Peng, Yun (2021) *The role of gender in Chinese esports culture: an empirical research of women's participation in esports in China.* PhD thesis.

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The Role of Gender in Chinese esports Culture: an empirical research of women's participation in esports in China

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**Submitted in fulfilment of the requirements for the
Degree of Doctor of Philosophy**

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March 2021

Abstract

This thesis investigates women's participation in esports in China and the role of gender in esports culture. By referring back to the way the gender gap been explored in other game studies, this work concentrates women's preferences, motivations and difficulties they met in participating in esports. In order to carry out convincing and reliable discussions, this empirical research draws its data from a questionnaire with 252 responses, six focus group interviews with a total number of 39 players and 10 in-depth interviews with industry professionals. The fieldwork looks at both women's participation in esports as general players and their participation in the esports industry. By analysing primary data, this research looks at how women's participation in esports intertwined with the esports culture, even the broader game culture. Additionally, this thesis makes efforts to illustrate how the role of gender been formed in the esports culture.

Start from participating in esports as a general player, this research reveals five core difficulties that influencing women to play esports games, including technology engagement, in-game skill master, gender stereotypes, players' previous game experience and the Chinese game history and policies. Opposite from the difficulties, this thesis presented women's motivations and preferences of playing esports and emphasizes that women's motivations for playing esports are multiple and dynamic. In detail, social interaction, achievement, immersion and obtaining career development were identified to be attractive elements. This thesis further presents discussions of how mobile esports managed to attract women and why the mobile esports should be noticed as an important dimension of understanding players. Apart from participating in esports as general players, the last part of this thesis discusses women's participation in the esports industry, including areas of professional esports play, esports online streaming and esports commentary. This work reveals the masculinity of the culture becomes more obvious in these areas. In general, there is a narrowing down the gender gap in esports play that largely benefited from the development of mobile esports. However, the gender gap in esports as a whole remains to be notable and is particularly obvious in the esports industry. This thesis argues the esports culture shows a strong masculine

tendency, which largely result from the problematic gaming culture, women absent from PC esports and the gender gap in the esports industry. The masculinity in esports culture in turn influenced women's participation in esports negatively. The gender gap in esports is neither because women are not interested in competitive games, nor because they are incapable of playing complicated games. It is the masculinity in esports culture and the masculine hegemony in the esports industry that strengthens the gender gap and related stereotypes in this area. As a result, the increasing number of women players are still outside the core of the esports culture.

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Acknowledgement

Author's Declaration

The work presented in this thesis is the original work of Yun Peng unless stated otherwise in the text. This thesis has been composed by the author and has not been submitted in whole or in part for any other degree. The author carried out this thesis at the University of Glasgow under the supervision of Professor Timothy Barker and Professor Raymond Boyle during the period October 2016 to March 2021.

Chapter 1

Introduction

Esports and women players

The world of esports[1] has developed significantly over the past decade. By 2019, esports revenue had reached $1.1 billion per year and 'its vigor has attracted brands and companies across every industry' (NewZoo, 2019, p.4). In 2016, the annual revenue of the industry was approximately $ 493 million (NewZoo, 2017a). In other words, market revenue for esports has doubled within three years. Moreover, according to the data reported by NewZoo (2019), esports audiences have reached $453.8 million by 2019. It is obvious that esports is developing on a notable scale and manages to attract a considerable number of players.

The rapid development of esports attracts scholars to pay attention to this type of online gaming likewise. The majority of current esports research is paying attention to very fundamental topics; they ponder over valid definitions for the term 'esports' (Hamari & Sjöblom, 2017; Jenny et al., 2017), its relationship with other sports (Lee & Schoenstedt, 2011), the development of professional esports (Parshakov & Zavertiaeva, 2015; Holden et al, 2017). Existing research has established fundamental knowledge of this rapid developing game genre. It is only very recently that scholars have begun to focus on the gender issue in esports (Kim, 2017; Ruotsalainen & Friman, 2018; Ruvalcaba et al., 2018). However, apart from emphasising the gender gap in esports participation, women's participation in esports as a whole remains under-researched and unclear. In fact, gender issues have received considerable critical attention from academic researchers in the broader field of video games studies. When mentioning

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[1] At present, common ways of spelling esports include: Esports, eSports and esports. This thesis chooses 'esports' because the trend in both academia and the industry is to adopt this form.

video games, a classic description is 'a gamer, male, young (and) anti-social' (Arnaud, 2010). It vividly illustrates that the gender gap in video games has developed into a stereotype and suggests women are marginalized group in this realm. Even though recent game studies and reports provide evidence to support the idea of a more equally distributed interest for video games amongst genders (Williams et al., 2006; Yee, 2006; ESA, 2016), debates associated with gender issues in video games are still ongoing.

One of the most typical examples is the event of #GamerGate, which has attracted both scholars' and industry's attention towards the gender issue in participation in video games and the role of gender in the video game culture. In 2014, a harassment that initially targeted at the women game designer named Zoe Quinn started. Zoe released the game Depression Quest in 2013; it is an interactive fiction game with the theme of depression. It is not an esports game, but the GamerGate controversy reflects the conflict between the masculine identity of video game culture and women in this area. After the release of *Depression Quest*, game media outlets expressed positive comments on it. However, in 2014, Quinn's former boyfriend posted materials online to claim that Quinn had unethical relationships with industry professionals in the game media, a controversy that became known as GamerGate. Supporters of GamerGate believe Quinn manipulated comments on the game *Depression Quest* by sleeping with industry professionals, although though there is no evidence to prove Quinn manipulated comments and some industrial professionals also denied the allegations.

However, by using the hashtag of #GamerGate to participate discussion within the broader video game website, this event quickly developed into a movement of 'cyberbullying and cyberaggression' (Chatzakou et al., 2017, p.1285) focuses on women who work in video game industry, such as game designer, journalist and critics. The gamer community believes the video game media is becoming a tool of feminism and women who benefit from media coverage do so because they have unethical relationships with industry professionals. Moreover, the influences of GamerGate have expanded to the field of game study. As Chess and Shaw (2016) point out, the game community is accusing 'DiGRA (Digital Games Research Association) of …using games to push a social justice agenda' (p.22), such as promoting critical gender studies associated with video games. Meanwhile, scholars who have or have had relationships

with DiGRA 'became the target of harassment for the seemingly unforgivable offense of writing about sexuality, gender, race, or other categories of difference and video games' (Chess & Shaw, 2016, p.22). The atmosphere of players holding a hostile attitude toward female staff and topics related to gender clearly shows that toxic masculinity exists in video game culture (Chess & Shaw, 2015; Massanari, 2017; Mortensen, 2018). This event demonstrates that the increasing number of women in video games (ESA, 2016) cannot support the idea of the gender gap in this area is narrowing down. Women are facing considerable difficulties in participating in video games. Moreover, those difficulties appear to have significant relationships with the game culture.

What is worth to be noted is that the gender issue in some typical game genres is particularly obvious. The competitive game genres, such as esports, have been highlighted as hard-core games, within which women are marginalized (Ruvalcaba et al., 2018). Gender gap in this field remains significant and little knowledge of this phenomenon has been presented within current studies. As a woman who plays *Defense of the Ancients* (*Dota 2*) (Valve, 2013) for more than five years, I experienced gender discriminations and gender harassments in playing this esports game. Even though the majority of my experiences of playing *Dota 2* is joyful, however, those negative experiences pushed me to think about the role of gender in esports culture and its influences on women. Thus, this thesis makes effort to look at gender issues in esports participation.

When looking at issues of gender in esports, current studies and market reports highlight that the majority of esports players are men (Hamari & Sjöblom, 2017). Empirical data (Lee & Schoenstedt, 2011) shows that women constitute a relatively low ratio of participants (only 16.1% of responses are from women). At the same time, a professional esports market report suggests 71% of esports audiences are men (NewZoo, 2017a). Beside playing as a general player, recent research starts to concentrate on the problem of the absence of women in professional esports offline leagues (Ruvalcaba et al., 2018). The data appears to be in accordance with research outcomes presented by previous game studies. It shows that men remain the majority of esports players. Considering the persistent gender gap in video games, illustrated in the discussion

above, the initial question for this research project arises: Do women have less interest in esports because they prefer casual and social games, as suggested by gender stereotypes?

However, what is interesting is that data of mobile esports participation is challenging the males' dominance in esports play. For instance, 54% of players of the game *Honor of Kings* (*HoK*, Tencent Games, 2015) are women (iResearch, 2017). *HoK* is one of the most popular mobile esports games to this date. Obviously, discussions mentioned above show that understandings of women esports player are open to debate. Considering esports is developing rapidly in recent years, it is not surprising to find that current research is not able to provide a comprehensive understanding of the role of gender in esports yet. The ambiguous understanding of women players invited the question of what attracts women to participate in esports and why mobile esports is particularly attractive for them?

It is easy to note the increasing number of women in mobile esports is challenging the idea of esports as a male-dominated field. However, it is necessary to point out women's participation in esports is much more complex than their participation in other video games. First, competitiveness, which is a core feature of esports play, has been said by previous research to be a less preferred element for women (Kim, 2017). Meanwhile, previous game studies describe women as more likely to be casual and less skilled players (Hayes, 2005; Bouca, 2012; De Schutter, 2011). Thus, their participation in esports is still worth discussing. Secondly, as mentioned above, mobile esports games have managed to attract a considerable number of women. This phenomenon opposes stereotypes of both esports and video games more widely as male-dominated. Thirdly, the development of professional offline tournaments in esports constitutes a new segment for the study of esports participation. In 2018, 737 major events were carried out and created more than $ 54 million in ticket revenues (NewZoo, 2019, p.7). However, women were absent from core esports offline tournaments, even though an increasing number of women are taking part in this game genre (Ruvalcaba et al., 2018). Additionally, the development of online streaming, which allows viewers to watch a live feed of another person playing a game, is promoting diversity in the esports industry (Matsui et al., 2020).

When looking at the development of esports all over the world, China becomes one of the most representative regions of esports. According to Newzoo's report (2017b), the total number of esports enthusiasts reached 72 million in China, making up 38% of the total number worldwide. China's considerable share in the total number of esports players could help this study to collect representative data to meet its research aims. Moreover, the esports industry in China is developing considerably, and this is important for this research since interviews with industrial professionals are vital for gathering necessary data. Tencent esports (2017), which belongs to the Chinese internet giant Tencent Holding Ltd. (Tencent), reported that the Chinese esports industry represented 15% of esports' total global annual revenue in 2016, making it the second-largest market. Furthermore, the popularity of mobile esports, such as *Honor of Kings* (*HoK*, Tencent, 2015), has attracted more than 200 million players in China (JiGuang, 2017). In addition, China contributed more than one third of mobile esports' global revenue in 2018 (Niko Partners, 2018). It is clear that China has undergone conspicuous development in the esports industry, particularly in mobile esports.

Moreover, the gender gap in Chinese esports appears to be particularly worthy of exploration. Women only occupied 19% (Tencent esports, 2017) of all esports players in 2017, but this increased to 24.3% in 2018. The gender gap in Chinese esports is obvious, even though a slight increase in female participants is detectable. For the objective of this research, the unbalanced gender ratio makes Chinese esports an ideal case study. Moreover, the increasing number of female esports players could provide more information on how women's participation in esports has improved. In short, Chinese esports has shown considerable development within the worldwide market, and the typical gender gap among Chinese esports players is anticipated to help this study in its exploration of the role of gender in esports culture.

Women's participation in esports appears to constitute a complicated phenomenon as a whole, with unbalanced levels of participation in different sections of what we designate collectively as 'esports'. Given that the past few years have seen rapid developments in women's participation in mobile esports, it is vital to carry out empirical research by focusing on esports players. This thesis investigates the gender

gap in esports from a cultural perspective rather than a biological one. This approach has rarely been used in existing esports studies. Understanding how esports culture influences women's participation may help narrow down the gender gap in both amateur and professional participation in esports. This research is anticipated to encourage women to identify esports as an activity which they are able to engage with on an equal footing with their male counterparts. At the same time, exploring women's participation in esports provides insights to improve diversity in participation in esports more widely, including queer and transgender participation.

Boundary of esports in this thesis

Academics started to pay attention to esports from the early 21st century. One of the most controversial topics in existing research is the definition of esports. Currently, both academic research and industry reports are contributing to a unified definition of esports. However, in order to carry out clear and valid research into women's participation in esports, it is necessary to set bounds to the definition of the term esports in this thesis. This section summarizes the discussion on the definition of esports and what elements of it have been retained for the use of the term in this thesis.

The primary form of esports can be found in the popularity of arcade games and its local events in the 1980s (Snavely, 2014). Snavely (2014) suggests arcade games provided the cognition of interpersonal competition in video games. Moreover, local events of arcade games highlighted the 'potential for mass participation in video game competitions in the future'. This argument articulates some of the basic features of esports, such as competitiveness, mass participation and the organization of tournaments. With the development of the internet, participation in competitive games stepped into the online era and shows different features comparing with the arcade game era. The formation and development of esports are intertwined with the evolution of the internet. Therefore, scholars commonly locate the origins of esports in the late 1990s (Wagner, 2006). At this stage, esports emerged as a form of business within the world by taking advantage of the internet. The internet made it possible to 'connect players together from different physical locations' and 'play (…) together in team-based battles' (Snavely, 2014, p.19). As the research on esports develops, the definition of esports has

become one of the core issues in the field. Explorations of the definition of esports mainly concentrate on two aspects. On the one hand, the relationship between traditional sports and esports became a key focus for scholars to explain what esports is (Jonasson & Thiborg, 2010; Hamari & Sjöblom, 2017). On the other hand, a small but significant body of research investigated the phenomenon of esports by focusing on its connection with media (Kaytoue et al., 2012; Hutchins, 2008).

Starting with the relationship between sports and esports, the common view regarding esports as a type of sport is widely accepted by the public. For instance, Elmezeny and Wimmer (2015) suggests that 'portraying gamers (in esports) as athletes is a very common occurrence within the (gaming) documentary' (p.9). Generally, features shared by those two activities are key issues for scholars to define esports as a type of sport. In academia, there is a concern with defining esports as a type of sport since esports players' performances are not 'measured via either their physical prowess of finesse' (Hamari & Sjöblom, 2017, p3). A significant sign in the traditional recognition of sports is the level of physical performance. Witkowski (2012) argued that even though esports activities happen within the computer-mediated environment, they still 'highlight the variety of (player's) physical performances. However, it is not the most significant theme in this research to draw out a strict definition of esports as a type of sport or not. This is because of the consideration of when the term 'sport' was created, the invention of the internet might not have been thought of, let alone the phenomenon of what we call 'esports' today. The grounds for looking into the relationship between sports and esports is that their similarities could help define our understanding of esports. To be specific, it helps this study in focusing on important topics such as competitiveness, strategy and aggressions that are shared between esports and sports. However, it is necessary to mention that I focus on the phenomena of esports alone but not on its relationship with a wider field of sports scholarship.

Among the publications debating whether esports is to be regarded as a type of sport, Wagner (2006) presents one of the earliest formal definitions of esports by referring to Claus Tiedemann's (2004) definition of sports. He believes that esports has a natural connection with traditional sports, with regards to competitiveness and the desire to win. He defines esports as 'an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies'

(p.4). This definition suggests the basic feature of esports is to take advantage of 'information and communication technologies'. However, as Hamari & Sjöblom (2017) point out, it is too general to describe the complicated phenomenon of esports because 'when considering any current sport, many aspects of it are computer assisted or computer mediated' (p.211). Thus, Wagner's definition of esports is not accurate enough to be the definition of esports for this research. The other problem about Wagner's definition is that the term 'information and communication technologies' are too narrow to present the 'complex mixture of both physical and electronic aspects in esports' (Hamari & Sjöblom, 2017, p.4). Based on Wagner's definition, Thiborg (2009, p.7) argues that esports 'fulfil the broad definition of modern sport as a physical, competitive and institutionalized activity'. In a later article (2010), Jonasson & Thiborg suggests that the problem of using definitions of sports to describe esports is that 'such classifications may well include or exclude too many activities' (p.7). Indeed, it may be premature to define esports as a type of sport since the formalization of its rules and regulations remains to be improved. For instance, issues around stimulants as performance enhancing drugs which is strictly regulated in traditional sports league, is only now emerging in esports (Holden et al., 2017).

Those studies highlight that esports is a competitive activity and shares basic features with traditional sports. Moreover, the establishment of professional offline leagues further promotes the professionalization of esports play. However, rules of playing esports are loose when comparing to traditional sports play. This problem is particularly obvious within professional esports. Thus, rather than define esports as a sports activity, a more reliable description is that esports is both a sport and a competitive computer game (Thiborg, 2009). In another words, esports is an activity sharing features of both traditional sports and computer games.

Away from discussions about the relationship between sports and esports, a small number of studies has paid attention to the relationship between esports and media, especially digital media. By analysing the role of media in the evolution of modern societies, esports can be viewed as organized competitive gaming combining broadcast media and sport (Hutchins, 2008). He argues esports is 'an emergent technosocial[sic] phenomenon' (p.13). This argument somewhat echoes to Hamari & Sjöblom's (2017) description of esports as 'the input of players and teams as well as the output of the

esports system are mediated by human-computer interfaces' (p.213). As mentioned above, the discussion of whether esports is a kind of sports activities is open to debate. However, its relationship with media technology can provide this research clues of setting a boundary of esports.

Esports appears to have tighter integration with digital media, due to the fact that, esports activities are based on the human-computer interfaces. A more detailed example was presented in Kaytoue et al.'s (2012) research on professional video game live streaming. Their research indicates the main difference between esports and traditional sports is the fact that the majority of esports events are live streamed through the internet only. Furthermore, the members of the esports community are 'acquainted with social networks … and web platforms' (Kaytoue et al., 2012p.1). These studies indicate the possibility that esports could not be regarded as more complex than a new type of sport. Primarily, esports play is embedded in a digitally mediated environment that shaped by human-digital technologies interfaces. This feature differentiates esports from traditional video games and illustrates their relationship with digital media. Moreover, the spreading process of esports content is through the digital media, such as playing online and watching live streaming online. This feature indicates that esports culture is sharing the same context with online game culture to a large extent.

In summary, although esports started with arcade games, they came into their own with computer technologies, the development of the internet, digital media and mobile devices, such as smartphones or tablets. esports' connection with sports reveals the key feature of esports is competitiveness. The connection with human-computer interface and the internet shows esports is deeply rooted in online game context. In order to carry out clear and valid research of women's participation in esports, this thesis set the boundary of esports as *internet based multi-player competitive digital games, which have clear definition of win and lose.* This boundary highlighted the relationship between esports and sports and the relationship between esports and digital games. What needs to be pointed out is that this boundary presents the basic feature of esports, particularly features of current popular esports games, such as MOBA games and FPS games. Moreover, the second part of the definition ensures that the participants involved in the fieldwork have a clear understanding of what 'esports' refers to in the context of this thesis. However, it is inevitable that this definition will not enough to

provide a highly comprehensive description of esports. This is because this definition has been accepted within esports studies and can ensure that this research focuses on esports games.

When I was carrying out the fieldwork, spheres of esports explored in this research is more diverse. To be specific, this research initially pay attention to the phenomenon of playing esports as a leisure method. At this stage, I focus not only on PC esports games but also the context of mobile esports due to the notable development of mobile esports games. As mentioned above, these are two of the most common ways for players to participate in esports at present. Moreover, as discussed in this section, the professionalization of esports and esports online streaming are developing into important components of esports participation. Therefore, this research pays particular attention on the side of the esports industry including professional esports play, esports commentary and esports online streaming. At this stage, a wide range of participants are involved in this research, include professional esports players, esports live streamer, esports audiences, esports commentators and so forth. In sum, this research pays attention to a diverse range of participation in esports instead of looking at esports as a kind of leisure activity alone.

Theme of the thesis

As mentioned above, esports are developing into a notable phenomenon and women are becoming an important demographic of esports players. Considering this, it is necessary and pressing for both the esports industries and academia to understand women players objectively and comprehensively. Thus, the core purpose of this study is to explore women's participation in esports. Specifically, this research aims at exploring how women's participation interacts with the current esports culture. Moreover, by exploring women's participation, this thesis makes a further effort to illustrate the role of gender in esports culture. In other words, where the participation of women in professional esports play is concerned, the thesis is anticipated to find how the role of gender is shaped by the industry.

