrinsically motivating	Yes
Be organized (governed by rules)	Tag	Yes
Include competition (outcome of a winner and loser)	Solitaire (card game)	Yes
Be comprised of skill (not chance)	Dice games	Yes
Include physical skills—skillful and strategic use of one's body	Board games	Debatable
Have a broad following (beyond a local fad)	Clarkball[a]	Yes
Have achieved institutional stability where social institutions have rules which regulate it, stabilizing it as an important social practice	Hula-hoop	Debatable

Note. Characteristics 1, 2, 3, and 5 are adapted from Guttmann (1978), while characteristics 2, 4, 5, 6, and 7 are adapted from Suits (2007).
[a]See Seybert (2008).

where the playful freedom of childhood gradually becomes restrained, structured, and codified as games and, when fully institutionalized, becomes sport" (Hemphill, 2005, p. 196). If eSports are to be recognized as sport, competitive video gaming must be viewed beyond a juvenile game.

Organized

Suits (2007) asserts that sports are all goal-directed activities adhering to rules. Likewise, Guttmann (1978) states sports are organized and are governed by rules. In typical eSports tournaments, teams of four to five players compete multiple rounds across a certain time period (e.g., 1 hour and 45 minutes), playing a selected video game (e.g., *LoL*), where detailed rules and regulations specify tournament and match regulations with detailed instructions regarding game and server settings—teams play within a well-defined virtual environment. Players are required to adhere to these specific guidelines and structure of each video game in order to be successful. Undoubtedly, eSports are organized with rules.

Competition

All sports involve competition. Sports must include competition resulting in a winner/s and loser/s (Guttmann, 1978). In isolation, this may be termed a contest. "The only way of winning [an eSports] match is to find and execute strategies that outperform the strategies of the opposing team" (Wagner, 2006, p. 3). eSports include competitive video gaming which eventually leads to a winner/s.

Inherent within the concept of competition is the presence of an opponent, to which one will win, lose, or draw (Drewe, 2003). Without an opponent, there is no competition. Unquestionably, eSports involve competition, and often very intense competition. A noteworthy aspect of eSports is the ability to engage in competition with people throughout the world. While, at times, technical issues may hinder some participants from regions of the world with less developed computing infrastructures from successfully engaging in Internet-based competition, such issues will likely be overcome over time.

Through the defining characteristic of competition, justification is made that eSports are genuine sports and the participants are genuine athletes, not just players of a game (Electric Sports World Cup [ESWC], 2015). As stated on the ESWC website:

> What's the ESWC? The 21st century new sport. The Electronic Sports World Cup is a worldwide competition of video games, starting locally with national qualifying, to end with a World Final gathering all the cyberathletes and designed as a live show. The ESWC has grown as an independent and innovative project, representing gamers and online communities. ESWC federates companies as non-profit organizations all over the world; *all convinced that video games champions are genuine athletes, precursors of their generation* [emphasis added]. (para. 1)

Does this position hold merit? Are players of eSports competitions athletes? In Jeu's (1972) classic discourse "What is Sport?," he analyzed the nature of competition as it exists within sport. Jeu posited the type of competition which exists within sport is unique, and separates it from being simply a game. The concept of competition means overcoming one's opponent. Because sport exists within the realm of physical reality, to be successful

(i.e., to win) in sport equates to physically overcoming your opponent. Existing within the physical reality means one presses one's physical limits. And to press one's physical limits means pressing one's mental and emotional limits. To overcome your opponent means training through sweat—training through pain to acquire the repertoire of skills needed for victory. As Jeu (1972) stated:

> One can overpower others only by means of a domination of himself. If he is not master of his own body then it is out of the question that he master the opponent. Conversely, by means of the opponent one succeeds in stepping beyond himself both morally and physically. Through the opponent one goes beyond what he is. Without the challenge by the other and the possibility of victory, one would not put himself to the trouble of so painful an effort as that of intense physical conditioning. (p. 153)

Jeu's (1972) central thesis is that while sport and games both provide competition, sport is elevated from simply being a game precisely because the competition of sport exists in the physical realm, the physical reality.

