



A Comparative Study of the Growth of Electronic Sports in the World and the Important Global E-Sports Achievements

¹Basim Khudhair Abbas; ²Israa Asaad Jasim; ³Waseem Saad Nsaif

basem.khodhair@sport.uodiyala.edu.iq; IsraaAsaad@gmail.com; waseem@port.uodiyala.edu.iq

^{1,3} College of Physical Education and Sport Science – Diyala University - Iraq

² Presidency of Diyala University- Iraq

Abstract: The foundation of today's most popular esports titles such as League of Legends, Counter-Strike, and Overwatch is skill-based competition (Brockmann 2011; Jonasson and Thiborg 2010; Taylor 2012). These games are designed to reward those who master specific roles and acquire in-depth game knowledge. Nowadays, a growing number of players commit intensely to develop these skills and abilities in order to outperform others and fulfil their gratification needs (Murphy 2009; Llorens 2017). But this isn't where video games started off. There is a clear difference between single-player games and multi-player (esport) games in terms of their motivators. And while this may not be the most controversial thing you've read all day, it's still an important fact to acknowledge before diving into detailed explanations. For many, playing competitive video games is no longer just about having fun (Snaveley 2014). Recent ecosystem developments in esports have proven that players from all skill-levels seek competitive environments and are looking for new ways to improve their game play. For example, start-ups such as Gamer Sensei and DOJO Madness have raised significant amounts of funding since 2016. Their platforms help players improve their skills either by connecting them with mentors and trainers or by giving them access to game-specific analytical tools. There have also been numerous investments in online tournament platforms for non-pro players. Below are just some of this year's investments. All of these platforms give casual, amateur, and semi-pro gamers the opportunity to participate in competitive play and connect with other like-minded people. And while every year several large-scale offline tournaments fill out stadiums and draw mass media attention, the majority of e-sports is still happening online every day, away from the big screens (Jenny et al. 2017). E-sports is not just about the top 1%. An example of Riot Games' player storytelling. Furthermore, the continuous professionalization of the industry, including coverage of tournaments and storytelling around individual players, has undoubtedly played a major role in conveying the aspirations of many players (Seo 2013; Seo and Jung 2016). The industry seems to be growing around the world in virtually every aspect. More and more people play and watch e-sports games, an increasing amount of start-ups focus on providing competitive environments to non-pros, and companies produce storytelling content about the careers of young pros.

1. Introduction

The research of achievement and gratification systems in video games has become a popular and intriguing cross-disciplinary research topic especially over the last 10 years (Hoffman and Nadelson 2009; Heeter *et al.* 2011; Blair 2012). However, many of the studies within this field, such as the one by Hoffman and Nadelson (2009), focus on single-player games and their particular motivators. Unsurprisingly, these studies found that single-player gamers are mostly motivated by in-game challenges (e.g. quests) while their competitiveness is driven by the desire to achieve certain goals (predetermined by the game or set individually by the player). 100% - a game such as the Witcher 3 or Fallout, for example, can leave players satisfied and proud of their own performance. More interesting, however, are the different motivators in multi-player (esports) games. For instance, Murphy (2009) argues that preliminary research showed that theoretical approaches from traditional sports psychology can be used to examine different motivators in video games. The author therefore makes use of Nicholls' (1984, 1989) motivational framework which distinguishes between task-involvement and ego-involvement. Nicholls proposes that some athletes judge themselves and their abilities based on their own level of effort, performance, and personal improvement—this is called task-involvement. These athletes are likely to be more motivated by intrinsic factors linked to the nature of the task rather than by the actual outcome. Task-involved esports players will look at their past performance and effort in order to find new ways to improve their game. (By the way, single-player games also cater to players' task-involvement by challenging them, for instance, with difficult quests and timed missions. Ego-involved athletes and esports players, on the other hand, judge their own ability by outperforming others. They are motivated to improve themselves and beat others in-game because they want to feed their ego and receive praise from their peers. It may therefore be argued that ego-involved players will be more prone to hit 'slumps' or go on tilt. Failing to outperform their opponents challenges their view of themselves. Today's competitive esports titles encourage both task- and ego-involvement through in-depth performance statistics and leaderboards that let players compare themselves with others right down to the last detail. To be fair, the best of the best in sports as well as esports will most likely always be motivated by both, task- and ego-involvement. Thus, you will often find that players such as Bjergsen, Doublelift or TaZ are their own most vocal critiques. They continuously acknowledge and analyse their own flaws, and work relentlessly to improve themselves even if they already outperform the majority of their peers.—Judging on several interviews, I would even say that Doublelift in particular has made a significant shift from being majorly ego-involved to being more task-involved in recent times. In 2019 it is estimated that the total audience of esports will grow to 454 million viewers and that revenues will increase to over US\$1 billion.[4] The increasing availability of online streaming media platforms, particularly Panda.tv, YouTube, and Twitch have become central to the growth and promotion of esports competitions.[3] Demographically, Major League Gaming has reported viewership that is approximately 85% male and 15% female, with a majority of viewers between the ages of 18 and 34.[5] Despite this, several female personalities within esports are hopeful about the increasing presence of female gamers.[6][7] South Korea has several established esports organizations, which have licensed pro gamers since the year 2000. Recognition of esports competitions outside of South Korea has come somewhat slower. Along with South Korea, most competitions take place in Europe, North America and China. Despite its large video game market, esports in Japan is relatively underdeveloped, and this has been attributed largely to its broad anti-gambling laws which prohibit paid professional gaming tournaments. [8][9]