In the actual research process, this research looking at esports specifically in China due to its notable development in esports. Rather than emphasizing gender differences from biological perspective, this research aims at investigating women's participation from a cultural perspective. As previous video game research suggested, cultural elements, such as gender stereotypes, greatly influence women's participation in eSport (Paaßen et al., 2017). Therefore, analysing the role of gender in esports culture is the base of this research to understand women in esports. In this process, three Research Questions are adopted to meet the research aim of this thesis.

Research Question 1*: What difficulties do women encounter when participating in esports?*
A subquestion to this is: *Are there gender gaps and gender stereotypes influencing women's behaviors?*

Research Question 2: *How does esports attract women?*
  A subquestion to this is: *Is their participation in esports different from participation in traditional video games?*

Research Question 3: *What is the situation of women's participation in professional esports play, and, at large, in the esports industry?*

The first and second Research Questions should make an important contribution to understand what attracts women to or deters them from esports play. Through fieldwork for original data collection, this thesis provides empirical evidence, on one hand, to illustrate the lived experiences of in esports. On the other hand, evidence is provided to explain why women take part in esports or do not. The fieldwork concentrates on Chinese esports participants particularly because of the notable development of esports in this country. The empirical results will be compared to, motivations and dislikes, as evidenced by research in existing game studies. With the basic understanding of women esports player, this thesis seeks to explain women's attitudes towards esports from a cultural perspective rather than emphasizing the biological difference between men and women. Thus, this thesis provides more reliable and comprehensive understanding of women esports player.

In addition, as mentioned above, professional esports play is one of the core features differentiating esports from other video games. However, what is not yet clearly known is the importance of gender in this profession. Thus, Research Question #3 pays specific attention to the situation of women's participation in professional esports play and the esports industry. To be specific, it includes the following questions: a) Is there a gender gap in the esports industry? If so, why does this gender gap occur? b) What is the role of gender in the esports industry and how does it influence esports culture? What needs to be mentioned is that the scope of the esports industry discussed in this thesis is limited to professional esports play, esports commentary and esports online streaming. Finally, this thesis investigates what attracts and deters women from esports.

Through exploring the aspects presented above, this research contributes to the fundamental understanding of the growing community of women esports players. This is not only meaningful for filling in the blanks in current knowledge of the gender gap in esports; I would also like to emphasise that exploring women's participation in esports should be understood as part of improving the diverse participation in esports. For a long period, video games have been identified as male-dominated activities by academic scholarship and the public. This idea is not only reflected in the marginalisation of women in this field, but also in the marginalisation of other minority groups, such as queer women and transgender players. Thus, through improving our understanding of women in esports, the present perspective is anticipated to provide further research clues to improve diversity in esports participation more widely.

Terminology in this thesis

In the detailed discussion, this thesis adopts the terms 'women' and 'men' to describe different groups of players involved in this study. In fact, gender terminology has been discussed by scholars for a long period. As Eliason (2014) states, shifts occurred in gender-related terminology in the past century and influenced academic research (p.163). One of the gender classifications widely adopted by scholars is male and female, but this has been argued to place too much emphasis on the sexual binary and ignore the diversity of gender identity (Gherovici, 2017). The debate on the usage of 'men/women' versus 'male/female' has existed in both academic research and the public discourse for a long time. Looking at existing game studies, using the terms 'men'

and 'women' is the trend for current game studies involving gender (Lucas & Sherry, 2004; Taylor & Witkowski, 2010; Ruvalcaba et al., 2018). In the realm of esports, there is a trend of using the terms 'men/women' when research deals with gender (Rogers, 2021; Ruotsalainen & Friman, 2018). The concern around using 'men/women' involves using this phrase as an adjective, particularly referring to 'women' when referring to women, but using no such adjective when referring to men, who are implicitly considered the default. This is common to see in traditional sports studies, such as 'women professional boxers' (Halbert, 1997) and 'women's professional soccer' (Giza et al., 2005). This usage also happens in esports research. In Rogers's work (2021), the terms 'women gamers' and 'women players' are used. Moreover, Ruotsalainen and Friman (2018) use terms like 'women esports athletes' to describe those players participating in esports on the professional level. In this thesis, I mainly use the terms 'women' and 'men' to describe different groups of players. Moreover, this thesis uses 'men/women' as adjective words, such as women streamers, women players and women professional players.

Moreover, since gender is a complex topic in the context of video games, it is necessary to distinguish gender-related terms in this study. Specifically, the gender issues discussed in this thesis include the gender gap in esports participation, conflicts between the increasing number of women and the masculinity in esports culture, gender discrimination and harassment aimed at women, and the misunderstanding of women players. Before discussing the complexity of women's participation in esports, it is inevitable to note the difference between terms like 'harassment', 'discrimination' and 'objectification' based on gender in this work. Even though gender-based discrimination and harassment have long been noted by scholars, there is confusion in the use of these two terms. A common idea is that gender-based harassment is a form of expression of gender discrimination (Cohen, 2004; Antunovic, 2019). In recent esports research, Holden (2020) discusses a wide range of types of gender-based harassment in the context of esports and found a majority of those experiences involve obvious conflicts between men and women during game play, such as rape threats and crude comments made by players. However, such distinctions may ignore gender conflicts that are expressed through comparatively indirect forms. For instance, women participants in this research reported experiences of male teammates relegating them to

supporting roles rather than core roles in gameplay. This kind of experience is a typical form of gender discrimination; however, it hardly qualifies as harassment. Thus, referring to Rospenda and Richman's (2005) work on experiences of discrimination and harassment, the term 'gender harassment' used in this thesis can be described as direct 'poor interpersonal treatment' (p.179) in playing esports. At the same time, gender discrimination in this thesis refers to unequal treatment in term of opportunities to play esports.

Additionally, this thesis adopts the term 'objectification' to describe a specific form of gender discrimination in esports online streaming. Objectification of women is intertwined with gender discrimination and gender harassment. However, the term 'objectification' should be understood more specifically. In media studies, objectification of women commonly refers to the 'sexual objectification of women's bodies' (Gill, 2008). In the area of online game streaming, scholars adopt this term to describe the phenomenon whereby men concentrate on women streamers' appearance rather than their game play (Nakandala et al., 2017; Ruvalcaba et al., 2018). In this work, gender-based objectification particularly refers to the phenomenon of men focusing on casual content and women streamers' appearance in online streaming.

Organization of the thesis

Research outcomes for this thesis have been organized into four main chapters to provide explanations on women's participation in esports and its relationship with esports culture. After this introduction to the research in Chapter 1, Chapter 2 then contextualizes the research by providing background information on existing studies of women's participation in video games and the development of esports. On the one hand, esports is a kind of digital games while gender issues have become a well-established topic in traditional game studies. Thus, research outcomes of current video game studies are able to provide guidance for this research. Moreover, while limited attention has been paid to gender issues in esports, reviewing the existing game studies scholarship focusing on gender issues will improve the validity and reliability of research outcomes. On the other hand, as mentioned previously in this introduction, the esports industry is

becoming increasing diverse. Thus, reviewing the development of esports industry is necessary for this research since it can provide detailed research directions to meet the aim of this research. In detail, this chapter reviews women's preferences and motivations in participating in video games. Meanwhile, difficulties deterring women from playing video game area were also reviewed. Additionally, through reviewing existing work on esports, this chapter discusses the importance of adopting direct participation, professional esports play and esports online streaming as three of the core dimensions to explore women's participation in this field.

To illustrate how the data is gathered in this thesis, Chapter 3 focuses on research methodology. A mixed-method approach was employed which includes a questionnaire, in-depth interviews and focus group interviews. In turn, this improves the validity and reliability of research outcomes. This research collected both quantitative data and qualitative data. The questionnaire aims at collecting quantitative data for both men and women esports player. Moreover, it aims to examine the extent to which current knowledge about women game players is valuable in the field of esports. In-depth interviews and focus group interviews are adopted to provide qualitative data for this research. In-depth interviews were also carried out to communicate with game industry professionals. Interviewees include esports players, esports commentators, offline tournament staff and individuals occupying important positions in game production, such as team organizer of esports offline leagues. It aims at exploring knowledge of gender issues in esports from the industry perspective. On the other hand, focus group interviews involve both men and women esports player. The core objective of focus group interviews is to investigate players' experiences of gender associated issues in the playing process and the attitudes, feelings and strategies they adopt when facing gender issues while playing. This research is mainly been carried out in China. In detail, the questionnaire of this research is published in Chinese through Chinese survey platform. Other participants, include both focus group interviews and in-depth interviews, are all Chinese esports players and industrial professionals in China.

This is in consideration of the notable development of esports in China, which could be an ideal case for this research to focus on. The development of esports in China is notable within the world, particularly in area of mobile esports and online streaming. Moreover, it is worth to note that Chinese digital game development has experienced a

difficult period since Reform and Opening Up in 1978. It is until 2014 that there remain strict policies of digital game development in China. This unique background has shaped a comparatively conservative attitude towards digital games among Chinese public. Such background deterred women from video games particularly. The detailed discussion of Chinese game history and related policies are presented in Chapter 4. However, China managed to be one of the most notable country for esports development and attracted a notable number of women in mobile esports. For instance, Honer of Kings has attracted 200.1 million of players in 2017 and 54% of them are women (iResearch, 2017). On the one hand, the rapid development of Chinese esports, particularly mobile esports, makes it interesting and meaningful to focus on Chinese women's participation in esports. On the other hand, the large number of women playing esports in China makes it possible for this research to collect enough data to meet the research aim.

Chapters 4 to 7 present key finding of this work and focuses on how those findings managed to meet the research objective. Chapter 4 looks at difficulties met by women in esports games. Discussions presented in this chapter mainly focus on amateur esports players but not professional players. Through analysing quantitative data collected from the questionnaire, Chapter 4 evaluates the extent to which engagement with technology, in-game skill mastery, gender stereotypes and players' previous game experiences influence women's participation in esports negatively. Moreover, the last section of this chapter sheds light on the Chinese game history and polices, particularly the policy of ban of console games and game devices in 2000. This is mainly due to responses of the fieldwork are largely composed by Chinese players. At the same time, the Chinese game history is typical due to Chinese history and game policies. This research revealed that video games have been understood as harmful activity by Chinese public at the beginning of the 21st century. Such Connotations influences women's relationship with esports and bring about the problem of women players' lack of experiences in playing video games before they come to esports. This result further highlighted the importance of taking reginal history and policies into consideration in the process of carrying out fieldwork in game studies.

In contrast with Chapter 4, Chapter 5 is concerned with women's preferences and motivations when playing esports. Social intercourses, achievement, immersion and

achieving career developing have been concluded to constitute four major motivations for women to play esports. In the first section of this chapter, analysis and discussions aims at proving social intercourse as a leading motivation. On the one hand, it is because the women participating in this research appeared to be particularly motivated by social intercourses. On the other hand, esports shows strong features favouring socialization, in that it can provide abundant social interactions for players. The second section in this chapter discusses what features of esports provide women with a feeling of achievement and how it stimulates women' participation. The third section of this chapter seeks to understand how esports enables players to immerse themselves in the game. Moreover, this chapter illustrates how women feel immersed in playing despite a comparatively low level of in-game skill mastery. This result contradicts the idea that a certain level of in-game skill mastery is the key element for players to obtain immersion in playing video games (Sweetser & Wyeth, 2005; Qin et al., 2010; Cairns et al., 2014). The last section of this chapter focuses on the how the desire to obtain career development stimulate women to play esports games. Since there is an increasing number of women joining the esports industry, this motivation appears to be influential.

Findings presented in Chapter 4 and Chapter 5 aim at providing answers to Research Questions #1 and #2 directly. However, with further analysis of the data collected in this research. I found that mobile esports plays a significant role in attracting women. Thus, Chapter 6 discusses women's participation in mobile esports specifically. It is inevitable to mention that mobile esports manage to attract women by reducing negative influences exerted by the difficulties presented in Chapter 4. Moreover, this chapter looks at the social function of mobile esports and argues that mobile esports is becoming a social platform for the young generation rather than a simple online game platform. What needs to be noted is that mobile esports not only attracts women, its strong social function equally attracts men. The last section of this chapter presents reflections on how mobile esports influences the role of gender in esports culture. Since there is little study paying particular attention to mobile esports, let alone gender issues in this area, findings presented in this chapter are extremely meaningful to provide comprehensive understanding of women. This chapter identifies mobile esports as a new and significant realm for further esports studies.

Chapter 7 is the last chapter to present findings within this thesis. The main theme covered in this last finding chapter is women's participation in the esports industry. Findings are concentrating on professional esports play, esports commentary and esports online streaming. Data involved in this research mainly comes from in-depth interviews with industry professional and few summaries of esports market reports. In contrast with the increasing number of women in general esports play, the gender gap in professional esports play remains considerable. Core esports offline leagues are still dominated by men. Through further exploration of women's participation in esports online streaming, this chapter presents how women's participation has been improved in this area. However, current studies indicate there are serious gender discriminations exist in esports online streaming (Nakandala et al., 2017; Ruvalcaba et al., 2018). Thus, this chapter also displays considerations on how gender issues in the esports industry shape the role of gender in esports culture. Furthermore, this chapter discusses how the role of gender in esports industry influences women' participation in general esports play process.

To finish off, Chapter 8 ties together the core findings of this research. On the one hand, this chapter discusses how those findings answer each research question and how they contribute to the research theme. On the other hand, this chapter ties together findings of this thesis to illustrate a) the situation of women's participation in esports; b) how the esports culture represents women; c) how women's participation in esports intertwined with esports culture.

Chapter 2
Literature Review

Introduction

While esports has developed into one of the most influential and popular genres of online gaming over the past few decades, a persistent gender gap has been suggested to exists in the esports world. Data suggests that in the broader context of online gaming, the gender gap is narrowing. According to the report '*Essential Facts about the Computer and Video Game Industry*' (ESA, 2016), women account for more than 40% of all online players. However, despite the narrowing gender gap in online computer games, as mentioned in the Introduction, the gender gap in esports remains significant. Moreover, the number of studies focusing on gender issues in esports play is limited; women's participation in this area is significantly underexplored.

Because esports have their roots in video games, studies on women's participation in video games in general can be turned to for research clues. On the one hand, one of the most direct ways to understand the gender gap in this field is by investigating women' preferences, motivations and dislikes regarding participating in video games. Previous research highlights that social interaction and communication is the primary motivator for women to take part in video games (Taylor, 2003; Carr, 2005; Hayes, 2005; Yee, 2006; Williams et al., 2009). The social function has been described as enabling players to interact with others in either in-game or out-game circumstance (Bryce & Rutter, 2003b) and has been frequently mentioned as a motivating factor for women. The motivating influence of social interaction has been understood to be gendered, with women particularly motivated by it (Heeter et al., 2009). At the same time, violence and competitiveness have been identified as less attractive traits for women (Kafai, 1996; Bryce & Rutter, 2003b). On the other hand, several lines of evidence have revealed other difficulties women meet when participating in digital games, such as technology engagement (Yates & Littleton, 1999; Bryce & Rutter, 2003a), access to

games (Schott & Horrell, 2000), in-game skill mastery (Carr's, 2005; Quaiser-Pohl et al., 2006) and self-confidence (Terlecki et al., 2011). In addition, other research has explored the relationship between women's participation and video game culture from ideological perspectives; those studies provide a considerable amount of literature on gender discrimination and gender stereotypes in video game culture (Miller & Summers, 2007; Kirklan, 2009; Taylor, 2009; Vanderhoef, 2013). Those studies indicate that it is necessary and appropriate to investigate women's participation in esports through the lens of the influences exerted by the esports culture.

However, the current research outcomes are insufficient to provide an understanding of women's participation in esports. This is mainly because women's participation in esports is different from their participation in other video games because of the specific features of esports. On one hand, esports is a highly competitive activity that involves a high level of skill mastery. Given the uniqueness of esports within the context of video games, women's participation cannot be comprehensively explained by previous findings. On the other hand, esports appears to be a male-dominated realm and the correlation between esports culture and women's participation appears to be more significant to understanding women' participation. Therefore, how and to what extent previous studies can contribute to the exploration of women's participation in esports needs to be carefully discussed. What is more important is the development of professional esports play and the ways in which esports online streaming and mobile esports are challenging the traditional way that players take part in video games. At the same time, both market reports and academic studies indicate that there have been considerable developments in the professionalisation of esports play, an issue which has rarely been discussed by previous studies on either esports or video games more generally. Those developments are challenging not only the traditional model that video game players take part in, but also the role of gender in esports culture. For instance, the development of mobile esports has limited the negative impact of in-game skill mastery on women's participation in esports play (Jeong & Kim, 2009).

Since esports research is still in its infancy, reviewing the previous literature as a whole can provide this study with clear clues to direct its exploration of women's participation in esports. Significantly, those studies indicate that video gaming culture is one of the key issues affecting women's participation. Meanwhile, the unique evolution of esports

means previous research on gender issues in video games is insufficient to comprehensively explain women' participation in esports. Therefore, this chapter aims to present a review of the previous studies related to women's participation in video games due to the limited amount of research that has been done on esports specifically. The first part of this chapter concentrates on the relationship between gender and computer games. Issues that will be looked at include women's preferences and motivations for playing video games, as well as the difficulties they encounter. Also, attention is paid to the role of gender in video game culture since the issue of women' participation is deeply intertwined with questions of masculinity and its demonstration within that culture. The second part of this chapter concentrates on the development of the esports industry and the current state of women's participation in order to identify fruitful directions for the exploration of women's participation in esports. In particular, attention is paid to the developments of esports online streaming, professional esports play and mobile esports.

Gender and Gaming

Within the past two decades, a considerable amount of research has been carried out to investigate women's participation in video games. Those studies are based on a wide range of perspectives, such as social identity (Taylor, 2003), social psychology (Hayes, 2005), cultural studies (Heeter et al., 2009; Yee, 2006) and computer technology (Bryce & Rutter, 2003a&b; Cassell & Jenkins, 2000). It is significant that those studies largely address the question of what attracts and deters women to play video games. Moreover, a body of work concerned with gender discrimination has been created. These works attempted to reveal the major obstacles stopping women from participating in computer gaming by exploring ideological elements within gaming culture, such as sexism, feminism and masculinism (Schott & Horrell, 2000; Carr 2005). These studies inform a significant aspect of this study. The aim of this study is to look into the influence of gender in esports game culture on women's participation, but since little research on women in esports exists, reviewing related game studies is necessary.

This section reviews studies from the last 25 years that are associated with gender and video games. The validity of some of the arguments and outcomes may not be suitable

for the current situation since the computer gaming field has changed rapidly. For instance, the argument that the lack of women protagonist in computer games can deter women (Miller & Summers, 2007) has been contested on the basis that a considerable amount of computer games today involves female characters. Furthermore, the validity of these studies has yet to be convincingly demonstrated in the esports field. However, these studies are important to consider as they do reveal the key themes upon which the discussions in the field have been based.

Attractive and unattractive elements for women in video games

The existing video game literature on women focuses particularly on women's preferences and dislikes when it comes to playing video games. A common way of understanding women's motivations for playing video games is to categorise players into different types. At present, the taxonomy of computer game players mainly derives from Bartle's (1996) proposal of four types of player: Achievers, Killers, Socialisers and Explorers. Those four types indicate players' different motivations for playing video games. A later study carried out by Yee (2006) further suggests Achievement, Social and Immersion as the three major motivations for players to participate in video games. Among all the preferences identified, social interaction and communication has been suggested to be the most apparent motivation for women to play video games (Yee, 2006; Hayes, 2005). Conversely, the violence and competitiveness associated with video games have been suggested to be less attractive to women than to men (Kafai, 1996; Bryce & Rutter, 2003b).

The social aspect of gaming has been identified as a factor that motivates gamers to play for long periods (Hayes, 2005; Bryce & Rutter, 2003b). In 2003, Taylor argued that women's motivations for playing video games are multiple, but that social interaction remains to be a visible and influential element for women. A later study carried out by Yee (2006) illustrates that gendered differences exist in people's motivations for playing online games. Based on responses from 30,000 players of Massively Multiplayer Online Role-Playing games (MMORPGs), Yee argues that women are 'significantly more likely to be driven by the Relationship factor' (2006, p.