Skill

According to Suits (2007), sports must involve skillful play where chance or luck is not the sole reason for winning. At a superficial level, it can be argued that it takes skillful coordination to play eSports as players manipulate buttons on a controller to effectively manage their on-screen avatar (i.e., an icon or figure representing the player in a video game). For example, when discussing the eSport game of *Counter-Strike*, Rambusch, Jakobsson, and Pargan (2007) noted: "a prerequisite for transforming it from a leisure activity to (semi) professional play is the design of the game; it affords competitive play by rewarding fast reflexes, good manual dexterity and excellent hand-eye co-ordination" (p. 159).

Still, Hemphill (2005) noted that skillful play in eSports should not be limited to technical dexterity utilized with a controller, but also includes sporting intelligence found in video gaming. Central to the notion of sport is to outsmart the competition—a component of eSports (Kates, 2015). To accomplish this, a successful eSports player must possess comprehensive knowledge and skills, "with game sense and (tactical and strategic) judgment to act effectively to settle the issue at hand or help the [player] solve the game problem" (Hemphill, 2005, p. 204). For instance, Heaven (2014b) noted the skill necessary to play eSports when describing the video game *StarCraft*, where one tries to defeat the opponent's army through "complex resource management in that you must continually generate the pieces at your disposal as you play" (para. 9)). He continues:

> To do as well as the pros, you must also achieve an extremely rapid rate of keyboard and mouse inputs. Some players carry out more than 300 such actions a minute, rising to 10 a second when up against it. Add in the need to think strategically and outwit your opponent by preempting their moves, and the top players start to look superhuman. (Heaven, 2014b, para. 9)

Historically, competitive gaming has involved first-person shooter games (e.g., *Doom, Counter-Strike*, etc.) or strategy war games (e.g., *StarCraft*) (Crawford & Gosling, 2009). More recently, eSports in North America utilize the strategy war games of *Dota 2, Starcraft 2, Call of Duty: Advanced Warfare*, and *Counter-Strike: Global Offense* (Major

League Gaming [MLG], 2015). Arguably, these games encompass Kretchmar's (2005) termed sport intelligence, where players solve problems and creatively perform. Hemphill (2005) coined this as "cyber-intelligent action" where eSport players exhibit game sense through skillfully linking avatar movement actions to game-posed challenges. Wagner (2006) noted, "teams that train for eSports disciplines will increase their competency in making complex strategic decisions at a high speed" (p. 4).

Thus, many acknowledge that cerebral dimensions of skill acquisition and performance are necessary to perform eSports (i.e., play video games) at a high level. For example, a study investigating rapid perception, decision making, and motor responding of 854,064 online computer video game players found a lawful relationship between practice amount and subsequent performance, as well as practice spacing and subsequent performance, indicating skill acquisition is inherent within video gaming (Stafford & Dewar, 2014). Other empirical evidence exists related to the benefits of video games on improving cognitive functioning. Granic, Lobel, and Engels (2014), conclude that, in adolescents, "specific types of video games seem to enhance a suite of cognitive functions" (p. 70), including enhanced creativity, problem-solving skills, and/or spatial skills, depending on the type of video game being played. Moreover, Toril, Reales, and Ballesteros (2014) concluded, "the overall meta-analysis [of 20 experimental studies] unambiguously revealed that training older adults with video games improves cognition" (p. 712) as video game training was shown to improve reaction time, attention, memory, and global cognition.

Moreover, sport-related video games have been suggested to be used in physical education for their potential benefits of cognitive-skills training, increasing sport knowledge (i.e., regarding player positions, field layout, tactics and strategies, etc.), acquiring language of sports, and enhancing teamwork in multi-player games (Hayes & Silberman, 2007; Jenny & Schary, 2014). Additionally, Rambusch et al. (2007), when discussing the cognitive skill required for an individual to successfully play on an eSports team (i.e., "clan"), noted that:

> [S]kills such as good communication and the ability to adapt to changes in the clan's line-up and the opposing clan's strategies and moves become increasingly important… When a player joins a clan their individual playing style has to match the clan's style as a whole. Players take on different roles with respect to the clan's line-up and the agreed-upon strategies and tactics. (p. 160)

To that end, in attempt to understand more about the essential skills needed for success in eSports, Red Bull has established its High Performance eSports Lab in Santa Monica, CA, to analyze the effect of stress, competition, and fatigue on concentration, reaction time, precision, and anticipation (Gaudiosi, 2015). Nonetheless, while eSports do require skill, common definitions of sport contend that the skill involved in the activity must be physical.