1.1 Esports specific motivators

Across the majority of studies that I read, the most prevalent motivators for playing esports games were found to be related to competition, challenge, and social interactions (Hoffmann and Nadelson 2009; Martončík 2015; Weiss 2011; Weiss and Schiele 2013; Seo 2016). Contrary to single-player games' motivators, 'fun' was more often than not found to be a result of winning in competitions rather than an end in itself (Weiss and Schiele 2013; Seo 2016). Yet, it has to be noted that there were significant methodological differences between these studies which may explain some of the inconsistencies in the findings. The three above-mentioned motivators, however, were consistently found as motivational themes throughout all studies.

1.2 Competitive drive and gratification in video games

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2. Classification as a sport

Labeling video games as sports is a controversial point of debate.[8] While some point to the growth in popularity of esports as justification for designating some games as sports, others contend that video games will never reach the status of "true sports". However popularity is not the only reason identified: some have argued that "careful planning, precise timing, and skillful execution"[64] ought to be what classifies an activity as sport, and that physical exertion and outdoor playing areas are not required by all traditional or non-traditional "sports". In a 2014 technology conference, when asked about the recent buyout of popular game streaming service Twitch, ESPN president John Skipper described esports as "not a sport – [they're] a competition." [9] In 2013 on an episode of Real Sports with Bryant Gumbel the panelist openly laughed at the topic. In addition, many in the fighting games community maintain a distinction between their competitive gaming competitions and the more commercially connected esports competitions of other genres. Video games are sometimes classified as a mind sport. In the 2015 World Championship hosted by the International Esports Federation, an esports panel was hosted with guests from international sports society to discuss the future recognition of esports as a recognized, legitimate sporting activity worldwide. In 2013, Canadian League of Legends player Danny "Shiphtur" Le became the first pro gamer to receive an American P-1A visa, a category designated for "Internationally Recognized Athletes". In 2014, Turkey's Ministry of Youth and Sports started issuing e-Sports Player licenses to players certified as professionals. In 2016, the French government started working on a project to regulate and recognize esports. The Games and Amusements Board of the Philippines started issuing athletic license to Filipino esports players who are vouched by a professional esports team in July 2017. [10] To help promote esports as a legitimate sport, several esports events have been run alongside more traditional international sport competitions. The 2007 Asian Indoor Games was the first notable multi-sport competition including esports as an official medal-winning event alongside other traditional sports, and the later editions of the Asian Indoor Games and its successor the Asian Indoor and Martial Arts Games have always included esports as an official medal event or an exhibition event up to now. Moreover, the Asian Games, which is the Asian top-level multi-sport competition, will also include esports as a medal event at the 2022 edition; esports around games such as Hearthstone, Starcraft II, and League of Legends were presented as an exhibition event at the 2018 Asian Games as a lead-in to the 2022 games. The 2019 Southeast Asian Games will include six medal events for esports.