309). The 'Relationship factor' represents players' desire to interact with other players. Moreover, Heeter et al.'s (2009) research exploring gendered differences in game design reveals that social interaction is particularly associated with girls design of video games. Even though social interactions in female designed games are more likely to occur with nonplayer characters, however, Heeter et al. detected that men participants have little interests in social interaction in game design. In detail, men participants in their research 'envisioned games with no social interaction' and anticipate fighting alone because 'the other player was … competing against you to earn more money' (p.86). This study reveals men are more likely to recognise relationships with teammates as a kind of competitive relationship and are less interested in in-game social interaction. On the contrary, women are more likely to involve social interactions in game design. Furthermore Heeter et al. further point out women designed games are more likely to be attractive for women and social interaction is one of the important reasons.

In the development and popularisation of multiplayer games, the social and interaction as a motivation appears to have been significant; multiplayer online games 'provided players opportunities to interact and connect within large shared virtual worlds' (Przybylski et al., 2010, p. 156). As esports is a type of multiplayer game, this motivation is important to consider as a motivator in this study. Along with those discussions of women's interest in socialising and interacting with other players, explanations have been provided by previous studies. Hayes (2005) argues that this motivation influences women mainly because mutuality and relationships are primary sources of identity for women. By associating the motivation of social and interaction with women's gender identity, women's preferences of social in playing video games has been attributed to issues of gender differences rather than to other elements, such as video game culture.

In fact, the idea that social and communication is the primary attractive factor for women to play video games is in dispute. The primary problem with this explanation is that it is too narrow to explain women's participation in different types of games. For instance, Schott and Horrell's (2000, p.43) research problematises the traditional social and communication explanation by investigating players who are 'able to sustain their interest in a game by playing solely on demo disk versions'. Additionally, even within

the context of multiplayer online games, opposing evidence has been presented. A direct challenge of the prevalence of this motivation is posed by Lucas and Sherry (2004). Their work on girls' preferences reveals that young men participants are more easily motivated by social interaction to play games than young female participants. Surprisingly, their research shows that social interaction provides the lowest gratification for young women participants while it provides the second highest gratification factor for young men participating in video game play. These findings clearly indicate that the gender difference associated with the social and communication factor might not be as evident as previous studies suggest.

On one hand, the research cited above indicates the necessity of exploring this motivation in esports participation, particularly when gender is being explored. On the other hand, it has been illustrated that it is problematic to cite social as the only visible motivation for women in different kinds of games. Moreover, according to Yee's classification of players' motivations (2006), 'achievement' and 'immersion' are two other notable motivations. However, there is limited literature focusing on how those motivations are associated with women's participation in esports. In playing esports, those two motivations appear to be crucial in understanding women's participation. Yee suggests that improving in-game skill mastery is a way for players to obtain a feeling of achievement, which can stimulate players to take part in video games. Since esports is a kind of competitive video game and improving skill mastery is one of the core experiences for players, it appears necessary to explore whether this motivation is important in attracting women to play esports. Additionally, the experience of immersion has rarely been discussed within the context of women's participation in esports. This limitation invites the questions of how the experience of immersion happens in playing esports. Meanwhile, it is unclear whether immersion is crucial to women's experience of playing esports. More specifically, Yee's (2006) work further provides a detailed list of factors that fall under each category. These lists can provide comprehensive directions for carrying out the fieldwork in this research.

In the process of exploring women's motivations in playing esports, it is more reliable to adopt Taylor's (2003) idea that players' participation is stimulated by multiple pleasures. On the one hand, while the majority of the studies emphasising social as

women's core focus on MMORPG and Role-playing Games (RPGs). Due to the differences in game design between those types of games and esports, findings on how and to what extent this motivation stimulates women to play MMORPGs and RPGs are not wholly transferrable to esports. On the other hand, overemphasising the connection between social interaction and women's participation in video games may limit researchers, hindering their ability to reach a comprehensive understanding of women in esports.

Apart from how social and interaction attract women to play video games, the other aspect to understand women is to explore their less interested elements. A series of studies identifies competitiveness as a less attractive factor for women to play video games (Kafai, 1996; Bryce & Rutter, 2003b; Hartmann & Klimmt, 2006). Back in the 1990s, scholars were noting the gendered preferences for violence in computer games. Dietz (1998) explores the violence in video games and points out that it may lessen women' desire to play. Later research would pay more attention to the competitive aspect of video games than their violence. A general idea mentioned by those studies is that women are less likely to be motivated by game play associated with competitions (Lucas & Sherry, 2004; Hartmann & Klimmt, 2006). The literature argues that women prefer to accomplish something socially significant and beneficial than to win (Hayes, 2005). A similar argument is posited by Schott and Horrell (2000), who argue that what women enjoy about RPGs is the free exploration of its virtual environment, rather than completing the game's task. What is notable for esports studies is that the design of esports is inevitably concerned with winning and losing. This is to say esports play involves a certain level of competition and violence. Thus, whether the stereotype of women being less interested in competition in gameplay can explain the gender gap among esports players remains questionable.

However, an inevitable limitation of this body of research is that the target population of those studies focuses on players who never or rarely enjoyed the competitive and violent elements of games. For instance, Terlecki et al. (2011) point out that women show preferences for traditionally masculine games, such as sports themed games, when considering what they would like to see in a game designed for their preferences. The possibility of women enjoying competitive elements in games has been argued by

Taylor (2003), who suggests that besides the enjoyment of violence itself, publicly displaying proficiency in a valued practice could be the factor that allows women to gain enjoyment from violence and competitiveness in games. Even though the situation suggested by Taylor extends the discussion to a broader context than the competition itself, it still reveals the necessity of rethinking the relationship between competition in video games and women. Hartmann and Klimmt's (2006) work offers a more comprehensive picture of how women are influenced by competition in gameplay. Their research indicates that even though violence can affect women's game preferences, it has minimal influence compared to other factors such as the lack of story narratives in games. These result outcomes show that competitions and violence are not the influential element deters women from playing video games. What needs to be noted is that competitions and violence are contested elements in influencing women's participation in video games. Since esports play is highly associate with competitions, it is necessary to involve competitiveness as one important dimension in this research. In sum, in the process of understanding women's participation in esports, one of the primary questions is to explore whether, and to what extent, competitiveness and violence in esports play deters women from playing. At the same time, it is necessary to explore how women who play esports negotiate the competitiveness if it is not an element they enjoy.

Apart from discussions of social and competitiveness in video games, previous studies have suggested various motivations for players' participation. A typical publication by Yee (2006) concludes that achievements, social factors and immersion are three main groupings for players' motivations to play video games, then provides a detailed list of factors that fall under each category. For instance, Yee suggests that improving in-game skill mastery is a way for players to obtain a feeling of achievement, which can stimulate players to take part in video games. This and other studies provide substantial information about players preferences and motivations for playing video games. In terms of women's participation, social and competitiveness appear to be the most conspicuous elements for understanding some of the motivations for women. One thing that needs to be noted is that the factors motivating women to participate in esports are more complicated than social and competitiveness alone. Since esports includes a higher level of competitiveness and less social interaction and communication during play, this study, on one hand, pays particular attention to how social and

competitiveness influence women, and on the other hand, explores other elements associated with women's participation in esports.

Difficulties that women meet in playing video games

The other common approach to exploring gender differences in playing video games is to examine the difficulties met by women. Engagement with game device technology, game professionalism and self-confidence levels have been identified as apparent difficulties influencing women's participation in video games.

While video games have been identified as a digitally mediated leisure activity (Bryce & Rutter, 2003b; Lin, 2013), the gendered technology aspects mentioned above appear to be a hinderance to women' participation in video games. More specifically, since esports is mainly played though PCs and mobile devices, such as smartphones or tablets, women's engagement with these devices has been suggested as a vital element influencing their participation. Regarding women's engagements with game related technology, it has been suggested that, in the past, women have lacked 'engagement with the technology' (Yates & Littleton, 1999, p.570), for a number of complex social, cultural, economic and educational reasons. Exploration of the role of gender in technology has been ongoing for a long time. Along with Wajcman's (1991, 2010) discussion of technofeminism[sic], the gendering in different technology genres has been discussed. What highlighted by Wajcman is that the gender gap in technology is highly associating with historical role of gender. The masculinity in technologies, such as computer technology, is reinforcing the trend of 'femininity was being reinterpreted as incompatible with technological pursuits.' (p.144). More detailed explanation can be presented through Lagesen's (2008) review of the literature on the gendering of computer science. Lagesen finds that 'women's deficits … and deficits in the educational practices of computer science' are the factors driving gendering in computer technology engagement (p.6). What is obviously presented by those studies is that there is an obvious gender gap in computer technology participation.

Furthermore, there are detailed studies implying that women's weak engagement with technology is negatively influencing their participation in video games. In 2000, Schott and Horrell revealed that girls' lack of participation in the video game field is primarily due to the way they take part in the games, through secondary access to consoles owned by others. In this situation, women's participation in game play is restricted by weak relationships between the game devices and themselves; specifically, the consoles mentioned in the study are owned by men, who may intervene in the women's participation. For instance, one of Schott and Horrell's interviewees reports that her father advances to higher levels and saves them onto her memory card since they are sharing the same game device and game account. In the realm of computer games, in the past it was perceived that women initially adopt computers 'as something for work, rather than leisure' (Yates, 1990, p.581). Women may re-evaluate the computer as a leisure device and start playing computer games as a leisure activity afterwards. On the contrary, Bryce and Rutter's (2003b) study indicates that boys have advantages when it comes to playing computer games because they have generally achieved a certain engagement with the computer technology. Recent publication is suggesting the gender gap in computer technology is not immutably fixed (Wajcman, 2010; Lagesen, 2008). Lagesen's empirical research of women's participation in computer technology in Malaysia has proved the gender gap in this area is narrowing down. However, what must be noted is that the studies discussed above reveal that women's engagement with game devices are comparatively limited. Meanwhile, it has been shown that how such weak engagement with technology limits women' participation in video games. Moreover, how does women's engagement with technology influence their participation in esports is not clear.

It is important to note that studies suggest that women's comparatively weak engagement with technology and its influences on their participation in video games largely result from the masculinity of both video game culture and computer industry. Wajcman (2010) argues that, even though computer technology has not been entirely coded as masculine, a powerful masculine hegemony still has a strong relationship with computer technology in contemporary Western society. Wajcman further points out that carrying out technical practices 'therefore requires women to sacrifice major aspects of their feminine identity' (2010, p.144). Women are excluded from the

technical realms due to the binary relationship between masculine hegemony and feminine identity. Therefore, since women have previously been excluded from computer science, it seems reasonable to suggest that this has an influence on their engagement with the computer gaming field as well. In video game studies, Yates and Littleton (1999) point out that most computer games are in line with men's cultural competencies rather than sexual differences. In other words, the gender difference in games related to technology engagement is largely the result of the social and cultural frame. Since esports has a deep relationship with computer science and mobile technology, technology engagement as discussed in those studies is an important aspect that must be considered when examining the gender gap in esports play. It is worth to mentioning that the term of mobile devices adopted in this research mainly refer to smartphone and tablets. Moreover, if there is a significant gender gap in technology engagement in playing esports, it is necessary to investigate whether such a gender gap results from cultural reasons or sexual differences.

The second obstacle to women's participation in video game play highlighted by previous studies is their limited capability in gaming professionalism. Gaming professionalism as discussed in this thesis mainly refers to a player's level of in-game skill mastery and the process of improving it. Improving in-game skill mastery is identified by Yee (2006) as one component of the motivation of achievement, which is one of the three core motivations for playing video games that Yee identifies. However, there is evidence supporting the idea of women have a lower level of in-game skill mastery than men. Schott and Horrell's (2000) research on women video game players shown when men and women appear in gameplay at the same time, men often take on the role of 'expert'. The term 'expert' refers to the idea that men have a comparatively higher level of in-game skill mastery. Moreover, Schott and Horrell (2000) suggest that women have an identity as secondary gamers and that this is largely due to their comparatively low level of skill mastery. Evidence of this is also shown in Carr's (2005) research. One of his interviewees reports that she likes the game *Midtown Madness* (Angel Studios, 1999) because she can crash into everything. Practices like 'crashing' emphasise a less skilled practice of video game play. Those studies illustrate there is gender gap in controlling in-game skill. Additionally, gender differences in controlling in-game skill have been suggested to be influential for players to choose video games. Carr's (2005) study highlights that players' game preferences are strongly associated

with their game competency. Therefore, a possible explanation of men's dominance within esports is that esports require players to have a comparatively high level of in-game skill mastery while women are not skilful enough. However, evidence presented in current research is far from enough to prove women universally have a lower level of in-game skill mastery than men. Moreover, it is not clear whether women are objectively weak at in-game skill mastery or whether they identify themselves as less skilled players. In addition, it is necessary to ask whether their game competency constrains their participation in esports.

In fact, one critical consideration is the reasons driving women's comparatively low level of in-game skill mastery. Biological sexual differences have been adopted by a series of research to explain the gender difference in controlling game skill. Research from the psychology perspective shows that the playing of computer and video games is related to spatial skill (Terlecki and Newcombe, 2005). This skill has been found to be one on which men outperform women on average (Quaiser-Pohl et al., 2006). Moreover, as Sherry and Lucas conclude from previous research, men are better at action and adventure video game related skills such as 'mental rotation of three-dimensional objects, navigation through a route or maze, and target-directed motor skills.' (2004, p.509). These analyses show that the gender gap in controlling game skills in video game may partly originate from sexual differences. However, it is not to emphasise women are naturally weak in controlling in-game skills. Rather than attributing women's low level of in-game skill mastery to sexual differences, Carr argues that players' video game preferences depend on 'what we know, who we know, what we have tried, or tired of, and what we will admit to' (2000, p.478). This is to say that even though game competencies are influential in women's participation in video games, it is inappropriate to attribute it entirely to sexual differences. Sherry and Lucas (2004) further point out women appear to be weak in in-game skill mastery is due to current game design is more likely to meet men's advantages, such as 'mental rotation and maze navigation' (p.509). This kind of game design 'systematically places women at an early disadvantage in terms of their ability to control the gaming environment', moreover, failed to meet women's 'primary gratification of control' (pp. 509-518). As a result, women are less likely to improve their performance of playing video games through continuous practices. These studies highlight the gender gap in in-game skill

mastery could not simply be explained as biological sexual differences. Considering esports is a kind of competitive game that require player to have a certain degree of in-game skill mastery, it becomes vital for this research to explore the how and why in-game skill mastery relates with women' participation in esports.

Apart from engagement with technology and game professionalism, another branch of research suggests that a lack of self-confidence among women negatively affects women's participation in video games (Schott & Horrell, 2000; Bryce & Rutter, 2003b; Sherry & Lucas, 2004, Terlecki et al., 2011). Hamlen (2010) points out players' confidence is one of the core sources of generating motivation to play video games. The current research looking at the way confidence level influences players' participation in video games suggest two paths for this research to follow. In detail, pieces of evidence are indicating there is a lack of self-confidence among women. Terlecki et al. (2011) provide a piece of direct evidence to support this, finding that men on average have a confident attitude toward their playing ability (28% of men, compared with 4% of women). On the contrary, 26% of women report they feel their in-game skill mastery is limited, while less than 10% of men feeling the same. Obviously, women that participated in this study have a comparatively low level of confidence in their skill mastery. Another study carried out by Schott and Horrell (2000) detects women's confidence in playing video games can influence their participation behaviour. Women participants in their research reported they prefer to complete easier actions and copy what men do. Schott and Horrell further points out the lack of confidence among women is one of the reasons drive to men's leadership in mixed-gender game play. This piece of evidence clearly indicates the gender difference in confidence in game play.

What is worth to be noted is that players' confidence of playing video game is deeply intertwined with the time they spend on plying and the level of their in-game skill mastery. As Hamlen (2010) describes this process as 'time spent playing leading to greater skill and confidence, and greater confidence providing motivation to play more.'. At the same time, their confidences of playing video games in turn affect the time they spend on playing and their in-game skill mastery improvement. When women do not have enough confidence in their playing ability, one possible consequence is that the majority of women take part in games with lower skill requirements (Taylor, 2003). This idea is important to the study of esports since one of the core features of esports is

its high level of competitiveness. This is to say that esports requires players to have a certain degree of skill mastery to compete against other players. While the majority of men surpass women at in-game skill mastery in playing esports, it is also possible for women to be less confident about their playing abilities as an opposite group to men players. However, evidence indicates that women are not naturally weak in in-game skill mastery. Therefore, if this study detects a lack of confidence in women playing esports, it is necessary and significant to explore the potential cultural and social reasons behind this phenomenon.

The evidence presented in this section suggests that technology engagement, game professionalism and self-confidence as three major obstacles to women's participation in video games. These findings present key elements deterring women from playing video games and provide vital clues for this study to explore women's participation in esports. What needs to be pointed out is that the obstacles suggested by the studies discussed are not inherent. With the increased popularity of computers, the number of women who play video games is increasing. According to Entertainment Software Association (ESA, 2019), a report on the demographics of game players shows that women occupied 41% of the number of online players in the USA in 2016 and this number has increased to 46% in 2019. Such a considerable number of women indicates that the persistent difficulties that the literature in the field once attributed to women's participation in video games have been challenged. However, since most of those studies focus on computer games, how those difficulties transfer to the field of esports remains unclear.

Marginalising women: Game design, feminine games and the gaming community

As well as attributing the gender gap in video game play to biological sexual differences, the existing literature makes efforts to explain it in the context of video game culture. Among these explorations, masculinity, gender stereotypes and the rise of feminine games have been identified as elements alienating women from both playing video

games and video game culture (Dietz, 1998; Kafai et al., 2008; Taylor, 2009; Salter & Blodgett; 2012).

Turning first to the cultural aspect, video games appear to remain fixated on a masculine gamer identity (Kafai et al., 2008). The most controversial idea reflecting the masculinity of video games is that 'women who play computer games are, if not invisible, typically seen as oddballs and anomalies' (Taylor, 2009, p.93). The participation of women in video games has been suggested to be subordinate. For instance, Schott and Horrell (2000) argue that women' participation in video games is an alternative leisure method and that they do not 'attribute as much importance to it as men do' (p. 49). Their study finds that this gender difference is partly due to the domestic division of labour. In other words, women players reported that domestic chores occupied their time, while men are less likely to report the same problem. Given the role of masculinity in other fields, such as domestic labour and game technology, the masculine identity of video game culture is not surprising.

The masculine taste inherent to game design has been stressed as an element that alienates women from video games (Gailey, 1993; Dietz, 1998; Kirkland, 2009; Salter & Blodgett, 2012). By analysing console games, Dietz (1998) published an early study discussing the gender issue in video game design. It illustrates that 41% of games with characters did not include female characters. Among those games involving female characters, Dietz further argues that violence and sexual actions focus on those female characters particularly. With the development of video game technology, characters in video games became more diverse. Later research confirms that the number of female characters in video games has increased since the late 1990s (Burgess et al., 2007; Lynch et al., 2016). In fact, studies have traced the emergence of powerful female characters (Jansz & Martis, 2007), such as Lara Croft *in Tomb Raider* (Core Design et al., 1996). To a certain degree, the results of those studies indicate that the classical design of female characters described by Dietz (1998) is changing. Protagonists such as Elizabeth in *Bioshock Infinite* (Irrational Games et al., 2013) and Ellie in *The Last of Us* (Naughty Dog, 2013) are showing the trend of more powerful female characters are emerging in video games. As Perreault et al. describe, 'these characters evolved into self-sufficient, confident women who contributed not only to their own survival but

also the survival of male characters' (2018, p.854). Those female characters provide vivid examples in contrast with stereotypical image of female protagonists.