Physicality

Suits (2007) believes a distinguishing characteristic of sports from games is that, while sports are games of skill rather than chance, the skill must be physical. Guttmann (1978), Drewe (2003), and Tamburrini (2000) all concur and state that sport must consist of

physical contests. It is clear sport is physical at its core. But what is the nature of that physicality? What elevates a game to the level of a sport?

The comparison of the game of chess to the sport of basketball highlights the differences (Ousterhoudt, 1977). When playing the (traditional, non-digital) game of chess one must move a chess piece on the game board strategically to gain advantage over one's opponent. Because one physically grasps a chess piece and moves it to a chosen location, can the game therefore be considered a sport? Ousterhoudt (1977) contended it does not. Hemphill (2005) noted that due to the nature of sport, an essential characteristic is physical prowess, which distinguishes it from games. For a game to be elevated to the level of sport, the physical movement by the participant must be integral to the successful completion of the task. When playing basketball, the manner by which one performs a shot will have a direct impact on whether the shot is successful. A poorly executed jump shot will likely end with a resultant miss. Great physical skill is needed to be successful in basketball. In chess, the manner of the physical execution of moving the chess piece is incidental to success of the move. As long as the chess piece is moved to the correct spot on the board, how the participant chooses to do so has no consequence on the outcome. Likewise, arguably, *how* a button is pushed on a controller has no consequence on the outcome of an eSport competition. Therefore, for a game to be considered a sport, physical skill(s) must be present, and the successful execution of those physical skills must have a direct impact on the successful completion of the task.

Many games, however, even those of the table top variety, may require a precision of physical skill(s) for a player/s to be successful at the game. Consider the game of Jenga. During the game of Jenga, players take turns removing one block at a time from a tower built of 53 wooden blocks. The block, which was removed, is then placed on the top of the tower. As the game progresses, the tower becomes taller, but progressively weaker. Being a successful Jenga player requires great concentration, strategy, and precise fine motor coordination. Such precise physical skill can only be developed through months, even years, of practice. Is Jenga, then, a sport? Similarly, successfully directing an avatar through the mechanism of handheld controls, while engaging in eSports, requires precise physical skill. As with Jenga, to be a successful participant in eSports requires months, and likely years, of practice. Can eSports, then, be considered sports?

Fine motor versus gross motor skills

In order to distinguish more fully between fine motor skills (such as those used in Jenga and eSports) and the gross motor skills more frequently associated with athletic activity, these two classifications of skills will now be discussed. The level of movement precision differentiates motor skill classification. Gross motor skills, often present in sporting activities, include skills in which large muscle groups (e.g., quadriceps, hamstrings, gluteus maximus, etc.) produce movement (Haibach, Reid, & Collier, 2011). Locomotor skills are gross motor skills in which body transport—moving from point A to point B—is the prime objective. Examples of gross motor skills include kicking a soccer ball, performing a gymnastics routine, or jumping over a hurdle.

Conversely, fine motor skills involve precise movements with increased accuracy and control which utilize smaller muscle groups (Haibach et al., 2011). Skills in which one manipulates an object (e.g., video game controller) involves fine motor skills. Many sports require fine motor skills such as the intricate movement of the wrist when aiming a shot

with a racket in tennis or delicately manipulating the ball during a finger roll layup in basketball. However, most sports that involve fine motor skills primarily encompass gross motor movements (i.e., running, jumping, sliding, etc.). There are a few examples of commonly accepted sports which primarily involve fine motor movements. For example, of the 56 sports currently competed within the Olympic Summer and Winter Games (International Olympic Committee [IOC], 2015), archery and shooting are the only two sports which do not include high amounts of gross motor movements.