3. Types of E-sports games

Esports are video games played in professional competitions. These games are played online so they require a good internet connection. The E-sport industry is productive and it is expected to grow more with the growing usage of the internet. Esports are classified into different genres. The genres include First-person shooter, fighting games, Real-time strategy, racing, sport games, and multiplayer online battle arena among many others. The multiplayer online battle arena (MOBA) is popular compared to the other genres because it has a high number of participants and viewers. The earliest games to be in tournaments were the fighting games. The real-time strategy games are competed on personal computers on the internet. The Real-time strategy games are popular since you do not have to move from your area to participate. Each of these genres has different games from which you can choose. Over the years, there are games that have been top rated multiple times and have remained at the top of the list constantly. Here is the list of games that have been top rated this year:

- **League of Legends**

This is a game developed by the Riot games and it was published in 2009. This multiplayer online battle arena game has been featured in tournaments like LoL tournament and Electronic Sports league season. It is free to play and it has prize pools of over 6 million US dollars.

- **Overwatch**

This game has multiple game modes, cool characters, and colorful levels. It is a first-person shooter game that many have attested that it is enjoyable. This game is successful because of several esports initiatives that it is involved in like the Overwatch world cup. You can check related to sports game here <https://www.esports.net/>

- **Counter Strike: Global Offensive (CS: GO)**

This game was launched in 2012 and since then it has been doing well because of its competitiveness in the esports circuit. It is part of a 1 million dollars prize pool competition known as the Eleague major. This game is the most popular esport grant watched and played by people especially in United Kingdom.

- **Starcraft 2**

It is a real-time strategy game, which was launched in 2010. This game is more popular in Korea compared to the western countries. The game has been hosted in several leagues like the GOMTV Global Starcraft 2 League, North American Star league, Team Liquid Star League, and Intel Extreme Masters.

- **Defense of the Ancient (DOTA) 2**

This game is a multiplayer online battle arena (MOBA) type of game. It is free to play and you choose one hero from more than 100 to help you in the battlefield and achieve victory for your team. This game has been featured in tournaments such as World Cyber games and DreamHack. The public debut of this game was in 2011 at The International.

- **Call of Duty: World War 2**

This first-person shooter game was initially played on Xbox. The game is now played on the play station consoles. Call of Duty is a series of games and World War 2 is more popular this year because of its exceptionally competitive gaming communities. Call of duty is featured in the Call of Duty League held annually in United Kingdom, North America, Australia, and Latin America.