However, that trend of sexualisation is concentrated on female characters particularly remains obvious in video game design (Burgess et al., 2007; Miller & Summers, 2007; Lynch, 2016). For instance, even though Lara Croft in *Tomb Raider* (Core Design et al., 1996) is one of the most typical powerful female character in video games, she has been designed with 'balloon-like breasts…(and) extremely short shorts' (Burgess et al., 2007, p.421). This kind of sexualised design has been argued to provide visual stimulation for players (Burgess et al., 2007) and highlight the men's perspective in game design (Lynch, 2016; Perreault et al., 2018). The 2013 version of this game (Crystal Dynamics, 2013) designed Lara to be a 'more complex, emotive character, rather than a gun-toting action heroine' and the sexualised design of her appearance has changed (MacCallum-Stewart, 2014). However, as MacCallum-Stewart points out, Lara 'is still troubling in terms of gender' (2014, p.1.). Meanwhile, the depth of the discussion of female characters' body through the lens of sexualisation is a reflection of the problematic design of female characters' appearances in video games. Other evidence suggests the masculinity of game design influences the game narrative. The gender biased game narrative is described as 'the construction of infallible one-dimensional heroes, the male-rescue-female game goal' (Kirkland, 2009, p.171). Within this narrative, women are portrayed as damsel in distress awaiting rescue (Gailey, 1993). For example, *Super Mario Bros* (Nintendo EAD, 1985) designs the aim of playing is to rescue Princess Peach and *The Legend of Kage* (Taito, 1985) designs the mission for protagonist is to rescue Princess Kiri. A common consequence of the gender bias in video game design is that women may be uninterested in them or find them offensive (Gailey, 1993). It has been explained that the gender biased design of video games reflects the preferences of men (Cassell & Jenkins, 2000). Gender discrimination in video game design clearly indicates the masculinity of video game culture. As Kafai et al. (2008) point out, regardless of the increase in women who play video games since the 1990s, issues of masculine-centred games still plague the game industry. The domination of masculine tastes in video game design is one of the factors deterring women from playing.

The second aspect marginalising women from video games is the emergence of feminine games. The masculine sensibilities of game design and the way it deters women from playing is not new to the video game industry. Apart from the strategies mentioned above, such as increasing the number of female characters and creating powerful female protagonists (Jansz & Martis, 2007; Lynch et al., 2016), another way the industry aims to attract women is by publishing feminine games. Feminine games are often referred to as 'Pink Games', which refers to games designed to meet girlish aesthetics (Nakamura, 2005; Dickey, 2006), such as focusing on narratives and involving less violence. A typical example of Pink Games is the Dress-up game named *Love Nikki-Dress UP Queen* (Nikki Games, 2015). In this game, players dress up the protagonist in order to gain scores and those scores can be used to exchange more dress up items in game. In contrast with Pink Games, competition with opponent players has been addressed to be one of the core features of esports. This is to say the play style of esports is not in line with the style of Pink Games. For instance, *Warcraft III: The Frozen Throne* (*Warcraft 3)* (Blizzard Entertainment, 2003) is a real-time strategy esports game, which has the feature of competitive and has clear rules of lose and win. It is worth mentioning is that a study focusing on feminine games suggests that *Warcraft 3* is the least suitable video game for women (Dickey, 2006).

Apart from differences in gameplay, aesthetics of Pink Games is different from esports games. Such differences can be illustrated by comparing screenshot of *Love Nikki-Dress UP Queen* and *Warcraft 3*. Figure 1 presented below is a screenshot of *Love Nikki-Dress UP Queen* and shows the living space of the protagonist.

Figure 1. Screenshot of Love Nikki-Dress UP Queen

Source: Love Nikki-Dress UP Queen (2020, 30th March)

In this picture, the protagonist is designed as a cute girl with beautiful clothes and beautiful furniture in her room. It illustrates the design of *Love Nikki-Dress UP Queen* involves pink colour, shopping theme, nonthreatening and pleasurable gameplay, which have been identified as 'stereotypically feminine aesthetics' of game design (Kearney, 2010, p.2). In contrast with the design of *Love Nikki-Dress UP Queen,* the design of *Warcraft* 3 appears to be more masculine.

Figure 2. Screenshot of Warcraft 3.

Source: Reanimated (RnmtD) (2011, 20th September)

The theme presented in Figure 2 is obviously associated with war, which is not common for the design of Pink Games. Moreover, at the bottom of this picture, very detailed information is presented include health points, magical points, equipment, skills and so forth. Apart from direct information presented in Figure 2, Gibbs et al. (2012) further pointed out the design of *Warcraft 3* involves death aesthetics post-colonial aesthetics. As a real-time strategy game, *Warcraft 3* matched the definition of esports presented in the Introduction and it is a typical esports game. The aesthetics of *Warcraft 3* can be seen as a representative case of MOBA game design. Therefore, neither the gameplay nor aesthetics of esports appear to be in line with Pink Games. The design of esports games does not match girlish aesthetics appears to be an explanation of the gender gap in esports play.

The problem, as Taylor (2003, p.22) emphasises, is that 'framing women and gaming as a "Pink Game" issue' is too typified. At the same time, emphasising the connection between women and feminine games places women in a marginal place in video game culture. One of the typical consequences is discussed in Vanderhoef's (2013) research on women's participation in casual games. According to Vanderhoef, casual games contain a typical discursive representation of femininity and are the opposite of hardcore games. Women's participation in casual games appears to be irrelevant to the gaming community, and their connection with casual games reinforces the masculine identity of gaming culture. Clearly, those studies illustrate that the trend of emphasising women's connection with casual games is contributing to the masculinity in video game culture. The masculinity in gaming culture is marginalising women from and echoes the idea that women are subordinate players (Schott and Horrell, 2000).

In the context of a study exploring esports, the limitation of emphasising the connection between Pink Games and women is obvious and considerable. It fundamentally ignores the considerable number of girls and women who take part in so-called masculine games, such as First-Person Shooter (FPS) games and Multiplayer Online Battle Arena (MOBA) games. The genre of esports is typically the opposite of Pink Games since it involves high levels of violence and competitiveness, and research results on feminine games are far from sufficient to explain women's participation in esports. Since there is an increasing number of women participating in esports, it is expected that the reasons driving women to play esports are complicated. What is important to this thesis is the

masculine identity of video game culture described by those studies. Since the masculinity of video game culture has negative influences on women, it appears to be a significant element in understanding women's participation in esports, a typically masculine game genre.

The third aspect reflecting the masculine identity of both video games and video game culture is the exclusion of women in the video game community (Dickey, 2006; Salter & Blodgett, 2012). Current game studies mainly examine this exclusion by focusing on the public discourse in the gaming community, which has been characterised as 'dominantly male with little visible feminine influence' (Salter & Blodgett, 2012, p.403). Once women have been identified as non-expert and casual players in video game culture, their voices, if they would like to express themselves, are generally 'belittled, verbally assaulted and harassed' by the hardcore gaming public (Salter & Blodgett, 2012, p.411). According to Dickey (2006), harassment of women has not only been detected in dialogue, but also exists in gameplay actions. Those studies explore the persistent exclusion of women in video game play and reflect the privilege of masculinity in this area.

Additionally, the rapid development of the video game industry is expanding methods for players to participate in video games. For instance, online streaming platforms such as *Twitch.tv*, which allows viewers to watch a live feed of another person playing a game, is becoming a popular way for players to participate in video games (Nakandala et al., 2017). Likewise, harassment and discrimination against women has been detected in those areas (Kuznekoff & Rose, 2013; Anderson, 2017; Nakandala et al., 2017; Ruvalcaba et al., 2018; Ruberg et al., 2019). Compared with video game play, women' appearance in online streaming gives rise to more considerable gender harassment and discrimination. Women streamers' physical appearances are suggested to be the core factor attracting their audiences (Ruvalcaba et al., 2018). For instance, women streamers dressing in Lolita style. Moreover, experimental studies indicate there are overwhelming negative comments associated with women streamers (Nakandala et al., 2017; Ruvalcaba et al., 2018). By emphasising the appearances of women in video game online streaming and commenting on women streamers negatively and aggressively, it is obvious the gaming community within the context of indirect game participation is dominated by the masculinity. Consequently, this contributes to the

ignoring of women in the broader video game context reinforces the perception of video games as a masculine activity. Women are even positioned as entertainment and consumption objects. Such hostile attitudes from the gaming community establish cultural barriers that deter women from playing.

Collectively, the literature reviewed in this section primarily reveals the complexity of women's participation in video games. It has been demonstrated that there are gender differences in game preferences and playing motivations. However, the evidence presented by previous video game studies exaggerates the influence of social interaction and communication on women's participation. Moreover, technology engagement, in-game skill mastery and self-confidence have been addressed as influential elements by current investigation of women's participation. Additionally, a branch of studies explores the masculinity of video games by looking at game design, the emergence of feminine games and the gaming community. The studies illustrate that masculine privilege occupies a dominant position in video game culture. Those influential research outcomes provide a comparatively comprehensive understanding of women's participation in video games.

What need to be noted is that the development of video games, especially the emergence of Pink Games, managed to attract women. One of the typical consequences is that a recent research suggests that 'men and women are equally likely to say they play video games' (Duggan, 2015). However, this description is not in line with the existing considerable gender gap in esports participation. This is because most of the studies discussed above focus on the broader context of video games and their validity in the esports field has yet to be convincingly demonstrated. The studies discussed here demonstrate the masculine identity of video game culture and further illustrate its negative influences on women's participation. Since esports is a kind of competitive video game which appears to be far removed from the feminine game genre, masculinity appears to be a key element for this thesis to understand women's participation in esports. According to the review presented above, the current research outcomes are not sufficient to present a comprehensive explanation of women esports player. Thus, it is vital to carry out research focusing on the particular context of esports. Moreover, it is anticipated that this study will contribute to the understanding of the role of gender in a broader video game context. More detailed discussion of the

masculinity and women's participation in video games will be addressed in the next section of the literature review.

Players' engagement with the community

The previous section discussed the masculinity of the video game community and its marginalisation of women. In this section, broader attention is paid to players' engagement with the game community. In other words, this section concentrates on studies exploring how interplay with the community influences players' participation behaviour. The interaction between players and the online esports community can influence players' gratification level (Blight, 2016), esports information acquirement (Kow & Young, 2013; Seo, 2016) and their self-identification as an esports player (Blight, 2016; Özbıçakçı, 2016).

A small but important body of research looks at the interplay between players and the cultural community within the context of esports. Such interplay is described as 'fandom' in cultural studies and was initially adopted by scholars to discuss the activity of fans (Fiske, 1991). What is highlighted by the concept of fandom is the interplay between audiences and the culture community (Gray et al., 2017), as well as its role as 'an increasingly important identity resource' for audiences (Sandvoss et al., 2017, p.11). The idea of fandom concerns players' engagement with the gaming community and the creation of game culture (Spaulding, 2016). More recent game studies indicate that high levels of fandom have important influences on players' participation behaviour (Kow & Young, 2013; Blight, 2016; Özbıçakçı, 2016; Seo, 2016). Therefore, exploring the interplay between players and the community, described as fandom, appears to be vital in understanding women's participation in esports.

There are three elements that need to be mentioned to present the research exploring women's interplay with the community. First, self-identification as a player has been found to be strongly associated with players' degree of engagement with the community (Blight, 2016). Self-identification has been defined as players' psychological engagement with the game community (McMillan & Chavis, 1986; Blight, 2016). Moreover, high levels of self-identification represent players' high engagement with

the video game (Spaulding, 2016). Research focusing on players' self-identification provides the second path for this thesis to evaluate women's engagement with the community.

Specifically, specialised skill and knowledge about esports is the key element for casual esports players transforming their self-identity into that of an enthusiastic player (Seo, 2016). A later study on esports fandom in Turkey (Özbıçakçı, 2016) further points out that players' knowledge is strongly related to their self-identification with fandom. In other words, women's knowledge and skill mastery is highly related with their self-identification as esports players. In the process of acquiring esports skill mastery and the related knowledge, online streaming and its community have been revealed to be important sources for current esports players (Kow & Young, 2013). For instance, online streaming introduces professional players' practices to general players, who 'turn this information into shared practices with their practice partners' (Kow & Young, 2013, p.391). This is to say, participating online streaming enables players to receive information and knowledge associated with esports. Therefore, exploring women's skill-mastery and related knowledge about esports appears to be important for understanding their participation in the culture.

Last but not least, companionship and social interaction are the other core elements that have been explored in relation to players' engagement with the community (Blight, 2016). Instead of meeting in the physical world, online community members participate in expressive information sharing to 'satisfy their social interactions through building or maintaining companionship' (p.15). Blight (2016) demonstrates that players' engagement with the community has a positive relationship with expressive information sharing. This is to say that satisfying experiences of social interaction can improve women's engagement with the community. To a large extent, this idea echoes women's preferences for social interaction and communication. Exploring their experiences of companionship and interaction can shed light on the degree of women's engagement with the community. As Blight mentions (2016), a viewer's self-identification is likely to be 'shaped by the behaviours of other members in the community' (p.38). Exploring women's social interaction and companionship in game play aims not only to illustrate how social and communication attracts women to playing esports but also to evaluate their engagement level with the community.

Players' engagement with the game community has been shown to be an effective direction in investigating players' activities (Fiske, 1992) and in identifying 'who is a fan of what and how' (Sandvoss, 2017, p.5). Blight (2016) points out that being a fan does not represent a higher level of obsession in esports (Blight, 2016). However, exploring women's engagement with the community can be a pathway to detect the role of gender in esports realm. For instance, women appear in offline leagues as cosplayers and cheerleader is not pieces of evidence to indicate they have high level of obsession in esports. On the contrary, it may be understood as a reflection of masculinity in esports offline leagues. Moreover, skill mastery, knowledge of esports and companionship and social interaction are core aspects for evaluating players' engagement with the community and their self-identification. These elements echo women's preferences and motivations for playing video games. Therefore, to explore women's engagement with the community through these elements becomes vital to understanding their participation in esports.

Development of esports

August 2016 saw the 6th championship of the International (the TIs), the most famous tournament for the game *Dota 2,* which has been run annually by Valve, the developer behind the game, since 2011. The 2016 tournament attracted worldwide attention with a prize pool of over $ 20 million (*Dota 2* Official Website, 2016). In August, esports fans watched over 51.6 million hours (NewZoo, 2016) of *Dota 2* content on *Twitch.tv* (Amazon, 2011), a popular live streaming video platform. The remarkable development of the competitive computer gaming industry has gained worldwide attention and provide new directions for research in both game studies and esports studies. According to data presented above, the development of esports is becoming diverse. For instance, the development of professional esports play is differentiating esports from traditional video game playing experiences. As such, this section reviews the notable development of esports including the development of esports online streaming, professional esports play and mobile esports. In addition, this section discusses why those developments are important to this study.

Popularity of online streaming

Apart from playing esports directly, there are considerable ways for people to enjoy it indirectly. With the development of new media platforms, online streaming is becoming one of the major indirect participation methods for players to participate in esports (Kaytoue & Silva et al., 2012; Edge, 2013; Hamari & Sjöblom, 2017; Nakandala et al., 2017). Kaytoue & Silva et al. (2012) analyse the size of the audiences of *Twitch.tv*, which has become one of the largest sources of peak Internet traffic in the US (Deng et al., 2015) with over 15 million daily active users (Influencer Marketing Hub, 2018). This data clearly indicates that comparing with playing esports game directly, watching online streams has been adopted by players as one of the popular alternative methods of enjoying video games. At the same time, scholars have started to explain the successful combination of online streaming and esports. For instance, Gandolfi (2016) highlights the immediacy of sharing information through online platforms as one of the core elements that attracts players. These studies demonstrate the importance of online streaming platforms in exploring players' participation in video games.

Relating to the field of esports, online streaming appears to be one of the inevitable directions of understanding players' participation. Esports is a new phenomenon deeply rooted in a combination of media, sport and internet technology (Hutchins, 2008). Thus, it is not surprising that online spectating has emerged and been adopted by esports fans as a main method of participation. One of the most typical pieces of evidence is that the emergence of professional esports has contributed to the importance of esports online streaming for players. For instance, online streaming of the final event of the *League of Legends* (*LoL*) (Riot Games, 2019) world championship in 2014 attracted 27 million people and generated more than 71 million online views within four days (Holden et al., 2017). Moreover, by comparing the audience sizes of *Twitch.tv* during esports events with the audience sizes at other times from September 2011 to January 2012, Holden et al. (2017) detect obvious increases when there are esports events or tournaments to watch. Obviously, online streaming is attracting a considerable number of players to take part in esports, so this is an important consideration for esports research.

The popularity of esports online streaming has not only increased the diversity of participation methods for esports but has also become a core component of the esports community (Cheung & Huang, 2011). As Edge (2013) points out, the popularity of esports online streaming provides the possibility of forming an esports online community with a vast and dedicated following. As was mentioned in the last section, esports online streaming is a pathway for players to acquire skill mastery, knowledge and social networks (Edge, 2013, p.1181). Additionally, since online streaming is the main method for broadcasting professional esports events, participation in online streaming allows for 'an easy channel of communication between the spectators and professional players' (Hamari & Sjöblom, 2017, p.9). This idea is important for this thesis because professional players generally have a higher level of in-game skill mastery, representing the highest level of esports play. Women's engagement within high-level esports play is unclear. In fact, communication not only occurs between spectators and professional players, but also amongst spectators, who can use the active chat functions of the online streaming platform. The increasing popularity of esports online streaming is 'nurturing the growth of a new web community' (Edge, 2013, p.1). This community includes both amateur players and professional players. Therefore, exploring women's attitudes of and their participation in esports online streaming is necessary, on one hand, to reflect their relationship with the community, and on the other hand, to explore the role of gender in esports culture.

Although the popularity of esports online streaming has attracted scholars' attention, the current research remains limited. The core problem is that audiences who prefer to watch esports online streaming have been described as casual players. As Kaytoue et al. (2012) explain, casual players prefer watching professional gamers rather than playing the games themselves. Indeed, watching esports online streaming does not require players to have certain degree of in-game skill mastery. Therefore, this concept of the 'casual player' appears to be reasonable from a superficial perspective. However, linking esports online streaming audiences with the definition of casual player may oversimplify the role of online streaming for esports players. The data presented earlier in this chapter illustrates that large audiences watch esports online streaming; are they all to be considered casual players? Is there a danger of marginalising women viewers/gamers by relegating them to audience members only?

Moreover, apart from exploring online streaming platforms as alternative ways for players to take part in esports, it is necessary to point out that esports online streaming is one of the core components of the current esports industry. Online streaming is not a form that belongs specifically to video games and esports; on the contrary, the content on online streaming platforms is diverse. Even *Twitch.tv* (Amazon, 2011), which is well known as a video game live streaming platform, is involved in non-game streaming categories like In Real Life and Just Chatting. Because the streaming content covers such a wide range, gender barriers are less invisible in live streaming. For instance, according to Iimedia Research (2019), women streamers accounted for 49.2% of the streamers with an annual income of more than 300,000 yuan (around $42,000) in China at the end of 2018. However, little attention has been paid to women's participation in esports online streaming as streamers. While women esports streamers have improved the visibility of women in the esports industry, it is still unclear whether this phenomenon results from a narrowing gender gap in esports. Moreover, it is unclear whether the appearance of women in esports live streaming affect the role of gender in esports culture. Therefore, this research includes online streaming platforms as a component of the esports industry to explore the gender gap in the industry. Furthermore, it is important to explore the relationship between esports online streaming and the role of gender in esports culture.

Professional play and the development of mobile esports

Esports is undergoing unique developments compared with other video game genres. The professionalization of esports and the popularity of mobile esports is extending the research scope of esports studies. This section first presents an overview of the gender gap in professional esports and offline tournaments. Second, it focuses on discussions on the development of mobile esports as a vital direction to undertake fieldwork in. As was suggested in Introduction, the emergence of offline tournaments and professional players is contributing to the professionalisation of esports. The professional play of esports has attracted scholars' attention for a long time. For instance, in Carter and Gibbs's (2013) thorough analysis of the professionalisation of the *EVE Online* (CCP Games, 2003) tournaments, they analyse differences between unbounded competition

and professional esports play. Within more competitive game genres, such as MOBA games, the high level of competitiveness has turned professional esports into an influential worldwide phenomenon.

Turning to women's participation in professional gaming, the gender gap has been noticed by current game studies. Strong evidence can be identified in Agha's (2015) brief work analysing the formation and disbandment of a professional women's *LoL* esports team called Team Siren. As *LoL* is a MOBA game, a typical type of game for esports, Agha's analysis of Team Siren may afford us a better understanding of women in esports. According to Agha, Team Siren experienced a relatively short life and failed to acquire any influential awards before its disbandment. Moreover, Agha notes that the disbandment of Team Siren is associated with the hostile esports culture towards professional women's esports players. As he describes, the 'short lived all women professional team……disbanded approximately one month after they created a YouTube video describing their aspirations in esports' (p.28); the responses from the esports community to their video were generally negative. For instance, it is easy to see negative comments of the video Introducing Team Siren on Youtube. Those negative comments are associating with Team Siren's in-game skill mastery, such as 'Losing is not an option', 'They lost all their games' and 'Seriously, this (women's esports team) is so cringy'. More commonly, those comments concentrate on the gender of teammates, such as 'And we only play femal[sic] characters', 'why exactly do you need an all-girls team?', 'Using your gender so people starts to like you…' and 'Evolution of feminism'.