Moreover, Loy (1968) maintained that for an activity to be considered a sport, "the employment of developed physical skills and abilities within the context of gross physical activity" (p. 6) must occur. Gross PA means large segments of the body, or the entire body, is coordinated and integral to the successful completion of the task. Similarly, Hemphill (2005) has also noted sociological dynamics regarding masculinity within sport as "the most popular and lucrative sports (e.g., football) feature height, weight, strength, and speed, … [where] masculinity of this type can operate to define 'real' sport as sport that involves the most face-to-face aggression, power, and body contact" (p. 196). This type of physicality is obviously missing within eSports, but is replaced with virtual violence.

The contrast between physical reality and virtual reality could not be starker. As an example, consider the gymnast, who trains for years to gain control of one's entire physical being. The gymnast displays whole body precision in performing skills to gain victory on an event. The gymnast risks "real-world" physical injury with every skill performed. As the gymnast becomes more proficient, more advanced skills are performed, with an increase in physical danger as the skills become more complex. Contrast that with the gamer—using fine motor movement of the hands with a game controller to control an avatar in a virtual environment. With eSports it is the avatar that risks injury, and often is killed, but in the virtual world, and the avatar feels no pain. Neither does the gamer as the injury and death of the avatar are virtual and no consequences exist. The gamer simply begins a new game.

It is possible mainstream society sees video gaming as the antithesis of sport; empirical research has repeatedly found that sedentary screen time (e.g., seated video gaming) correlates to increased obesity and/or decreased exercise (Ballard, Gray, Reilly, & Noggle, 2009; Vandewater, Shim, & Caplovitz, 2004). To that end, the Centers for Disease Control and Prevention (2014) recommended that children accumulate 60 minutes of daily PA while reducing sedentary screen time (i.e., seated video gaming). Likewise, the U.S. Department of Health and Human Services (2014) recommends no more than 2 hours of daily television, videos, or video games for children ages 2 to 12 years.

As it currently stands, eSports involves sedentary video gaming. While some may argue that video games require levels of coordination and agility (Crawford & Gosling, 2009; Wagner, 2006), currently eSports only necessitate fine motor movements as a player manipulates a handheld controller. Many games, including those such as Jenga and eSports, only involve fine motor skills for successful completion, which does not meet the condition of physicality within common definitions of sport. Until eSports include motion-based video games (MBVGs) that track gross motor physical body movements within the game, the general public may not accept eSports as "real" sports.

MBVGs

MBVGs use motion-detection sensors and software to simulate physical movements made by the user and displays them via an onscreen avatar, typically without the use of a handheld controller (Jenny, Hushman, & Hushman, 2013). Frequently called Exergames, MBVGs may utilize motion-sensor flooring, infrared sensors, or cameras (Hemphill, 2005). MBVGs are played on systems such as the Nintendo Wii (Minamiku Kyoto, Japan), the X-box Kinect (Microsoft, Redmond, WA), and the PlayStation 4 (PS4) with motion camera (Sony Computer Entertainment, Tokyo, Japan). Oh and Yang (2010) defined MBVGs as any video game that stimulates PA, including balance, cardiovascular, flexibility, or strength exercise. Due to video gaming's massive popularity, MBVGs have been suggested as a tool to combat obesity and increase PA.

Energy Expenditure (EE) and MBVGs

Much of the MBVG research examines EE (i.e., calories burned) while playing. For health and fitness, the American College of Sports Medicine (ACSM) (American College of Sports Medicine, 2014) recommends at least 20 to 60 minutes of aerobic, neuromotor, and/or sports activities at least 3 days per week at a vigorous intensity, or 5 days per week at a moderate intensity. The ACSM defines vigorous intensity as *substantial* increases in breathing, sweating, and heart rate, with moderate intensity being *noticeable* increases in these attributes. One meta-analysis of 35 MBVG studies (Gao, Chen, Paso, & Pope, 2015) concluded that MBVGs increase EE, heart rate, metabolic equivalents (METs), VO_2 max, and PA from resting, while another meta-analysis of 27 MBVG studies (Sween et al., 2014) found a strong relationship between MBVGs and increased EE (up to 300% above resting levels), with the majority reaching moderate intensity—consistent with ACSM guidelines.