4. Olympic Games recognition

The Olympic Games are also seen as a potential method to legitimize esports. A summit held by the International Olympic Committee (IOC) in October 2017 acknowledged the growing popularity of esports, concluding that "Competitive 'esports' could be considered as a sporting activity, and the players involved prepare and train with an intensity which may be comparable to athletes in traditional sports" but would require any games used for the Olympics fitting "with the rules and regulations of the Olympic movement". Two difficulties remain for presenting esports as an Olympic event according to IOC President Thomas Bach: that they would need to restrict those that present violent gameplay, and that there is currently a lack of a global sanctioning body for esports to coordinate further.[86] On the issue of violence, while Bach acknowledged that many Olympic sports bore out from actual violent combat, "sport is the civilized expression about this. If you have e-games where it's about killing somebody, this cannot be brought into line with our Olympic values." Due to that, it was suggested that the IOC would approve more of esports centered on games that simulate real sports, such as the NBA 2K or FIFA series. [11] The issues around esports have not prevented the IOC from exploring what possibilities there are for incorporation into future Olympics. During July 2018, the IOC and the Global Association of International Sports Federations (GAISF) held a symposium and inviting major figures in esports, including Epic Games' Mark Rein, Blizzard Entertainment's Mike Morhaime, and esports players Dario "TLO" Wunsch, Jacob "Jake" Lyon, and Se-yeon "Geguri" Kim, for these organizations "to gain a deeper understanding of esports, their impact and likely future development, so that [they] can jointly consider the ways in which [they] may collaborate to the mutual benefit of all of sport in the years ahead".[12] The IOC has tested the potential for esports through exhibition games. With support of the IOC, Intel sponsored exhibition esports events for StarCraft II and Steep prior to the 2018 Winter Olympics in Pyeongchang, and five South Korean esports players were part of the Olympic Torch relay. [13] A similar exhibition showcase, the eGames, was held alongside the 2016 Summer Olympics in Rio de Janeiro, though this was not supported by the IOC. Leaders in Japan are becoming involved to help bring esports to the 2020 Summer Olympics and beyond, given the country's reputation as a major video game industry center. Esports in Japan had not flourished due to the country's anti-gambling laws that also prevent paid professional gaming tournaments, but there were efforts starting in late 2017 to eliminate this issue. [9] At the suggestion of the Tokyo Olympic Games Committee for the 2020 Summer Olympics, four esports organizations have worked with Japan's leading consumer organization to exempt esports tournaments from gambling law restrictions. Takeo Kawamura, a member of the Japanese House of Representatives and of the ruling Liberal Democratic Party, led a collation of ruling and opposing politicians to support esports, called the Japan esports Union, or JeSU;[14] Kawamura said that they would be willing to pass laws to further exempt esports as needed so that esports athletes can make a living playing these sports. So far, this has resulted in the ability of esports players to obtain exemption licenses to allow them to play, a similar mechanism needed for professional athletes in other sports in Japan to play professionally.[9] The first such licenses were given out in mid-July 2018, via a tournament held by several video game publishers to award prizes to many players but with JeSU offered these exemption licenses to the top dozen or so players that emerge, allowing them to compete in further esports events.[15] The Tokyo Olympic Committee has also planned to arrange a number of esports events to lead up into the 2020 games.[9] The organization committee for the 2024 Summer Olympics in Paris were in discussions with the IOC and the various professional esports organizations to consider esports for the event, citing the need to include these elements to keep

the Olympics relevant to younger generations.[16] Ultimately, the organization committee determined esports were premature to bring to the 2024 Games as medal events, but have not ruled out other activities related to esports during the Games.[17]

5. Player exploitation

There has been some concern over the quality of life and potential mistreatment of players by organizations, especially in South Korea. Korean organizations have been accused of refusing to pay competitive salaries, leading to a slow exodus of Korean players to other markets. In an interview, League of Legends player Bae "Dade" Eo-jin said that "Korean players wake up at 1pm and play until 5am", and suggested that the 16 hour play schedule was a significant factor in causing burnout. [18] Concerns over the mental health of players intensified in 2014 when League of Legends player Cheon "Promise" Min-Ki attempted suicide a week after admitting to match fixing.[158] To combat the negative environment, Korean League of Legends teams were given new rules for the upcoming 2015 season by Riot Games, including the adoption of minimum salaries for professional players, requiring contracts and allowing players to stream individually for additional player revenue.[19] Players must handle their own treatments and carry their own medical insurance, which is opposite of the norm with professional sports teams. Since most esports play requires many actions per minute, some players may get repetitive strain injuries, causing hand or wrist pain. [20]

6. Economics

League of Legends Championship Series and League of Legends Champions Korea offer guaranteed salaries for players. [21] Despite this, online streaming is preferred by some players, as it is in some cases more profitable than competing with a team and streamers have the ability to determine their own schedule. The International tournament awards US\$10 million to the winners, however teams that do not have the same amount of success often do not have financial stability and frequently break up after failing to win.[22] In 2015 it was estimated by SuperData Research that the global esports industry generated revenue of around US\$748.8 million that year. Asia is **the leading esports market with over \$321 million in revenue, North America is around \$224 million**, and Europe has \$172 million and the rest of the world for about \$29 million. Global esports revenue is estimated to reach \$1.9 billion by 2018. The number of female viewers has been growing in esports, with an estimated 30% of esports viewers being female in 2013, an increase from 15% from the previous year. However, despite the increase in female viewers, there is not a growth of female players in high level competitive esports. The top female players that are involved in esports mainly get exposure in female-only tournaments, most notably Counter-Strike, Dead or Alive 4, and StarCraft II. All-female esports teams include Frag Dolls and PMS Clan.