However, Agha does not present any further explanation for the potential association between the team's disbandment and the negative responses it received from the esports community. Instead, by looking at the match between HotShotGG (a men professional team) and Team Siren, he tries to argue that the failure of this professional women's team was mainly due to its team members lacking skill. To attribute the gender gap in professional esports play to women being incapable is not a rare idea. Sveningsson (2012) explains this phenomenon by saying that women have expressed the idea that they 'do not manage to meet the standards of professional or competitive gaming' (p.438). Since women are referred to in previous game research as less skilled players, questioning their capability to participate in professional esports play could be to some seemingly reasonable. However, these studies fail to provide further evidence to

support their characterisation of women as incapable. Furthermore, since this study is sceptical of the explanatory power of the idea that women are less skilled players, attributing women's absence from professional esports to a gender imbalance in in-game skill mastery appears to be incomprehensible. In addition, the limited amount of research focusing of women in professional esports only considers professional play in relation to in-game skill mastery. As has been discussed above, women's participation in video games has proved to be complicated and is highly influenced by video game culture. Therefore, it is necessary to carry out an investigation of why and how the gender gap appeared in esports play, especially from a cultural perspective.

The other element associated with professional esports play is the development of esports commentary. As in traditional sports, esports commentary has developed into a necessary element for audiences to consume professional esports play. Moreover, the development of esports commentary provides other job opportunities enabling women to take part in this industry. When focusing on the development of esports commentary, recent studies have highlighted that online streaming is the most important means of esports live spectatorship (Taylor & Witkowski, 2010; Carter et al., 2017; Gibbs et al., 2018). This is supported by data from the industry. For instance, according to esports Charts, 51% of the viewers for *TI* 8 watched tournaments streaming on *Twitch.tv* (esports Charts, 2018). This data shows that online streaming has become the most popular method for *Dota 2* players to watch the annual top-level championship of 2018. However, existing literature fails to provide further discussion of women's participation in this area. While esports commentary appears to be closely associated with both professional esports play and esports online streaming, it is an important dimension to explore when looking at women's participation in the esports industry.

Apart from the development of professional esports play, another important direction worth considering is the emergence of mobile esports. The popularity of mobile esports is in line with the rapid development of the smartphone industry. According to Statista (2019), the amount of smartphone users has increased to 3.2 billion. This considerable number of smartphone users is nourishing the impressive development of mobile esports. According to Ćwil et al. (2019), esports has migrated to mobile platforms successfully and the popularity of mobile esports is continuing to increase. The

emergence of mobile esports started in 2014 when the publication of the first mobile esports game (*Hearthstone*, Blizzard Entertainment, 2014) 'increased the number of players by approximately 140%' (Ströh, 2017, p.63). Obviously, mobile esports is attracting an increasing number of players to participate in esports and has become an influential part of the esports world. In addition, a recent work carried out by Yu (2018) reviews the development of mobile esports and points out that China has developed into the largest mobile gaming market in the world and that its mobile esports market is experiencing considerable development, with worldwide influences. Since the fieldwork for this study is mainly carried out in China, it is particularly significant to examine mobile esports when exploring women's participation in esports.

Even though the rapid development of mobile esports is attracting scholars' attention, the amount of current research focusing on mobile esports is limited, let alone women's participation. Beyond academic research, the increasing population of women and its considerable influences in mobile esports has been noticed by the esports industry itself. For instance, iResearch (2017) reports that more than 54% of players of *Honor of Kings* (*HoK*) (Tencent Games, 2015), a typical mobile MOBA game. Recognising the limitations of understanding participation in esports solely through looking at playing time, the fact that women play *HoK* for 40 hours per week on average indicate a high degree of participation. Clearly, women's participation in mobile esports is challenging the gender stereotype of women as a marginalised group in esports play. Current research can provide limited explanation regarding the increasing number of women in mobile esports. One of the notable works focusing on features of mobile games was carried out by Jeong and Kim (2009), who point out the playing style of mobile games is simpler than computer games. Meanwhile, compared to computer games and console games, they indicate that mobile games allow players to play more flexibly and the game device itself is more accessible for players.

However, these ideas have not been discussed in the context of esports and have not been investigated in relation to women who play esports games. Relating to the development of mobile esports in China, Zhao and Lin (2020) highlight that both the government and industry are encouraging the development of mobile games, which provides the other dimension to investigate how women are attracted to mobile esports.

In other words, it is worth exploring what efforts the industry has made to attract women and whether those efforts work. Even though it is inevitable to say that the current data only shows the narrowing down gender gap in mobile esports participation, the persisting gender gap in PC esports is obvious. Under this situation, exploring women's participation in mobile esports can provide this research more comprehensive understanding of women's participation in esports as a whole. In detail, has mobile esports improved women's participation in esports? If so, how have women been attracted and how does that attraction differ from that of PC esports? At the same time, if women's participation in esports has been improved by the popularity of esports, has esports culture been influenced? All these questions remain unanswered by current game studies.

Moreover, previous studies have linked mobile games to casual games (Koivisto, 2006; Furini, 2007). Kuittinen et al. (2007) point out that mobile platforms enable players to play games anytime, anywhere, which is important for casual games. Kuittinen et al. highlight that labelling mobile gaming as casual gaming is not only accepted by scholars but also by the industry in some instances. Schröter (2016) points out the hardcore gaming, which includes sports games and competitive games, is still dominated by men. While there is a trend of connecting mobile games to the genre of casual games, it is possible for both the academia and the industry to have a misunderstanding of mobile esports players as casual players. Indeed, from an industrial perspective, the report released by NewZoo shows that only 31% of esports enthusiast are women (2016). More recently, Newzoo's (2017a) examination of the 2017 Global esports Market Report provided further clues regarding women's participation. According to this report, the esports enthusiast audience tends to be young men, with women only making up 29%. The data suggests that the majority of women remain non-enthusiasts. In other words, the increasing number of women in mobile esports games has not affected the idea that the majority of esports enthusiasts are men.

Since esports' migration to mobile platforms is stimulating women's participation, it is necessary and pressing to explore whether mobile esports can be defined as casual gaming. Furthermore, relating to the research aim of this thesis, if mobile esports has managed to stimulate women's participation in esports, is that evidence enough to

confirm the idea that women are casual players? In order to present a comprehensive understanding of women's participation in esports and the role of gender in esports culture, this thesis adopts mobile esports as an important research dimension. The questions mentioned above are explored in detail in this thesis.

Conclusion

This chapter has reviewed existing game studies associated with gender issues. The preceding studies make several noteworthy contributions to the exploration of women's participation in esports and the role of gender in esports culture. Because esports research is still in its infancy, the first part of this chapter focused on video game studies rather than esports studies specifically.

A common description of video gaming culture is that it is male-dominated; women appear to be subordinate players. This is to say women's participation in video games is likely to be influenced by men's participation. Previous research has established the argument that social interaction and communication is the key motivator for women to take part in computer games (Yee, 2006; Hayes, 2005). At the same time, it has been shown that computer games involving high levels of competitiveness and violence appear to be less attractive to women than to men (Kafai, 1996; Bryce & Rutter, 2003b). In terms of the difficulties women meet in playing video games, having less familiarity with computer technology and lacking in-game skill mastery have been suggested as two of the most influential obstacles faced by women (Yates & Littleton, 1999; Quaiser-Pohl et al., 2006). Those research outcomes clearly suggest that exploring women's preferences and motivations, as well as the difficulties they encounter in playing esports, is an important path for this study.

Additionally, women's participation in video games has been revealed to be influenced by video game culture. Traditionally, it has been argued that computer gaming is a male-dominated field (Taylor, 2009; Kafai et al., 2008) and that gender-based discrimination negatively affects women's participation (Salter & Blodgett, 2012). Specifically, a number of studies have explored the masculinity of video games by looking at game design (Kirkland, 2009; Salter & Blodgett, 2012), the emergence of

feminine games (Nakamura, 2005; Dickey, 2006) and the gaming community (Salter & Blodgett, 2012). Those studies reflect that the video gaming culture is a typically masculine one, and this not only influences women's participation negatively, but also marginalises women within the gaming culture. In exploring women's participation in esports, it is inevitable and necessary to focus on the influences exerted by the esports gaming culture. From the initiative perspective of women themselves, the engagement with esports community has been suggested to be the other important dimension of understanding players (Blight, 2016). The strategies women adopt and the degrees to which they engage with the esports community can influence their self-identities as esports players.

However, when it comes to the specific field of esports, previous research outcomes have clear limitations. The most obvious of these is that the majority of those studies focus on the broader context of video games, so their validity and applicability to the esports field has yet to be convincingly demonstrated. Video games such as MMORPGs include high levels of interaction and exploration in game play, but little discussion of women's participation in competitive games has been presented. Moreover, esports culture is an area that is seriously underexplored. The limited research on esports culture and its relationship with women's participation has restricted the understanding of the gender issues in esports.

Both the academic studies and industrial reports on the role of gender in esports indicate that online streaming, mobile esports and the professionalisation of esports are three vital dimensions this research should pay attention to. Online streaming is becoming an influential means of players' indirect participation in esports. As a core component of the online esports community, women's engagement with online streaming demands attention. According to the *2017 Global esports Market Report* (NewZoo, 2017a), women occasional viewers of online esports streaming increased by 10% in 2017, with women accounting for 39% of all viewers. Meanwhile, women only made up 29% of all esports enthusiast viewers. The limited number of women enthusiast viewers is not in line with the increasing number of mobile esports players, and the reason for this discrepancy is currently unclear.

The professionalisation of esports has received some attention from scholars (Sveningsson, 2012; Agha, 2016). The development of professional esports tournaments not only differentiates esports from other computer games, but also establishes its relationships with sports. Professional esports play makes the gender gap in esports more conspicuous. Women are absent from professional esports play and their absence has been attributed to a lack of the necessary in-game skill mastery (Sveningsson, 2012; Agha, 2016). This study explores the gender gap in professional esports play. However, in line with discussions presented in earlier parts of this chapter, this research emphasises that the gender gap in professional esports play results from a number of factors, not only the gender gap in in-game skill mastery.

In summary, rapid development is occurring in the gaming industry, and esports is now one of the main game genres. Methods and platforms of participation are becoming increasingly diverse due to improvements in media technology. In terms of gender issues in esports, the current literature is insufficient to provide comprehensive explanations towards the gender gap in esports participation. Moreover, the development of professional esports is differentiating esports from traditional computer games and establishing a closer association between esports and sports. Women's participation in this area is underexplored, as are the ways in which the inclusion of women in professional esports influences esports culture. In addition, the development of mobile esports is attracting an increasing number of women. However, current academic knowledge about mobile games continues to suggest that mobile games are casual games. Therefore, by building on the research outcomes discussed in this chapter, this study focuses on women's preferences, motivations and difficulties related to participating in esports. At the same time, this study concentrates on how the development of mobile esports influences women' participation in esports. Furthermore, this study pays attention to gender issues in professional esports play. By carrying out fieldwork to explore these aspects, this study aims to shed light not only on women's participation in esports, but also on the role of gender in the current esports culture.

Chapter 3
Methodology

Introduction

Before presenting details of this study's methodology, it is necessary to again mention the research objective. This research aims at exploring women's participation in esports and the role of gender in esports culture. Game studies have paid attention to a similar problem in the field of computer games, and empirical research has been proved to be an effective way to reach the research aims (Miller et al., 1996; Yee, 2006; Bilgihan et al., 2013). This is mainly because empirical research provides the opportunity for researchers to collect primary data and engage in direct communication with players. While the existing literature provides limited knowledge of women's participation in esports, empirical research is more effective in collecting unmodified data than other research methods, such as desk research.

With the careful consideration and design, the methodology of this research involves both quantitative and qualitative methods. On the one hand, quantitative data can provide this study with numerical information describing the basic situation of women's participation in esports, such as the ratio of female to male esports players. Moreover, through an online questionnaire, it is possible for this research to verify existing knowledge on women video game players in the area of esports participation. For instance, by asking about players' motivations for participating, it is possible to evaluate whether the social motivation is particularly associated with women in esports play. On the other hand, due to the lack of empirical data on esports players, particularly women, quantitative research method is hard to provide me opportunities to explore undetected elements that are associate with women's participation in esports. Thus, qualitative research methods appear to be important for this research to meet research aims. In detail, this research involves six focus group interviews to collect detailed

information of gender issues in esports play through direct communication with esports players. Last but not the least, this research carried out in-depth interviews with industrial professionals aimed at exploring gender issues from an industrial perspective. This chapter presents the detailed discussion and design of each method, including the validity, rationality, sampling, data collection and the detailed design.

It is important to note that in the actual research process, all the research methods were not employed at the same time. The questionnaire was published first to collect basic information about esports players. Using the preliminary analysis of the data collected from the questionnaire, I designed question guides for both the focus group interviews and the in-depth interviews. This was because the current knowledge about women's participation in esports is limited. Thus, publishing the questionnaire first could provide further clues for carrying out the focus group interviews and in-depth interviews. For instance, the data gathered in response to Question 9 suggests that both men and women are motivated by social interaction. Thus, rather than linking the motivation of social interaction to women in particular, I presented this motivation as a core topic in all-male focus group interviews as well as in all-women groups. The detailed discussion of this process is presented in the following part of this chapter. Moreover, at the stage of carrying out the focus group interviews, I only invited players with experience of playing Multiplayer Online Battle Arena (MOBA) games. This is because different kinds of esports games have different gameplay. Inviting players with experiences playing the same game genre can improve the efficiency of data collection in focus group interviews. After this the limitations of these three research methods are taken into consideration. To finish off, this chapter presents discussions of ethical issues that may arise in the fieldwork and potential solutions to these ethic issues. Detailed design of the questionnaire and questions guild for focus group interviews are presented in Appendix 1 and Appendix 3 of this thesis.

Design of the questionnaire

In order to evaluate gender difference in playing esports and players' attitudes towards esports, I developed a questionnaire to collect both quantitative and qualitative data. In fact, adopting questionnaire to collect primary data has been widely confirmed to be an

effective method in video game research (Lucas & Sherry, 2004; Terlecki et al., 2011). By referring to the previous computer gaming studies, it can be seen the suitability of quantitative approaches for objectives of this research. In 2006, Yee carried out a survey of 30,000 users of MMORPGs to evaluate the significance of 40 motivations verified by previous studies. Based on Yee's work, Williams (2009) carried out another survey to explore player's motivation of participating in MMOs. Williams's work provides a deeper insight of gender-based differences in participating in computer gaming by taking gender as an independent variable. Bilgihan et al. (2013) further adopted questionnaire as the method to explore the gender gap in computer genre preferences. In detail, Bilgihan analysed players' preferences though their participation behaviour. For instance, questions like 'How often do you play strategy video games?' helped Bilgihan explore players' preferences of game genre. In fact, quantitative research methods are capable of providing data to evaluate the correlation between the gender gap and women's participation in esports. Moreover, by using open-ended questions I was able in the questionnaire to collect information in brief open text format, which diversified the data collected. In this research, a questionnaire is designed to explore players' motivation and their engagement with both the esports playing and esports online streaming.

Design, Sampling and Data Collection

In order to improve the accuracy and authenticity of collected data, a pilot of the questionnaire with ten esports players was carried out before the questionnaire was distributed more widely. Potential questions that are ambiguous, complicated and useless were identified at this stage and necessary improvement was conducted. In addition to the questionnaire, I designed the semi-structured interview questions with careful consideration. It is because most of the key factors influencing women's participation in esports have not been identified by current research yet. For instance, in order to identify women' motivations and preferences in participation in esports, question nine not only listed the core factors which have been identified by traditional computer game studies but also left a space for any further responses. The limitation of this approach is obvious while it is highly possible for the audiences to choose a

motivation instead of writing a new one. This limitation is anticipated to be reduced in focus group interviews by raising the discussion of participate motivations.

Following the pilot studies and my own reflections, the questionnaire was modified several times before published officially. The final questionnaire includes twenty questions and can be divided into three parts. The first part, which includes question 1 to 6, consists of demographic questions, which aims at presenting a general picture of the esports player. The second part includes question 7 to 14. This part concentrates on investigating the gender gap in participation motivations, experiences of gender discrimination and players' attitude towards women. In this part, question 8 and 9 are designed as opened questions. Question 8 is designed to collect detailed information of esports games participants play. Question 9, as mentioned above, providing extra space to invite any possible motivations that the literature review failed to identify. The third part, which include question 12 to 20, aims at exploring eSport players' engagement level with esports games, esports online streaming and esports teammates. The data collected from this part is anticipated to provide this study information about the different degree of participation between men and women. The questionnaire is presented in the Appendix 1.

The target population of this questionnaire was mainly composed of Chinese respondents, who have experiences of participation in esports. Two problems need to be mentioned here. Firstly, setting the age limitation is due to the adoption of the Chinese Online Game Fatigue System, which was published by The General Administration of Press and Publication of The People's Republic of China (2007). This system is widely adopted in China to prevent online game addiction among teenagers. This regulation was compulsively implemented for Chinese online digital games, which means individuals under 18 years old have very restricted opportunity and little experiences in participating in esports. Thus, to involve players under 18 years old have limited contribution to this research. Since this questionnaire is published online as a public survey, it is possible to collect data from people who under 18 years old. To solve this problem, a statement of the age limitation is shown in the cover sheet of this questionnaire. Besides, question 1 provides an option of 'Under 18 years old'. All responses under 18 years old will be marked as invalid data and will not be recorded for further analysis. Secondly, even though the popularity of the term 'esports' is

increasing due to its rapid development, it is still possible for the participant to be confused since there is still lack of an accurate and widely accepted definition of this term. Thus, a brief definition of the 'esports' used in this research was presented on the cover sheet to help participants to confirm if they have experiences of participating in esports. The definition of the term 'esports' is based on literature reviews and the discussions presented in the Introduction.

All the participants are selected randomly to improve the generalizability of further analysis. At the stage of data collection, this questionnaire has been translated into Chinese and been published as a public survey on WenJuanXin, the most popular Chinese online survey platform. Furthermore, in order to increase the number of participants, the link of this questionnaire was sent to potential target population by email and been posted on three Chinese social platforms with the hash tag #esports# including *WeChat* (Tencent Holding Ltd., 2011), *Sina Weibo* (Sina Corporation, 2009) and Tencent *QQ* (Tencent Holding Ltd, 1999).   Finally, 256 responses enrolled in the *Questionnaire of esports players' information and personal experiences*. By primarily filtering the data, 252 responses (n= 252; 160 men, 92 women) are identified as valuable data. The four missing responses are due to one refusing to present their gender and the other three responses reporting non-esports games in question 8. Even though this research did not pay particular attention to the young adults, the data indicates that the esports players are mainly composed of the young generation. 63.3% (n=162) of the participants ranged in age from 18 to 25 and 34% (n=87) ranged in age from 26 to 30. Meanwhile, no participant under 18-year-old was detected from their responses. One significant data is 87.1% of the participants are unmarried and only 32.7% of them were in a relationship. The detailed analysis of the data will be presented in following chapters.

Focus Group Interview

'Human actions cannot be understood unless the meaning humans assign to those actions is understood' (Marshall & Rossman, 2014, p.101). When talking about women's participation in esports, their 'thoughts, feelings, beliefs, values and assumptions are involved' and qualitative methods can facilitate a deeper and

fundamental perspective of the target population. In Sundén and Sveningsson's work of gender issues in online gaming culture, participant observation was adopted as the core research method and manage to present exhaustive discussions, including players' passion in participating in computer games and their relationship with game technologies (2012). This research proved the efficiency of qualitative methods in video game research, particularly effective in collecting data about players' subjective experiences. In this thesis, qualitative data appears to be vital. On one hand, little research paid particular attention to obstacles women met in their participation in esports. This means that even though gender stereotypes identified in the video game studies can reflect potential difficulties that women may meet in participate in esports, how and to what extent those elements influences women in the field of esports is not clear. On the other hand, the rapid development of video games is challenging existing knowledge of women esports player and their participation in esports appear to be complicated. Thus, it is necessary to gather original and qualitative data by communicating with esports players directly. Therefore, focus group interviews are adopted to investigate women eSport players' interpretation of their experiences. Compared with other methods of collecting qualitative data, such as observation, focus group interviews provide the opportunity for interviewees to describe not only their playing experiences, but also their subjective feelings of those experiences. In addition, qualitative data collected from focus group interviews will provide diverse narratives that add more nuanced information to that garnered by the questionnaire.