However, not all research indicates MBVGs increase EE as one meta-analysis of seven MBVG studies found no significant weight loss in children, concluding that MBVGs do not significantly impact EE (Bochner, Sorensen, & Belamarich, 2015). Moreover, all found empirical research which compared the intensity levels between MBVGs and the authentic version of the PA or sport suggests that while MBVGs clearly produce greater EE than rest and sedentary video gaming, EE during MBVGs is considerably lower than authentic versions of the sport or PA (Daley, 2009; Jenny & Schary, 2015; Jenny et al., 2013). Despite this, MBVGs have been recommended to be implemented by some as part of a quality P–12 physical education program (Sheehan & Katz, 2010; Wilson, Darden, & Meyler, 2010).

As one can see, the amount of physicality between sedentary video gaming and MBVGs is significantly different. However, no known leagues exist which involve competitive MBVGs. Currently, MBVGs are employed for entertainment or exercise, and not competitive eSports.

Virtual sports

Even descriptions of motion-based "sport-simulated" video games, such as golf simulators, are insinuated as less than a sport, as advertising can include taglines like, "as close to the real thing as possible" (Hemphill, 2005, p. 196). Hemphill (2005) refers to alternative sport realities as "cybersport" where "athletes" are electronically extended in digitally represented sporting worlds. Again, the oft used term "virtual" brings connotations of the cybersporting activity as not being real (i.e., artificial in substance). So it seems even if

sport-themed MBVGs were utilized in eSport competitions, some may still have trouble calling them sport, even if they include components of physicality.

SSVGs

As previously mentioned, SSVGs (e.g., *FIFA, Madden NFL, NBA 2K, MLB: The Show, NHL*, etc.) involve fictional participation in a sports contest through using handheld video game controllers and can encompass taking on the role of athlete, coach, general manager, and/or owner. Game play can occur face-to-face or online via an Internet connection. The premier example of a world championship involving SSVGs is the Fédération Internationale de Football Association (FIFA) Interactive World Cup (FIWC; FIFA, 2015). Recognized by the Guinness World Record's Gamer Edition as the world's largest gaming tournament, the 2016 FIWC tournament is expected to surpass the current record set in 2013 for the most number of gaming tournament competitors (2.5 million participants), as the competition will be available to individuals via both the Playstation 4 and Xbox (FIFA, 2015).

Currently, neither MBVGs, virtual sports, nor SSVGs enjoy the popularity and mainstream media coverage of war strategy or first-person shooter video games within the realm of eSports. In these role playing games, competitors, using personal computers, face off in singular or team battles in combat between fictional characters in a fantasy world. The largest intercollegiate eSports league, the CSL (500+ member-institutions, including RMU and UPike), focuses eSports competitions on *LoL, Dota 2, Starcraft 2, CS:GO*, and *Hearthstone* (CSL, 2015). Likewise, the High School StarLeague boasts 750+ member-institutions; competitions center on *LoL, Starcraft 2, Dota 2*, and *Hearthstone* (High School StarLeague, 2015). All these video games are streamed online and are war strategy or first-person shooter games.

In review, as it currently stands, for eSport to be considered sport it must be believed that high amounts of physicality are not required for an activity to be considered a sport. Kates (2015) calls for the definition of sport to be refined and not constricted "to the idea that sport is a physical contest in three-dimensional space that provides exercise and physical wellbeing for its participants while creating entertainment for its observers" (p. 28). In contrast, Clapperton (2015) highlighted a common perception that "the Olympics [and possibly sport in general] should always be about physical virtuosity in a competitive environment" (p. 28) and eSports should not be included. Presently, most eSports competitions center on sedentary war strategy or first-person shooter games. Future definitions of sport cannot center on physicality if eSports are ever to be accepted as sport unless MBVGs are commonly utilized within eSports.