7. Data analytics and machine learning

With the growing popularity of machine learning in data analytics, esports has been the focus of several software programs that analyze the plethora of game data available. Based on the huge number of matches played on a daily basis globally (League of Legends alone had a reported 100 million active monthly players worldwide in 2016[23] and an average of 27 million League of Legends games played per day reported in 2014[24]), these games can be used for applying big-data machine learning platforms. Several games make their data publicly available, so websites aggregate the data into easy-to-visualize graphs and statistics. In addition, several programs use

machine learning tools to predict the win probability of a match based on various factors, such as team composition. [25] In 2018, the DotA team Team Liquid partnered with a software company to allow players and coaches to predict the team's success rate in each match and provide advice on what needs to be changed to improve performance. [26] [27]

8. Conclusion

Esports, short for “electronic sports,” transforms online gaming into a spectator sport. The experience is similar to watching a professional sporting event, except that instead of watching a physical event, spectators watch video gamers compete against each other in a virtual environment. If it’s hard to imagine why anyone would watch somebody else playing a video game, just think about how enjoyable it is to watch LeBron James or Steph Curry play basketball. Just as traditional sports fans enjoy watching top athletes perform at the top of their craft, the same is true of those who watch top video gamers compete. This industry includes not only traditional sports-related games like NBA2K and FIFA, but also—and more notably—games such as League of Legends, Counter-Strike, and Dota. As we’ll discuss later, individual players can either stream themselves playing to earn money or join larger organizations to compete for large cash prizes. The players can engage with their fans in a variety of ways including social media, live-streaming platforms, and in-person at tournaments. On the other side, fans can watch and follow their favorite teams compete in regional and global tournaments. Many technology platforms, services, events, analytics platforms, and substantial investor capital surrounds this ecosystem as it continues to grow. When we look at esports and its global traction, we are immediately reminded of the rise of social media. As users adopted social media, companies like Facebook, Instagram, and Snapchat each saw high traction (globally, just like with esports) but did not come up with effective monetization strategies until further down the road. Today, as you know, these companies are now worth billions. we see this as analogous to the global adoption of esports in that esports currently has an audience of 385 million, yet only generates ~\$1 billion in revenue. Therefore, this is why we believe esports is possibly one of the best investment opportunities of the coming decade. From an investment perspective, though esports revolves around competitive gaming, it is ultimately a digital media and entertainment investment opportunity. The challenge and opportunity ahead involves monetizing this user and viewer base, which is still in its incipient stages. The chart below displays video gaming’s surprising rise over Facebook, Snapchat, and Instagram when it comes to daily minutes spent.

References

1. **Ben Popper (30 September 2013). "Field of Streams: How Twitch Made Video Games a Spectator Sport". *The Verge*. Retrieved 9 October 2013.**
2. **Global esports revenues to top \$1 billion in 2019: report". *Reuters*. 12 February 2019. Retrieved 21 May 2019.**
3. **Major League Gaming reports COWS GO MOO 334 percent growth in live video". *GameSpot*. 14 November 2012. Retrieved 8 October 2013.**
4. **John Gaudiosi (28 April 2012). "Team Evil Geniuses Manager Anna Prosser Believes More Female Gamers Will Turn Pro". *Forbes*. Retrieved 8 October 2013.**
5. **John Gaudiosi (29 July 2012). "Taipei Assassins Manager Erica Tseng Talks Growth Of Female Gamers In League Of Legends". *Forbes*. Retrieved 8 October 2013.**