Validity and rationality

Six focus group interviews were carried out to collect qualitative data from esports players. In fact, different authors have measured focus-group interviews in a variety of ways in the field of video gaming. Miller et al. adopted this method to explore women's preferences in software design and their preferences towards computer games (1996). A later study carried out by Poels et al. (2007) explored the categorization of game experiences by using focus group interviews. Poels et al. collected plentiful qualitative data of players' preferences and feelings in playing digital games. More recent research, focusing on the influence of social processes that exist in playing video games, further

proved the focus group is an effective method to identify the themes related to an individual's gaming experiences in participating in group video games (Kaye & Bryce, 2012). The successful application of focus groups in video game studies, especially when gender issues, social networks and personal experiences are involved, make it reasonable for this study to adopt the qualitative method to gather data.

A major advantage of focus group interview is that this method leaves more space for interviewees to express themselves, which is ideally suitable for research focusing on an underexplored field. Most importantly, in the communication that happened between the focus group participants, important issues about women's participation in either esports or video games were allowed to emerge. In fact, even though the women's participation in esports has been noticed by scholars (Keiper et al., 2017; Seo, 2016), the original data collected by present studies (Freeman & Wohn, 2017a&b; Kim, 2017) is far from sufficient to present a comprehensive understanding towards women' in video game, let alone their participation in esports. Thus, carrying out focus group interviews with existing esports players can collect original and abundant data for further analysis of this research. The other advantage of adopting focus group interview is that this method can promote the efficiency of understanding the women esports player since it allows this study to collect opinion from more than one person at once.

Design, sampling and data collection

As Marshall and Rossman advised, the focus group interviewees are 'unfamiliar with one another and have been selected because they share certain characteristics relevant to the study's questions' (2014, p.153). In this research, the target population of focus group interviews are individuals with experiences of playing esports and includes both men and women. Specifically, the target population of the focus group interviews is esports players who have experiences of taking part in MOBA games, such as the *Dota 2*, *LoL* and *HoK*. This is due to the consideration of collecting data accurately and effectively. Since different esports games have different game play, it is possible for interviewees to have difficulties communicating with each other. Thus, focusing on

MOBA game players can increase the accuracy of the data and the efficiency of carrying out the focus group interviews.

Moreover, As Stewart and Shamdasani (2014) point out, identifying a sampling frame indicates 'a list of people … that the researcher has reason to believe is representative of the larger population of interest'. At the stage of carrying out focus group interviews, this research only involved MOBA game players. First of all, the term 'esports' encompasses a diverse array of competitive digital games. Choosing esports players who participate in the same genre of esports can reduce the likelihood of miscommunication and increase the efficiency of data collection while operating a focus group. Second, as discussed in the introduction to this thesis, the definition of esports is still debated. However, defining MOBA games as esports, on one hand, matches the esports definition presented in the research; on the other side, MOBA games have been widely regarded as esports games by both players and the industry. In the current academic studies, the core features of esports identified are competitiveness and its connection with sports, the internet and the computer interface. For instance, in the academic realm, Johnson et al. define MOBA games as 'streamlined, competitive games that encourage less autonomy and more frustration and challenge' (2015, p.2270). Third, the core part of the esports industry is dominated by MOBA games. Looking at the ticket revenues of esports tournaments in 2016, *LoL* and the *Dota 2*, which are typical MOBA games, generated the most ticket (Newzoo, 2016). Furthermore, the annual final tournaments of both *LoL* and *Dota 2* combined generated more than $25.8 million in prize money in 2016, making up 56% of the global esports prize money for that year (Newzoo, 2017c). Moreover, relating to the research objective of this research, the gender gap in MOBA games is conspicuous, as has been discussed in detail in the literature review. Given all the considerations presented above, looking into women's experiences and feelings participating in MOBA games is an effective and appropriate way to meet the research objectives, and the MOBA game was adopted as a typical esports activity to help this study concentrate on the core target population accurately.

Interviewee of the focus group was randomly selected through posting both online advertisement on *WeChat* and *QQ* and offline advertisement in two Chinese Universities in China (Chengdu Sports University, Sichuan University). A total number of six focus groups were conducted including two all-men group, two all-women group and two mixed-gender group. The first mixed-gender group was composed of 4 men and 2 women while the second mixed-gender group was composed of 3 men and 3 women. All of the six focus groups are composed of 6 to 7 people and each of the focus groups interviews lasted 40 minutes to one hour. A total number of 39 interviewees were involved in focus group interviews. The detailed information of all of six focus group interviews is presented in Table 1.

Table 1. Focus Group Interviewees

Group Number	Group Category	Participants		Total Number
		Men	Women	
1	All Women Group	n/a	7	7
2	All Women Group	n/a	6	6
3	Mixed-gender Group	3	3	6
4	Mixed-gender Group	4	2	6
5	All men Group	7	n/a	7
6	All men Group	7	n/a	7
				Total : 39

Dividing the target population into three types of groups is based on the consideration of participants may be more willing to share their feelings and experiences if they share same characteristics. For instance, the in-game skill mastery was identified to be an influential factor for women's participation in video games and there is a trend that women present a lower level of mastery (Okazaki et al., 2008; Merikivi et al., 2017), thus, women in the all-women group may be more willing to talk about this issue since they are sharing same gender and are facing some of the same stereotypes. Meanwhile, the differences appeared among different groups are valuable data for the further analysis since these pieces of evidence may reveal unexpected information.

Prior to data collection, all participants received an explanation of the research and a consent form was asked to be completed (Appendix 4). All the focus groups were voice

recorded and field notes on interactions and other clues were taken in order to analyse data within the context. At the stage of data analysis, Chinese was the language used in focus group interviews and all the data was analysed in Chinese. The author only translates texts that has been quoted and discussed in this thesis. This is in order to improve the efficiency of the research.

In the process of coding, a brief codes form has been established by referring to the previous literature which is presented in Table 2. This form is aimed at 'provide codes that will likely emerge in the real-life data' (Marshall & Rossman, 2014, p.218).

Table 2. The theme in focus group interview

101	Social Intercourse
102	Gender stereotypes
103	Masculinity in esports culture
104	Positive influential elements (preferences & motivations)
105	Negative influential elements
106	Fear/Difficulties of participation
107	Neutral elements
108	Strategies adopted to solve difficulties
109	Gender in esports culture
110	Elements related to Chinese esports particularly
111	Time and location of playing mobile esports
112	Others

These themes are concluded by considering both existing research outcomes and the objective of this research. Specifically, codes 101 to 103 are elements influencing women's participation in video games. As discussed in the literature review, these three elements appear to be important in understanding women players. Codes 104 to 108 are

in line with the research questions of this study. On the one hand, these codes explore Research Question #2, which looks at women's motivation and preferences of participation. At the same time, they shed light on Research Question #1, which is about the difficulties women meet in participating in esports and the strategies they adopt. In addition, codes 109 to 110 are designed to explore elements originating in esports culture and elements associated with the geographic context of this study. Code 111 was generated following the analysis of the data collected from the focus group interviews. This coding is related to understanding players' participation in mobile esports games. The form of these codes is anticipated to guide the further data analysis but not present all the coding may appear in the actual analysing process. Thus, a coding named 'Others' was designed for any potential issues raised from the data analysis which are not noticed before carrying out the analysis.

In-depth interview

One of the core objectives of this research is to explore women's participation in the esports industry. To meet the research target, in-depth interviews are adopted to collect data from industrial professionals. This section firstly presents the discussion of the suitability of adopting in-depth interviews to meet the research aim. Secondly, the detailed design of the in-depth interview will be presented. Thirdly, detailed processes of data collection and a brief introduction of the data are presented.

Validity and Rationality

Carrying out in-depth interviews mainly aims at collecting information about the role of gender in esports industry rather than gathering data of generalized participation in esports as players. Operating in-depth interviews contributes to gain deep understanding towards women in esports since this research method 'allows the interviewer to deeply explore the respondent's feelings and perspectives on a subject' (Guion et al., 2001). Relating to this research, the reasons for adopting in-depth interviews with industrial professionals could be listed as follows. First of all, as discussed in the chapter of literature review, gender issues in esports industry are

remain under-explored. Communicating with industrial professionals directly provides this research with the opportunity to gain insight into the role of gender in esports itself. That raw and original information is significant for this research while esports research is still in its infancy. Moreover, since one of the most important parts associated with esports industry is the esports tournaments, to consult the viewpoint of women's participation in professional league from an industrial perspective instead of gathering qualitative data from amateur women esports player, who have no experiences of participation in professional esports league, is significant to this research. Last but not least, the esports industry plays an important role in influencing esports culture. For instance, how do industrial professionals define women in this area is vital to evaluate the role of gender in esports culture. Thus, in-depth interviews with the industrial professionals is a valuable research method to meet research objectives.

Design, sample, data collection

The interview in this research is designed as semi-structured interviews, which was described by Galletta as a method to 'specific topics related to the phenomenon of study while leaving space for participants to offer new meanings to the study focus' (2013, p.24). In fact, the majority of the reference material for this research is concluded from video game studies and the validity of those studies has not been identified in esports. Thus, semi-structured interviews enable this research to invite unexpected, abundant and deep data from communication with industrial professional. For instance, one of the core parts of esports is the off-line tournament and its commentary. This phenomenon was difficult to observe in traditional computer games and little studies paid attention to it. By communicating with professional players and commentators, it is anticipated to collect data from their personal experiences and subjective feelings. Therefore, semi-structured interviews can provide space for the interviewees to express their thoughts, feelings, experiences and attitudes, which are not clearly identified by previous studies.

Further, the designed question in the interview organized by the 'research question, analytical framework and interpretive tradition' (Galletta, 2013, p.72). Towards the

design of the in-depth interview, this research adopted the semi-structured format, using open-ended question rather than a rigid structure of predetermined questions to guide the process of interview. On the contrary, all in-depth interviews were designed specifically in terms of the speciality of each interviewee. This is because the industrial professionals may have entirely different information to share due to their different occupations. Specific question guidelines should be designed with the consideration of interviewees' individual experiences and the overlap between their work and research aims. However, a universal guideline is still necessary to help the in-depth interview concentrating on research objectives accurately. The guideline mainly includes the following three aspects: a). consideration of the role of the women in audience targeting and esports related activities. b). the difference of gender issues between traditional computer games and esports. c.) their opinions about women's participation in professional esports tournaments.

The sampling of the in-depth interview was not random. Instead, the sampling process followed the qualitative principle which described by Morse as 'selecting the most experienced and knowledgeable informants' (1990, p.141). The potential target population of the in-depth interviews includes the professionals previously or currently working in the esports industry.

Table 3. Information about participants of in-depth interviews.

Gender	Men (8)		Women (2)	
Nationality	Chinese (10)			
Position	Company Stockholder (3)			
	Professional esports player (2)			
	Off-line league commentator (1)			
	Key project leader (4)			
Interview Format	Face to face (6)	E-mail (3)		Phone (1)

The Table 3 presents a brief introduction of the ten interviewees of the in-depth interview. In the actual process of choosing the target population, efforts were made to involve more women professional players, however, men interviewees were ultimately greater in number than women. I believe that this is a representation of the gender

imbalance in the esports industry. Not only are the eSport games dominated by men but also the esports industry is a masculine field. This result is not surprising since it is in accordance with the gender gap in video game industry. For instance. women occupying 27.3% of people working in video game industry in China in 2018 (CNG Data, 2019). At the same time, women only occupied 28% in video game industry in the UK by 2020 (UK Interactive Entertainment, 2020). Currently, there is very limited data can illustrate the gender gap in esports industry clearly. However, the gender gap in video game industry implies the gender gap in interviewees of this research is a reflection of the gender gap in esports industry. The detailed discussion of this issue is presented in Chapter 7.

At the stage of data collection, both the online interviews, such as e-mail interview, phone interview and face-to-face interview were involved in this research. The data collected from the email interview is less comprehensive than the face to face interviews and the phone interview, which is a limitation of the shortage of real-time communication. Two follow-up interviews were carried out with email interviewees in order to gain supplementary information. At the same time, all the in-depth interviews were voice recorded and then transcribed into text in Chinese for further analysis. In accordance with data collected through focus group interviews, this research only translated quotations in this thesis into English.   In addition, interviewees' work-place experiences and their profession were recorded briefly since this information is important for further evaluation of collected data. The information associated with interviewees' working experiences and job is required in in-depth interviews but was used in further analysis with strict restriction to ensure the protection of personal identity. The detailed information of interviewees of in-depth interviews is shown in

Limitations

According to discussions presented above, the validity and rationality of methods adopted in fieldwork have been discussed. However, there remains to be limitations in the research methodology. The first limitation is that the majority of the responses involved in this research is Chinese. Even though abundant data has illustrated Chinese esports industry and players can provide this research representative data. However,

cultural variations among the different demographics may reduce the universality of research outcomes of this study. For further research involving research outcomes of this study, possible demographic influences should be taken into consideration.

The second limitation is that scholars point out interviewees may be less willing or comfortable to share their information for complicated reasons (Marshall & Rossman, 2014). This phenomenon might occur in the focus group interview because the gender-based discrimination is involved and may stimulate interviewees' painful feelings, especially in mixed-gender focus groups. Furthermore, it is possible for the interviewees to hide, modify or overstate the experiences they have. As such, a carefully organized set of focus group interview questions and topics is important to assure the aims of this study. The detailed question guide of the focus group interview is presented in the Appendix 3.

Ethical issues

The primary possible ethical issue in this fieldwork is protecting information associated with participants' privacy and personal identity (Marshall & Rossman, 2014, p.155). In detail, voice recording was adopted in both focus group interviews and in-depth interviews. As Padgett argues, the 'risk of loss of privacy and confidentiality' would influence the popularity of adopting voice recording in interviews due to ethical concerns, and 'the advantages of video recording are noteworthy if the study participants… … are amenable' (2016, p.133). Besides the usage of voice recording, the protection of interviewees' privacy and identities is obvious in the in-depth interview due to the interviewees' working experience and job position was involved. The information will increase the possibility of identifying the interviewees by readers. Thus, this research only presented interviewers name with their permission. Besides, interviewees who are not willing to share their names will be presented in this research with a nickname. Apart from those interviewees in in-depth interview, all other participants in this research participate anonymously. Further, all the participants in this research received a brief introduction. This introduction includes three aspects:

1.) the objective of this research project and a brief summary of the interview.

2.) all these interviews will be voice recorded and the field notes will be taken for further data analysis.

3.) all the collected data was stored in my personal computer and was not shared with any third party.

4.) issues related to their personal identity will not be required and all the data will be anonymous once they asked for it.

At the bottom of this introduction, a box was presented for ticking to ensure they are fully aware the process and the usage of the data. The consent form for the interviewees is presented in Appendix 4. In the actual research, the 10 interviewees authorised the use of their real names in the thesis during the interviews, hence the choice to use their real names rather than anonymise the data appearing in the following account. Regarding the participants of the focus group interviews, it is not especially meaningful to record their names due to the large number of participant (39 in total). It would be difficult for both the author and readers to remember those names. However, I recorded their occupations, such as 'student', 'teacher' and 'designer' whenever the participants allowed me to. Otherwise, the interviewees are labelled as 'anonymous', without any information likely to identify them.

The other ethical issue related with this research is the uncomfortable experiences that may arise during the interview since this research involves in issues of gender discrimination. It is possible to recall negative memories, such as harassment or verbal aggression which was identified in previous studies (Dietz, 1998; Miller & Summers, 2007). It is necessary to manage 'the potential for pain and anguish when the person interviewed shares painful experiences' (Marshall & Rossman, 2014). Considering that interviewees may feel uncomfortable when recalling the negative experiences in participating esports or esports online communities, they are entirely permitted to withdraw from the interview whenever they are unwilling to continue. Moreover, e-mails were sent to all interviewees to follow up any ethical issues this project may arise and further actions are taken into consideration if necessary. All the procedures adopted in the fieldwork is following the ethical guide of The University of Glasgow. Specifically, with the guidance of *College of Arts Ethics Policy.* At the same time, the

complete permission form was obtained by the research before the actual fieldwork started.

Conclusion

To sum up, this research applied a questionnaire, 10 in-depth interviews and 6 focus group interviews to gather both quantitative and qualitative data. By carrying out a questionnaire, it is anticipated to explore the gender gap and gender stereotype in esports by taking advantage of the numerical data. Moreover, the preliminary analysis of data collected from the questionnaire provided further clues to design the question guides for the further interviews. For instance, data from the questionnaire suggests men and women are similarly interested in social interaction in playing esports. Thus, questions associated with social interactions were designed in the question guides for all male, female and mixed-gender focus groups. The focus group interview aims at revealing potential issues influencing women from participating in esports both directly and indirectly. By communicating with esports players directly, it is anticipated that I will be able to explore women' motivations, preferences, difficulties they met and the strategies they adopted in participating in esports. Prior to data collection, potential participants were contacted by e-mails, meanwhile, a brief introduction of research was sent to them. Furthermore, the in-depth interview aims at investigating the role of the women in esports from the industrial perspective. At the same time, in-depth interviews aim at exploring women's professional participation in esports tournaments.

During the process of data collection, a voice recorder was used, and field notes were taken. The analysis of data from questionnaire was taken advantage of the SPSS (IBM, 2009). Analysing data in SPSS is an effective and accurate method. The analysis of data from focus group interviews and in-depth interviews are mainly processed in Word (Microsoft, 1983). The coding tree presented in the first part of this chapter is a guideline for analysing process.

Limitations are evitable in this research and are worth to be noticed. Necessary procedures were adopted in the data collection process, such as pre-coding and designed question guides. Those procedures can reduce negative influences exerted by

limitations. Besides, potential ethical issues of the fieldwork have been discussed and solutions have been taken into process to ensure this research meet the ethical guide of the University of Glasgow. When a project involves gender issues, it is a challenge to both the target population and the researcher. As Mertens points out, researcher's 'strong personal beliefs' towards gender (2009, p.483) may lead the research vulnerable to bias. In this project, the gender stereotypes identified by previous studies were regarded as a guide for the research approach. However, in the actual process of carrying out fieldwork I remained committed to keeping the openness of interviews and focus group conversations in order to gather all the possibilities that have not been explored yet.

Chapter 4

Difficulties women encounter when participating in esports

Introduction

While concentrating on the gender gap in video games, one of the most common way is to explore elements that deterring women from participation. As the body of research on women in the digital gaming field has developed in past decades, the factors deterring women from playing video games have been largely revealed. Elements such as technology engagement, in-game skill mastery and gender stereotypes have been identified as influences on women's participation in video games. For a long time, these findings provided both academia and the industry abundant knowledge to understand women players. Moreover, the continuously enriched understanding of women in video games has contributed to narrowing down the gender gap in this area. However, even though recent data shows that the number of women in video games keeps increasing (ESA, 2016), the gender gap in competitive video game genres remains notable. One of the core dilemmas is that our limited knowledge of the elements deterring women from playing competitive video games. Considering this key gap in the knowledge, the chapter pays particular attention to the elements alienating women from playing esports. At the same time, the findings and discussions presented in this chapter aim at providing answers to Research Question #1. In detail, by analysing the data yielded by the fieldwork, this chapter focuses on five dimensions that negatively influence women taking part in esports play have been identified, including 1). engagement with technology. 2).in-game skill mastery. 3). gender discrimination and stereotypes. 4). limited previous experiences. 5). the fault line in Chinese game culture.

The first half of this chapter discusses three difficulties identified by previous research as elements negative influencing women's participation in video games. First, in line with previous studies, technology engagement appears to be an influential element for women to play esports. However, it is worth noting the continuous improvement of

gender equality in technology-related areas. It is questionable whether computer related technology remains to be a difficulty for women to take part in esports. Meanwhile, the emergence of mobile esports provides new opportunities for women to enjoy esports. The popularity of mobile devices, such as smartphones, is limiting the negative influences of technology engagement in playing esports.