Broad following

Suits (2007) contended that a sport must move beyond a game that is merely a local attraction or fad and must have a broad following. To that end, video game use within the United States is rampant. In 2013, retail computer and video game sales topped $15.4 billion and increased 11.1% from 2009 (Siwek, 2014). The average video gamer is 31 years old, nearly half are female, and 59% of all Americans play video games with the average household having two video gamers (Entertainment Software Association, 2014). Riley (2007) reported that children ages 2 to 17 play video games 6 to 16 or more hours per

week. Likewise, Gentile (2009) found that 88% of youth between the ages of 8 and 18 play video games three to four times per week with average weekly playing times of over 16 hours for boys and over 9 hours for girls. Compatibly, 83% of third- to 12th-grade students have at least one video game system at home, with 49% having one in their own bedroom (Rideout, Roberts, & Foehr, 2005). Undeniably, video gaming has a widespread following in the United States.

Specifically regarding eSports, a competitive gaming culture has emerged as teams, tournaments, leagues, prize monies, management, and sponsorship agreements are on the rise (Crawford & Gosling, 2009). eSports player Chen Zhihao's earnings since 2011 totaled $1.1 million, as he became the highest paid eSports player ever after his team won the $5 million prize at The International contest in 2014 (Heaven, 2014a). MLG (MLG, 2015) is the self-proclaimed "global leader" in eSports and operates MLG.tv—an online broadcast network of professional eSports with 9 million registered users worldwide. Over 2.4 billion hours of eSports video was viewed streaming live in 2013 (Heaven, 2014a). In 2014, MLG (2015) opened a 14,000 square foot eSport arena in Columbus, OH (MLG.tv Columbus Arena), joining the MLG studio in New York City, with plans for a 15,000 seat MLG stadium in Hengqin, China, by 2017—the world's first dedicated eSports stadium (Heaven, 2014a). Thus, eSports has a broad following.

Institutionalization

Demonstrating stability requires time. Institutionalization refers to an activity having a long history in which: (a) rules are developed and standardized; (b) learning of the game becomes formalized; (c) expertise develops; and (d) coaches, trainers, officials, and governing bodies emerge (Drewe, 2003; Suits, 2007; Tamburrini, 2000). Suits (2007) contended that an activity having a long history lessens the chance of "fad" activities coming to vogue, acquiring attention and (financial) support, then fading into oblivion. While the popularity of eSports is undeniable, stability in institutional organization and regulation are still unproven.

The importance of the development and standardization of rules cannot be understated. The standardization of rules allows for competition to occur from across a region and literally throughout the world, as has been seen with traditional sports (Drewe, 2003). With traditional sports, the development, standardization, and implementation of rules falls within the oversight of the governing bodies.

Because connectivity is based off the Internet, eSports have already flourished globally. The Electronic Sports League's (ESL) website in 2015 boasted over 5 million registered users, with 2 million being currently active in competition (ESL 2013). The ESWC annually hosts over 200,000 live spectators during their 5-day championship tournament in Paris, with over 1 million viewing worldwide over the Internet (ESWC, 2015). Simply the existence of such a large international eSports competitive presence would logically indicate the existence of well-developed governing bodies, overseeing rule creation and standardization, and competition. This has not been the case.

With traditional sports, governing bodies such as the IOC, the United States Olympic Committee (USOC), the National Collegiate 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. This has provided relative stability for the sports under these organizations. However, due to the fact that eSports is still in its relative infancy, the explosion of growth has resulted in several competing organizations developing championship events (e.g., The International, ESWC, World e-Sports Games, World Cyber Games, etc.). This poses several potential threats for institutionalization of eSports.