6. **Andrew Groen (14 May 2013). "Why gamers in Asia are the world's best eSport athletes". *PC World*. Retrieved 7 October 2013.**
7. **Jump up to: a b c d Yuji Nakamura; Emi Nobuhiro; Takako Taniguchi (18 January 2018). "Shinzo Abe's Party Wants Japan Ready for Video Games in Olympics". *Bloomberg Businessweek*. Retrieved 19 January 2018.**
8. **eSports, sport or business?". *Johan Cruyff Institute*. Archived from the original on 18 September 2017.**
9. **Emanuel Maiberg (6 September 2014). "ESPN Says eSports isn't a Sport -- What Do You Think?" *GameSpot*. Retrieved 9 November 2014.**
10. **Sheldon, David (22 October 2017). "Philippines Officially Recognizes eSports As a Real Sport". *Casino Org*. Retrieved 22 October 2017.**
11. **Orland, Kyle (13 March 2018). "Violent video games not welcome for Olympic esports consideration". *Ars Technica*. Retrieved 14 March 2018.**
12. **Frisk, Adam (19 July 2018). "Video gaming as an Olympic sport? IOC hosting eSports forum to better understand competitive gaming". *Global News*. Retrieved 20 July 2018.**
13. **Dominaco, Michael (20 July 2018). "Overwatch Players Involved In Talks With Olympic Committee To Discuss Esports Opportunities". *IGN*. Retrieved 20 July 2018.**
14. **Zaccardi, Nick (3 November 2017). "Esports event in PyeongChang before Olympics supported by IOC". *NBC News*. Retrieved 5 November 2017.**
15. **Nakamura, Yuri; Furikawa, Yuki (10 July 2018). "You Can Now Officially Play Esports for Money in Japan". *Bloomberg L.P*. Retrieved 13 July 2018.**
16. **"Paris Olympic bid committee is open to esports on 2024 Olympic program". *Associated Press*. 9 August 2017. Retrieved 9 August 2017.**
17. **Morris, Chris (10 December 2018). "Video Games Won't Be Part of the Paris Olympics". *Fortune*. Retrieved 10 December 2018.**
18. **Frank 'Riot Mirhi' Fields (5 November 2014). "KOREA'S PRO EXODUS MAY SPELL BAD NEWS FOR THE GAME'S TOP REGION". *Riot Games*. Retrieved 9 November 2014.**
19. **Owen S. Good (18 March 2014). "Top Korean League of Legends player fixed matches before attempting suicide, says eSports league". *Polygon*. Retrieved 9 November 2014.**
20. **Travis Gafford (27 October 2014). "Major changes heading to Korea for the 2015 season". *OnGamers*. Retrieved 9 November 2014.**
21. **Luke Winkie (31 May 2016) the eSports Injury Crisis Vocativ, Retrieved 3 June 2016.**
22. **Caymus (11 November 2014). "Official 2015 Season LoL eSports League Reform Plan Announced (Final Version)". *News of Legends*. Archived from the original on 18 May 2015. Retrieved 28 April 2015.**
23. **Dota 2 is the richest of the big esports, but its players are the poorest". *The Daily Dot*. 13 August 2014. Archived from the original on 18 May 2015. Retrieved 2 May 2015.**
24. **Gaudiosi, John (28 October 2015). "Global esports revenues are nearing 2 billion". *Fortune*. Retrieved 9 November 2015.**
25. **Jump up to: a b c d Smith, Noah (6 April 2018). *The Washington Post* [Esports bookmaking? Globally, it's already a billion-dollar gambling industry Esports bookmaking? Globally, it's**

already a billion-dollar gambling industry] Check |url= value (help). Retrieved 8 June 2018. Missing or empty |title= (help)

26. *Wolf, Jacob (2 June 2017). "Nevada governor approves esports betting bill". ESPN. Retrieved 8 June 2018.*

27. *HH Saleh, WS Nsaif, LT Rashied. Are an Electronic Sports Phenomena will become a Sport for the Future? Some of Opportunities and Risks. The First International Scientific Conference, Faculty of Physical Education and Sports Sciences, Diyala University, April 2018.*