The second difficulty mentioned in this chapter is in-game skill mastery. Since esports are competitive video games, it is not surprising to see that in-game skill mastery is vital for players. In accordance with previous studies, this research detects that in-game skill mastery appears to be a difficulty influencing women's decisions to play esports. However, one of the notable questions invited by this phenomenon is why in-game skill mastery constitutes a difficulty for women wanting to take part in esports. In this chapter, I discuss how self-confidence is a key element in understanding women participants' comparatively weak performance in terms of in-game skill mastery. The third difficulty presented in this chapter is that gender stereotypes obviously exist in esports and those stereotypes are negatively influencing women's participation. According to the theory of Stereotype Threat (Steele & Aronson, 1995), stereotypes may reduce individual efforts to participate in a specific activity and may lead to disengagement from the activity. Thus, apart from discussing gender stereotypes themselves, this chapter makes a contribution to discuss how those stereotypes influence women's participation in the actual process.

The fourth and fifth difficulties discussed in this chapter were generated from data analysis of the fieldwork. Players' previous game experiences and China's game history and game policies are notable in understanding women's participation in esports in China. These two elements were not initially anticipated before carrying out the fieldwork. However, the development of the Chinese digital game industry and the fault line in China's game culture was found to negatively influence women's participation in esports to a certain extent. This is referred to as a 'fault line' because the development of console games was highly restricted in China before 2014 due to policy-related reasons. The highly limited development of console games has influenced the public's attitude towards video games more broadly and influenced their engagement with video

games. Video game culture remained a niche area in China before the emergence and development of online games. Moreover, women participants in this research appear to have little experience of playing video games. This background seriously limited women's participation in esports at the early stage of its development in China, which took place around the 1990s. Therefore, this study considers the unique features that have developed in the Chinese game world and significantly influenced women' participation in both PC esports and mobile esports.

It needs to be highlighted that even though this chapter presented five difficulties individually, they are all intertwined. For instance, the women participants' lack of previous game experience largely results from the history of Chinese gaming. This chapter presents limited discussion of the relationships among these five factors since the core objective is to explore the obstacles facing women in an underexplored field. Also, presenting those difficulties individually is the clearest way to present this research, particularly since esports research is in its infancy. In further research focusing on women's participation in esports, or even in the broader field of video games, the relationships between those difficulties should be taken into consideration.

Engagement with technology

Women's engagement with technology has been said to be weak (Lagesen, 2008) and has been argued to be one of the obstacles faced by women playing video games (Yates & Littleton, 1999). In line with previous game research, this study detected evidence suggesting that a comparatively low level of technology engagement is negatively influencing women's participation in esports.

Though analysing data collected from the questionnaire, direct evidence emerged that illustrates the gender gap in technology engagement. The influence of mobile esports was enormously obvious on the women who responded to the questionnaire. 191 valid responses were collected toward the question, 'What is the esports game you play most often?' (Question 8 in the questionnaire) 19 esports games were reported, including 17 games for personal computers (PC) and two for mobiles. This data suggests that the majority of current esports games are published for PC, but when gender was included

as an independent variable, an enormously obvious gender gap was detected regarding the platforms that esports are played on. Table 4 compares the numbers of PC esports players and mobile esports players by setting gender as an independent variable.

Table 4. esports players' participation through different devices.

	Only reported playing esports games on smartphones or tablets	**Reported playing esports games on PC terminal**	**Total**
Men	24 (18.6%)	105 (81.4%)	129(100%)
Women	41(66.1%)	21 (33.9%)	62 (100%)

Responses that include any PC esports games were classified under the category of 'reported playing esports games on PC terminal'. At the same time, responses that only mentioned mobile esports games were identified under the category of 'only reported playing esports games on smartphones or tablets'. It is apparent from Table 4 that almost two-thirds of women (66.1%) reported they most frequently play esports games through smartphones or tablets, while only 18.6% of men reported the same. It is inevitable to say that reporting playing mobile esports games only does not mean those respondents do not have experiences of playing PC esports. This data can be regarded as a reflection of men and women's preferences of playing esports on different platforms. Meanwhile, the gender gap is notable when it comes to respondents reporting that they frequently played esports games on different platforms. Different from women, the majority of men players (81.4%) reported playing esports on PC more frequently. Fundamentally, current studies suggest that mobile games are generally regarded as 'casual games' because they are comparatively accessible (Bell & Chalmers et al., 2006; Wei & Lu, 2014) and demand a lower level of in-game skill mastery (Okazaki et al., 2008; Merikivi et al., 2017). Accessibility has long been identified as a key element of technology engagement in game studies.

Technology engagement has been understood as access to game equipment (Schott & Horrell, 2000) and players' knowledge of game-related science (Bryce & Rutter, 2003b). Game equipment refers to the devices used to access video games. When it

comes to console games, articles have pointed out that women are more likely to play games through secondary access because men dominate the console devices (Henden et al., 2008). Although the proliferation of PC technology has reduced the gender gap that existed with console games, imbalanced gender distribution is still stressed by scholars as an element negatively influencing women's participation in video games (Henden et al., 2008). As an alternative to console devices and PCs, the popularity of mobile devices is significantly influencing women. Taking mobile phones as a key example of mobile technology, a current report shows that the total number of global smartphone users has reached 3.3 billion, meaning 42.6% of people in the world have smartphones (Bank My Cell, 2019). This considerable number of smartphone users indicates that the smartphone has become a very accessible device for esports play. At the same time, mobile smartphones are intertwined with individuals' daily lives to a considerable degree, and both men and women have a certain understanding of smartphones. The case of mobile smartphones clearly illustrates the considerable development and popularity of mobile devices. Players are more familiar with mobile devices and use them casually. Consequently, players' participation in esports has been improved through their ownership and knowledge of the game device.

In considering the gender gap shown in Table 4, the large number of women playing esports on mobile devices could be attributed to mobile devices limiting the negative influences of technology engagement for women. Apart from the numerical data, evidence from the focus group interviews further supports this outcome. When analysing the coding of 'Negative elements', the subtheme of 'Technology Engagement' appeared six times throughout six focus group interviews. Looking at the contexts in which the subtheme of 'Technology engagement' appeared, the most common was that women stated that they prefer mobile esports because they have little knowledge of playing games on personal computers, as some typical quotes show:

> *'I have no idea what I should do if I want to play PC esports. The smartphone is convenient since I just need to download an app. It's easy for me' (*Anonymous women interviewee in Focus Group 2, student*, 2018)*
> *'I know I need to download some platforms to play esports games, but that's too complicated. Playing on my mobile phone is easy.' (*Anonymous women interviewee in Focus Group 1, student*, 2018)*

Indeed, the convenience of mobile esports was shown to help it attract a drastically larger number of users than PC esports games. This result, on one hand, verifies that technology engagement is influencing women's participation in esports particularly. On the other hand, the negative influences of technology have been limited to a large degree by the development and popularity of mobile esports. Moreover, recent market reports suggest that mobile esports is developing into the largest genre of esports. According to JiGuang Data (2017), *HoK* has developed into the one of the most popular mobile esports games in China, with the number of registered users reaching 200.01 million in 2017. Meanwhile, the total amount of global esports players was 335 million in 2017 (NewZoo, 2018b). Just as the data shown in Table 4 illustrates that there is an increasing number of women in mobile esports, the considerable number of mobile esports players worldwide indicates a similar trend. Mobile esports is challenging the idea of esports as a male-dominated area, at least, women are becoming the notable group of esports players on the mobile platforms. Meanwhile, how and to what extent women's participation in esports has been influenced by the development of mobile esports needs further discussion. Chapter 6 will present a detailed discussion of how mobile esports manages to attract women and how women's participation in mobile esports challenges the role of gender in esports culture.

Non-immutable influences of technology engagement

What is worth highlighting here is that the influences exerted by technology engagement on women are not immutable. Upon further analysis of the qualitative data collected from the focus groups and in-depth interviews, one concern that emerged regarding technology engagement was that its influences on women should be understood as a dynamic process. The primary evidence for this emerged in the focus groups. Within all six focus group interviews, the subtheme of technology engagement appeared three times in the coding of 'neutral elements' and once in the coding of 'positive elements'. This means at least four of the focus group interviewees reported that technology engagement is not a problem for them in playing esports.

In all cases, the respondents reported that technology engagement is not a difficulty for them. Conversely, one interviewee said, 'Updating equipment is necessary for me. I changed my computer to Alienware because it is more suitable for playing the *Dota 2*' (women interviewee in Focus Group 2, student, 2018). This argument was echoed by another participant who plays *HoK*. She stated, 'I feel like my skill mastery has improved a lot since I update my phone to an iPhone 8 … playing *HoK* is a main reason for me to buy this new phone' (women interviewee in Focus Group 2, nurse, 2018). These quotes clearly indicate that technology engagement is not as influential as previous studies describes in deterring women from playing esports. Moreover, none of the participants are new to esports. Three of these four interviewees reported that they had been playing mobile esports for more than one year, while the other reported playing PC esports (*Dota 2*) for more than three years.

Such results recall arguments that understand players by distinguishing them into different types (Orji et al., 2014; Kuittinen et al., 2017). Kuittinen et al. (2017), separating the hardcore gamers and casual gamers. Hardcore gamers are defined as players who are highly involved and highly concentrated on gameplay experience, while casual gamers have relevant in-game skill mastery but are less involved. If the idea of distinguishing esports players into the hardcore and the casual is adopted, it becomes easy to understand how technology engagement influences women's participation in esports. As Table 4 shows, the majority of women in this research concentrate on mobile esports, indicating that technology engagement has negative influences on women' participation in esports. However, data collected in the focus group interviews illustrate that this influence mainly exists in the early stages of women's participation. Those pieces of evidence show the possibility of once women have a certain degree of involvement in esports, the influence exerted by technology engagement becomes less apparent. As was reported in the focus groups, to play esports continuously is one of the reasons for women in this research to upgrade their devices.

Technology engagement is an influential element towards women's participation in esports. Meanwhile, pieces of evidence are showing technology engagement may not be such a big issue as it was originally thought. However, this thesis emphasizes that gender gap may exist between esports games on different platforms. Even though mobile esports managed to improve women's participation in esports, it is necessary to

point out there are differences between mobile esports and PC esports. For instance, the requirement of in-game skill mastery, the diversity of game mechanics and the quality of game animations. As the Jiang, the founder and CEO of Luyang Technology (in-depth interview, 22nd December 2017), suggested in the in-depth interview, 'One of the challenges for both of the game developer and publisher is to attract more audiences while maintaining the existing core players.' A high level of involvement is strongly associated with familiarity with the game device. As Jiang mentioned,

> *'Console games are still attracting a large number of players today. It [a console game] gives players a very high-quality game experiences, like with the high-quality animations. This is not easy for mobile devices because of technological limitations… and most importantly, the cost of creating a mobile game and the intense competition of the current mobile game market'* (In-depth interview, 22nd December 2017).

This quote indicates that there may remain gender gap in players' participation in esports on different platforms. In the realm of esports, while mobile esports is attracting an increasing number of players, particularly women, it is worth considering how to balance the relationship between mobile esports and PC esports. As this research shows, publishing esports for mobile devices has improved women's participation in esports, and the influence of technology engagement is changing due to players' engagement with esports. Thus, the esports industry needs to understand the different types of players in order to attract more potential gamers and increase the possibility of turning casual esports players into hardcore players.

In summary, consistent with the existing literature, the results reported in this section illustrate that there are gender differences when it comes to the influence of technology engagement on players' participation in esports. Technology engagement previously proved to be an influential factor in women's participation in esports. However, such influences are not permanent and women's engagement with game-related technology must be understood as a dynamic process. First, the appearance and popularity of mobile esports has contributed to improvements in women's participation. This is vital for the current esports industry since the increasing number of women in mobile esports indicates that the majority of women esports player had previously been deterred from

participating by the negative influences of technology engagement. Second, further analysis of the focus group interviews indicates that the influences of technology engagement mainly occur during the early stages of players' engagement with esports. Specifically, as mentioned above, the woman interviewee who updated her phone in order to improve her performance in esports can be regarded as a typical piece of evidence.

However, from the perspective of the long-term development of the esports industry, how and to what extent technology engagement still influences women' participation in esports should be taken into consideration. Rather than emphasising how technology engagement deters women from either video games or esports, this thesis argues that technology engagement has considerable influence on women's participation in esports at its early stages, but when they become more involved in esports, when they can be considered hardcore players, the influences of technology engagement become neutral. This result somehow recalls Hartmann and Klimmt's (2006) argument that audiences who have a high mastery of computer technology may find it difficult to play specific games. Thus, the influence of technology engagement on women may be less significant than previous studies addressed. To identify the influences of technology engagement on women playing esports, it is important to evaluate their engagement with esports. For those hardcore women esports player, the influence of technology engagement is limited.

In-game skill mastery and women's confidence

Women's in-game skill mastery is the most controversial topic around women's participation in esports. In-game skill mastery has been associated with women's participation in video games for a long time. Women have been argued to be comparatively weak in controlling in-game skills (Hartmann & Kilmmt, 2006). In accordance with previous studies (Okazaki et al., 2008; Merikivi et al., 2017), the findings of this thesis indicate that women's in-game skill mastery in esports is comparatively lower than men's. This section presents data related to women's average low-level of in-game skill mastery in their current participation in esports. Moreover, this data indicates that the level of women's in-game skill mastery can influence both

their attitudes towards esports and their further participation. At the same time, confidence level is identified as being intertwined with women's in-game skill mastery.

To illustrate the first piece of evidence, it is necessary to refer back to Table 4, presented in the previous section. Table 4 not only reveals the relationship between women's participation in esports and technology engagement, but also implies that in-game skill mastery is another significant dimension to understand women esports player. Compared with PC esports games, mobile games require a lower level of in-game skill mastery (Okazaki et al., 2008; Merikivi et al., 2017). Professionals from the esports industry provides a direct argument to support this feature of mobile esports. As Liu, the event operation manager of *LoL*, mentioned,

> '*In PC MOBA games, the active operation system provides great space for the players to show off their excellent operations. It is fun as well as difficult. These spaces were compressed in mobile MOBA games and the primary reason is the limitation of mobile devices; players can only control the game from a tiny screen*' (in-depth interview, 17th January 2018).

Liu's argument clearly illustrates that playing mobile esports requires a lower level of in-game skill mastery. As Table 4 shows, 66.1% of women respondents reported having little experience playing PC esports in the questionnaire. Meanwhile, more than 80% of men reported playing PC esports. It is obvious that a lower level of in-game skill mastery may be another factor influencing women's participation in mobile esports.

More persuasive evidence was detected in the comparison between men and women's choices of MOBA games. According to the 191 valid responses to the question, 'What is the esports game you play most often?' (Question 8 in the questionnaire), the three most reported games were *HoK, LoL* and *Dota 2*. All three of these games are MOBA games while *HoK* is mobile esports games and the *LoL* and *Dota 2* are PC esports games. Figure 3 presents the different preferences of the men and women responded to the questionnaire.

Figure 3. Number of players in three MOBA games
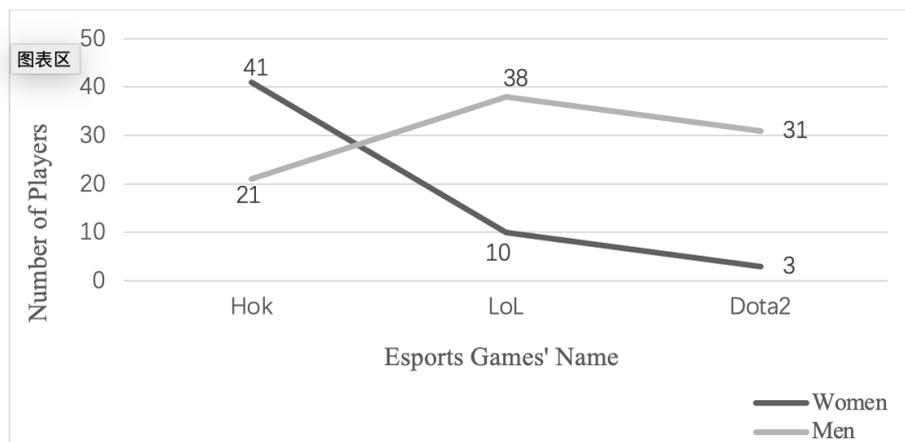
In Figure 3, there is a clear decrease in women esports player from mobile esports to PC. This data is not surprising since it matches the result showing that the majority of women esports player concentrate on smartphones or tablets. What is worth noting is the 13 players of *LoL* and *Dota 2*. Both of those two games are PC esports games, and *Dota 2* was widely cited by focus group interviewees asked to name a game requiring a higher level of in-game mastery than *LoL*. While more women choose to play *LoL* than *Dota 2*, it is reasonable to assume that the high level of in-game skill mastery required by *Dota 2* contributes to the limited number of women playing it. Meanwhile, men show a moderate change in relation to the difficulty levels of the games. Clearly, in-game skill mastery is particularly associated with women's participation in esports.

Furthermore, the responses to the questionnaire implied that women in this research found it more difficult to obtain a high level of in-game skill mastery than men. A Likert scale was adopted in Question 15 for the participants to choose the extent to which they agree that esports skill mastery is hard for them, from 1 (strongly agree) to 5 (strongly disagree). 70% of the men participants responded they do not agree that it is difficult for them to master skills in esports, with 23.8% strongly disagreeing. Meanwhile, 37% of women chose 'disagree' and only 6.5% responded that they strongly disagree. This is to say the majority of men esports players do not feel that a certain degree of in-game skill mastery is hard for them. On the contrary, more than half of the women respondents agree with the idea that in-game skill mastery is not easy for them. This evidence shows that more than half of the women respondents in this research reported

skills of playing esports is not easy for them to learn and control. This finding is in line with previous research indicating that men are averagely overperforming women in in-game skill mastery (Lucas & Sherry, 2004; Quaiser-Pohl et al., 2006).

Moreover, as shown in Figure 3, women prefer to concentrate on esports games which require a comparatively low level of skill mastery. This phenomenon calls to mind Lucas and Sherry's (2004) finding that when women have a low level of in-game skill mastery, their control needs[2] are unsatisfied, and they are likely to quit playing. Based on Lucas and Sherry's finding, women esports player may have the feeling of loss of control if they do not have qualified in-game skill mastery. Furthermore, this feeling can influence their further participation in esports negatively. This idea partly explained the gender gap in esports participation, especially the gender gap in PC esports participation.

However, the discussion presented above does not aim to argue that the gendered difference in in-game skill mastery is due to biological sexual differences. To understand the gender gap in in-game skill mastery, it is inevitable to mention its relationship with players' confidence level of playing games. A common idea suggested by previous game studies is that players' confidence level is highly intertwined with players' in-game skill mastery (Hall, 1990; Brown et al., 1997; Hamlen, 2010). This intertwined relationship can be described as 'with time spent playing leading to greater skill and confidence, and greater confidence providing motivation to play more' (Hamlen, 2010, p.294). In another words, players' greater confidence can encourage their further participation in esports play and can further improve their in-game skill mastery. With this consideration, this research further evaluated the relationship among players' confidence level, in-game skill mastery and their participation in esports.

What is highlighted by the quantitative data collected from the questionnaire is that the self-confidence level is highly associated with women's in-game skill mastery. In other words, women's attitudes to esports and their participation are influenced by their confidence level in their in-game skill rather than by sex differences. In the

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[2] The idea of 'control' refers to Schutz's (1958) argument that all people are oriented by three interpersonal needs, including the need for control. The need for control refers to 'the level at which an individual wants to have power over the actions of others' (Lucas & Sherry, 2004, p.504)

questionnaire, the 5 score Likert scale was adopted in Questions 11, 15 and 16 to evaluate esports players' participation frequency, their confidence level in their skill mastery and their attitudes toward the suitability of esports to women. In the analysis process, correlational analysis was applied to evaluate the relationship among women's confidence level in their skill mastery, their participation and their attitudes to esports. Table 5 presents the analysis of 92 women's responses.

Table 5. Pearson Correlations Among Suitability of esports for women, players' confidence level and level of play frequency.