Collegiate eSports

Which organization(s) will oversee eSports at the collegiate level? As stated above, currently the NCAA and NAIA oversee traditional collegiate sport. Likely, expertise is lacking within these organizations to provide the understanding needed for governance of eSports. Moreover, several aforementioned competing eSports governing organizations are putting on championships and providing competition for participants. Legally, this may present a difficult issue for colleges embracing eSports. Under Title IX, in order for an activity to be considered a sport it must have coaches, practices, and competitions during a defined season and a governing body (which oversees the sport organization, post-season structure, and standardization and implementation of rules). In 2012, in a Title IX case, a federal appeals court upheld a district court ruling that competitive cheer was not a sport (Associated Press, 2012). The judge in that case declared that competitive cheer had the necessary characteristics to be considered a sport (i.e., physical skill, competition) but had not yet become fully institutionalized. As reported by the Associated Press in the federal appeals court the statement was the following:

> Like the district court, we acknowledge record evidence showing that competitive cheerleading can be physically challenging, requiring competitors to possess strength, agility, and grace. Similarly, we do not foreclose the possibility that the activity, with better organization and defined rules, might someday warrant recognition as a varsity sport. But, like the district court, we conclude that the record evidence shows that that time has not yet arrived. (U.S. Associated Press, 2012, para. 4)

Like eSports, in competitive cheer, multiple organizations are providing competitions and championships and this sport was deemed lacking institutionalization.

Governing body

eSports have become a lucrative enterprise. eSports' governing bodies are primarily owned by competing commercial enterprises. Currently, MLG, the Cyberathlete Professional League, and the International eSport Federation all exist in an effort to manage eSports. The competition to gain control of the eSports competitive structure will continue to escalate. As indicated with competitive cheer above, the existence of multiple governing bodies will be seen as problematic by the courts if a legal challenge to the inclusion of eSports as a varsity collegiate sport is presented. Likely, the courts will not recognize eSports as a varsity collegiate sport until governance is provided by the NCAA and/or the NAIA.

Currently, rule oversight, development, and implementation for competition lies within the various governing bodies or tournament organizers. Rules of play for the actual video games are defined by the video game manufacturer. Further, video game manufacturers produce new versions of their games on a regular basis. This leaves a situation where the rules become quite fluid—again problematic in light of the federal appeals court ruling.

Also, Hewitt (2014) noted that intellectual property ownership and copyright within eSports may become more problematic during the process of institutionalizing eSports, as the video game developers may become at odds with a governing body—potentially spurring court cases which may hinder growth or reform.

Moreover, the literature does not even agree upon a common term or spelling for eSports. Cybersports (Hemphill, 2005), gaming (MLG, 2015), electronic sports (ESL, 2013), and e-Sports (Kates, 2015) have all been used as variations for competitive video gaming (i.e., eSports). Moreover, while Crawford and Gosling (2009) noted the popularity of eSports coverage on television with dedicated channels such as *xleague.tv*, this channel no longer exists. A replacement, called Pulse Esports (2015), has stepped in, but at the time of publication this organization did not even have a working website, with visitors being redirected to a Facebook page (https://www.facebook.com/PulseEsports). The majority of eSports spectating occurs with online streaming video. It seems eSports is still finding its niche within society. While organizations such as MLG have assisted, more time is needed for eSport to demonstrate stability as a sport.

Conclusion

eSports are organized video game competitions. At the heart of the question of whether eSports should be embraced as sport is an understanding of the nature and historical definitions of sport. It appears that eSports include play and competition, are organized by rules, require skill, and have a broad following. However, eSports currently lacks great physicality and institutionalization.

While eSports include competition resulting in winner(s) and loser(s), the condition of competition may be seen as insufficient by some (e.g., Drewe, 2003) to be considered a sport, as winning in eSports does not entail physically overcoming an opponent. Some may argue that only a select few or majority of the aforementioned sport characteristics must qualify for an activity to be considered a sport, but high amounts of physicality are not currently required to play the present-day popular form of eSports (i.e., sedentary online video gaming) and this is a defining characteristic of sport for many. However, if MBVGs with high amounts of physicality are utilized within future eSports, this may provide the most credence for eSports to be considered a "sport" by the general population. Moreover, while signs are promising, more time is needed to demonstrate that the eSports following is stable and institutionalized. Undoubtedly, a refinement of the definition of sport, or the use of MBVGs, will need to occur before eSports are totally accepted by the majority of society as authentic versions of sport.

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