	1	2	3
1.Q16: Suitability of esports for women	-		
2. Q15: Confidence level of in-game skill mastery	.446**	-	
3. Q12: Level of play frequency	.318**	.404**	-

**. Correlation is significant at the 0.01 level (2-tailed)

According to Table 5, the results suggest that the correlation between confidence level and players' attitudes toward the suitability of esports for women are statistically significant, r =0.446, p<0.01. Moreover, as mentioned in the early part of this section, data collected from Question 15 shows that among those 92 responses from women, only 36.9% do not agree that in-game skill mastery is hard for them. These data indicate that women respondents in this research have a lower level of confidence in their in-game skill mastery. When women participants hold a lower level of confidence relating to their in-game skill mastery, they are more likely to believe that esports are not suitable for women (r=0.446, p<0.01). At the same time, Table 5 shows a positive correlation between the women's confidence level and their participation frequency: r =0.404, p<0.01. This means when women in this research have a lower level of confidence in their skill mastery, they less frequently play esports games. In general, the correlation analysis indicates that their confidence level in their in-game skill mastery has considerable negative correlation with women esports player's attitudes towards esports and their participation frequency. The more difficult they think esports are, the less frequently they play and the more they believe that esports are not suitable for them.

This research further carried out analysis of correlations among those three questions within men responses (n=160). Comparing the results with the women's responses presented above, the correlations presented in Table 5 became more considerable. Specifically, no significant correlation was detected between men's confidence level and participation frequency ($r = 0.202$, n=160, $p < 0.01$). In summary, women's in-game skill mastery is an obvious obstacle to women taking part in esports. Meanwhile, women present a lower in-game skill mastery and a lower confidence level in their skill mastery than men. However, it is necessary to mention that the evidence detected in this study is far from sufficient to state that women are naturally lacking in in-games skill mastery compared to men. As discussed above, self-confidence is one of core elements influencing women's in-game skill mastery. Meanwhile, this research detected any evidence to support the idea of women's confidence in playing esports is naturally weak than men's. Instead, what worthy to be noted is the possibility that more women might be attracted to esports once their confidence level is increased.

Apart from gender differences in in-game skill mastery and players' confidence in their capability at playing esports, this research detected two possible reasons to explain women participants' comparative weak in-game skill mastery performance. The first reason is that a high level of in-game skill mastery largely results from repetitive training, but such training does not match the majority of women esports player' preferences. Repetitive training is a key process for improving players' motor memory, which is generally known as muscle memory. The motor memory has been argued to be a key factor influencing 'an enormous range of human activities, including industrial tasks, sport skills, recreational opportunities… …' (Allard & Starkes, 1991, p.126). Likewise, it influences esports players' in-game skill mastery. As Li, a former professional esports player, stated, 'the muscle memory is very important for esports players, especially for professional players. Elements such as the APM[3] are important indicators to evaluate players' skill mastery' (in-depth interview, 28th December 2017). Increasing APM requires repetitive training to improve players' motor memory. As the current research states, the length of time and the degree of repetition are highlighted

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[3] Actions Per Minute (APM) refers to the total number of actions a player can control in one minute. It is a professional term adopted by the esports field to evaluate players' ability levels.

as key issues in improving an individual's motor memory (Shadmehr & Brashers-Krug, 1997; Walker et al., 2003; Roig et al., 2012).

When analysing the option of 'preferences & motivation', which is one of the options of question 9 of the questionnaire, improving in-game skill mastery as a motivation was only reported by 26.1% (n=24) of the women respondents in the questionnaire. This is to say that improving in-game skill mastery is not the primary motivation for women to play esports games. More detailed evidence emerged from the focus group interviews. When answering the question, 'What challenges do you meet in playing esports?', the subtheme of 'improving skill mastery' appeared six times. That is to say six of all 18 women in focus group interviews mentioned improving skill mastery is a challenge for them. Quotes associated with this subtheme described why improving skill mastery is difficult for women. As one of interviewees said,

> *'I know how to improve my skill mastery, but the problem is it took a long time for me to control a character well. Too many experiences of failure before controlling a character well are frustrating'* (Women interviewee in Focus Group 1, student, 2018).

This reflection indicates there is a trend of women may view the long process of improving in-game skill mastery as an obstacle to participate in esports. In fact, women interviewees' rejection of repetitive training and their limited skill of playing esports are a case of reciprocal causation; in other words, women may reject repetitive training, which leads to their comparatively weak performance in in-game skill mastery. This circular relationship between women's low in-game skill mastery and their minimal interest in improving skill mastery calls for further discussion. In fact, this study detected that improving in-game skill mastery can be recognised by women as an interesting element of playing esports. Women participated in the focus groups reported that their motivating desire for achievement was satisfied by building up skills. A discussion of this motivation is presented in Chapter 5.

Therefore, the possible explanation for women appearing to have little interest in training and developing their in-game skills is that achievement is not their primary

motivation for playing esports. This is to say, improving skills of playing can stimulate women's further participation in esports. However, it is notable that women report the training is a challenge for them. This phenomenon calls Hamlen's (2010) argument in mind. Hamlen points out spending time to build up skills is influential to players' confidence level of playing video games. However, improving skill is not enough for women to choose to spend more time on playing. In other words, in playing video games, women 'need something more to motivate them to spend time doing the activity so they can continue to develop the confidence and knowledge' (2010, p.304).

Thus, improving in-game skill mastery itself can stimulate women interviewees' participation in esports to a limited degree. It is necessary to mention that while building up skills has been associated with other elements, such as players' social intercourse, women appear to show different attitudes towards training. The detailed discussion of this part is presented in Chapter 5. Discussions presented above show the diverse responses regarding women's participation obtained for this research indicate that women have multiple motivations for playing esports games. What is highlighted in this section is that in-game skill mastery appears to be a negative influential element for the majority of – but not all –women who play esports.

The second reason detected in this research is that women's average degree of engagement with esports is lower than men's. Engagement with esports not only refers to direct participation in esports games but also includes a wide range of pathways adopted by players to enjoy esports. In the focus group interviews, three pathways were detected for improving individuals' in-game skill mastery: learning from online streaming, learning from offline leagues and discussing tactics with other esports players both online and offline. However, the data shows that women have a comparatively low level of engagement in all three of the pathways mentioned above. In the questionnaire, 66.3% of men respondents reported watching esports online streaming, while only 40.2% of the women respondents reported doing so. Moreover, further discussions in the focus groups illustrated that one of women's major motivations for watching esports online streaming is that they find the content fun. Among all the reasons the women respondents mentioned for watching online streaming, learning necessary in-game skills only appeared once. Considering that activities like watching online streaming can help people improve their in-game skills,

it is reasonable to argue that women's comparative lack of these skills is partly due to their lack of engagement in esports-related activities.

While this section has been devoted to looking at how in-game skill mastery influences women respondents' confidence in playing esports and their participation in esports, it is necessary to point out that no evidence was detected to support the idea that gender differences in in-game skill mastery is associated with biological sex differences. Of course, it is inevitable to ask why there are gender differences in the skills displayed by players. If in-game skill mastery plays a dominant role in influencing women's participation in esports, why is there an increasing number of women playing mobile esports? Even though playing mobile esports appears to be easier than playing PC esports, it is worth mentioning that playing mobile esports games still requires a significant degree of skill beyond that usually associated with playing casual games. One of the possible explanations is that women have the capability to obtain the necessary in-game skill mastery to enable their participations in esports. What is important is that this question reveals the complicated nature of women' participation in esports, and in-game skill mastery can only partly explain the gender gap in esports.

Gender discrimination and stereotypes in esports

In considerations of women's participation in esports from a cultural perspective, one of the areas that has received the most attention is gender stereotyping and its influences on women. As the literature review showed, gender stereotyping has been explored by previous studies, which have addressed such topics as the game design presenting gender discrimination against women (Gailey, 1993; Miller & Summers, 2007; Kirkland, 2009), masculinity in computer games (Kafai et al., 2008; Vanderhoef, 2013), women being marginalised from the hardcore players (Hartmann & Klimmt, 2006; Hayes, 2005) and the development of female-oriented games (Taylor, 2003; Nakamura & Wirman 2005; Dickey, 2006). This section concentrates on gender stereotypes in esports and how they affect women's participation. The esports-related gender stereotypes revealed in this study deal with the marginalisation of women from the hardcore esports players and negative impressions of women's in-game skill mastery. Moreover, what is surprising is that gender discrimination regarding in-game skill

mastery has actually occurred mutually between men and women. In addition, this section highlights that women's participation in esports is influenced by gender stereotypes, but its influence is limited.

Gender stereotypes limiting women' performances exist in a multitude of activities associated with competitiveness, such as sports (Lenskyj, 1990), entrepreneurship (Gupta et al., 2008) and negotiations (Kray et al., 2001). Consistent with this, the present research detected that gender stereotypes exist in the realm of esports and are influencing women' participation. When players were asked whether they had experienced sexual discrimination (Question 14), there is clear data indicating the existence of gendered prejudices in esports play. On the questionnaire, 35.87% of the women reported that they had experienced sexual discrimination including via texts, voice messages and other behaviour in games, while only 19.38% of the men reported that they had the same experiences. Obviously, women reported experiencing more sexual discrimination than men. This result echoes the gender discrimination detected in video games (Schott & Horrell, 2000; Carr 2005). However, no conspicuous evidence was detected to prove a correlation between the women's participation frequency and their experiences of sexual discrimination. Among those respondents who said they participate in esports with moderate to high frequencies, 57.5% reported experiences of sexual discrimination. On the contrary, 68.4% of women respondents with low frequency of playing esports reported they have never experienced gender discrimination in esports. On a superficial level, this data shows that players who have experiences of gender discrimination may report a high participation frequency. Such a result seemly indicates that experiences of sexual discrimination are positively associated with women's participation in esports. However, this apparent positive relationship is not evidence to argue that gender discrimination has little influence on players' participation frequency. In fact, it proves the existence of gender discrimination targeted at women and can be explained very simply: when women participate in esports more, they are more likely to experience gender discrimination.

What needs to be mentioned here is that the data from the questionnaire did not provide further evidence on how gender discrimination deters women from playing esports. This might be because, on one hand, the nature of discrimination in esports remains unclear and the term 'sexual discrimination' adopted in the questionnaire may be

ambiguous for the participants. On the other hand, playing esports could be understood not as a means of entertainment, but as something that is deeply intertwined with players' social needs. A discussion about this argument will be presented in Chapter 5. Even though the research outcome did not present a strong correlation between experiences of sexual discrimination and players' participation frequency through the statistical data, the considerable gender gap in esports still calls that issue into question. Since women respondents reported having more experiences of sexual discrimination than men, it remains necessary to explore what kinds of gender-related discrimination exist in esports. According to Riach and Rich (1987), one of the sources of sexual discrimination is prejudice. This thesis further explores gender stereotypes in esports through the in-depth interviews and focus groups.

The first stereotype detected is the impression of women as less skilled esports players. Question 19 explored the respondents' impressions of whether they feel it is harder to win a game with women teammates. The result shows that 33.1% (n = 53) of the men responses feel it is harder to win a game if they have women team members while 15.22% (n = 14) of the women responses feel the same. This data shows that one third of the men who responded to the questionnaire believe that women's in-game skill mastery is not sufficient to win games. This result is in line with the discussion of in-game skill mastery as a difficulty for women taking part in esports.

Further discussion in the focus groups revealed more about gender stereotypes in esports. Four terms came up repeatedly when the participants were asked, 'What word comes to mind when you hear "women esports player"?', including 'fewer players' (12 times), 'poor skill mastery' (9 times), 'beautiful' (5 times) and 'online streaming' (4 times). Notably, seven of the nine occurrences of 'poor skill mastery' were reported in all-male groups and none of them appeared in mixed-gender groups. This data illustrates that discriminatory opinions are more likely to appear when women are absent. When women are present in focus group interviews, men are less likely to express discriminatory ideas regarding women's in-game skill mastery. At the same time, discussions of in-game skill mastery are avoided by women interviewees when men interviewees are not present. Obviously, discrimination regarding in-game skill mastery appears to be targeted at women.

As was discussed in the last section, building up skills in playing esports has been reported to be a challenge for women. Meanwhile, the majority of women responses of the questionnaire choose to play mobile esports, which require a lower level of in-game skill mastery than PC esports. The evidence indicates that women participants of this research show the trend that they averagely having a weaker playing skill. Of course, reasons drive to the gender gap in in-game skill mastery is complicate. However, while women's in-game skill mastery has been identified to be one important element that generating gender discriminations in esports, the influence exerted by this stereotype upon women's participation in esports needs further discussion.

By adopting the theory of Stereotype Threat (Steele & Aronson, 1995), Vermeulen et al. (2017) point out that one of the core threats influencing women's participation in digital games is the stereotype regarding women's poor skill mastery. Clear evidence is provided in Eklund's (2011) study on women's participation in *World of Warcraft* (Blizzard Entertainment, 2004). The women participants in the study downplay their 'own importance and the skill necessary to play' under the influence of their male partners (p.337). What highlighted by their study is that women may perform as less skilled players because the stereotype is affecting them to do this. Comparing with biological gender differences, the gaming culture that remains patriarchal is one of the important reasons leads to women's limited skill mastery in playing video games. A later study carried out by Ratan et al. (2015) evaluates the skill level of 16,821 players of the *LoL,* which is one of the most popular MOBA games, revealing that even though women have the same ability to improve their skill mastery as men, women still lack confidence in their skill mastery. Ratan et al. further point out that this phenomenon is due to the stereotype that women are less skilled players. Unfortunately, they fail to identify the gender stereotypes that exist in the context of *LoL.* Thus, since the gender stereotype that women are less skilful at esports has been identified in this study, it can be confidently concluded that this stereotype has negative influences on women's participation in esports from a cultural perspective.

The second gender stereotype in esports detected by this research is the stereotype that women are casual players who occupy a marginalised position in esports play. It is not a new idea that women have been understood as casual gamers within the game studies. In Bouca's (2012) article on the gender gap in mobile games, a detailed review

demonstrates that both the video game industry and academic studies define women as casual players, and that men have the same idea of women as casual gamers who play casual games. Direct evidence of this is presented in De Schutter's (2011) work on casual gaming, where 91.4% of women participants are defined as casual players.

This thesis likewise detected the trend that men regard women in esports as casual players. An excerpt of the transcript from an all-male focus group interview provides a vivid image of how women in esports are identified as casual players:

> '*I played* PlayerUnknown's Battlegrounds Mobile (PUBG Mobile) *(Tencent Games, 2018) with a girl. We needed to find the equipment everywhere and shoot all the enemies. She didn't know how to shoot and the only thing she did was follow me and give me bullets when I was out of bullets. When the game finished, she said to me that she felt that the game is so exciting*' (Men interviewee in Focus Group 3, teacher, 2018).

This excerpt illustrates some men players' belief that women play esports in a casual way, as differentiated to their more active, engaged play. Moreover, through analysing the participation frequency of women, the idea that women are likely to be casual players was further supported. On the questionnaire, 41.3% (n=38) of the women reported they had played esports from sometimes to always during the past three months, while 69.4% (n= 111) of the men reported the same frequency. Even though the yardstick for evaluating a gamer as casual is contentious, 'play games casually' is generally accepted by scholars to be a core feature of casual players (Bosser et al., 2006; Kuittinen et al., 2007). The emergence of this gender stereotype is not surprising, and Jiang, the founder and CEO of Luyang Technology (in-depth interview, 22nd December 2017), presented a comprehensive statement on it in in-depth interview:

> '*The perception that women are casual gamers is influenced by the fact that women prefer to play casual games for a long time. Players do not need to spend too much time to improve their skill and explore the tactics. Further, most of the women are indeed playing esports casually. Even though players playing a casual game are not equal to casual gamers, it is*

> *inevitable to regard women as casual gamers'* (in-depth interview, 22nd
> December 2017)

According to this quote, Jiang argues that women prefer to play casual games. What need to be emphasised is that Jiang does not provide further evidence to prove this idea. Interestingly, he rehearses the conception of women do not have qualified skills to play PC esports games. In other words, Jiang presents his belief as a fact. His argument indicates there is a type of belief in natural tendencies that are linked to players' gender. This kind of belief has been accepted even by an industrial professional. However, even though Jiang's argument appears to be a kind of belief rather than a fact, it is not conflicting with the situation of women's participation in esports that detected in this research. While men outnumbered women in playing esports with high frequency (men 69.4% and women 41.3%), Jiang's belief somehow reflects women are playing esports in a comparatively casual way.

However, further analysis indicated inconstancy between the play frequencies reported by women on the questionnaire and in the focus groups. When talking about the frequency with which they play esports games in the focus groups, women in the all-women group reported they participate in esports almost every day and that it is an important way for them to interact with their friends. Frequency was reported to be slightly decreased by the women in the mix-gender groups: *'I play esports very often, but not every day. I play it when I've got time'* (women interviewee in Focus Group 1, teacher, 2018). Even though participation frequency is not the only measurement to evaluate an individual as a casual gamer, it is still worth noting that women's actual participation frequency may be higher than the questionnaire results and the gender stereotypes suggest. A possible explanation for the discrepancy can be found in Williams et al.'s (2009) study. They suggest that women may underreport the actual amount of time they spend on games, even in an anonymous survey, because they desire to 'remain cognitively consistent about being a woman who is not too into games and perceived male orientation' (2009, p.717).

Therefore, the women in this research may have a higher participation frequency than they reported on the questionnaire. This research detected evidence about women's engagement with esports at a high level. On one hand, as presented in Table 4, even

though the majority of women responses concentrates on mobile esports, 33.9% of them reported had experiences of playing esports on the PC. On the other hand, even though professional esports play is currently dominated by men. It is undeniable women professional players and women's offline esports leagues are emerging. For instance, Zhu, one of the in-depth interviewees of this research, is the leader of professional women's esports team Team Shinning Love founded in 2002. It is one of the earliest women professional esports teams in China and its main project is the game of *Counter-Strike* (*CS*) (Valve Corporation, 2000). Moreover, as presented in Chapter 7, professional women's esports championships have been established, such as the International Electronic Competitive Women's Club Grand Prix (EWG). The evidence is showing women's involvement in esports is not in line with the idea of they only playing casually. Even in this research, there are women reports a high level of engagement with esports, such as:

> *'At the peak period, I used to play it (*LoL*) every night… for about half a year'* (women interviewee in Focus Group 2, student, 2018)
> *'I play* HoK *every day now, it is like a daily routine of my life'* (women interviewee in Focus Group 2, researcher, 2018)

Clearly, the idea of women are casual players and they play esports casually may be a gender stereotype rather than an authentical description of women esports player. The evidence presented above illustrates that women do play esports at a high level. The inconsistency between women's actual participation frequencies and their reported frequencies has been suggested to associate with cultural influences. As Williams et al. (2009) mention, playing esports is perceived as being incompatible with being a woman. While women are less encouraged to play 'cross-sex stereotyped video games' (Lucas & Sherry, 2004, p.507), it is reasonable for women in this research to underreport their participation frequencies of playing esports to keep themselves in line with the image drawn by the culture. In fact, this phenomenon is particularly obvious in this research when participants are under influences of the Chinese game culture, which is gendered to a certain extent. The last section of this chapter presents a detailed discussion of this problem. What highlighted here is that the picture of women are casual gamers who just casually play esports through smartphones or tablets may be inauthentic.

Overall, the evidence discussed above has indicated there are gender stereotypes that present women as less skilled and as casual esports players. The results have revealed that the gender stereotype is, on one hand, an influencing factor women's participation in esports from a cultural perspective. There are women who engage with esports at a high level. However, the pre-existed masculinity in video game culture has influenced the perception of gender in esports. In detail, stereotypes such as women are casual player was detected in esports play. What need to be pointed out is that this research pays particular attention on women play in esports in China. Thus, it is necessary to take Chinese game culture and its influences into account. The last section of this chapter presents detailed discussion of how Chinese game culture contributes to the masculine identity of Chinese esports. Moreover, the last section of this chapter discussed how Chinese game culture influenced women participants of this research to participate in esports.

On the other hand, stereotypes are influencing their behaviour and compelling them to model themselves as 'appropriate' women esports player who match stereotypes and the identity of being a woman. As Vermeulen and Van Looy suggest in their study, women who participate in games less frequently and less skilfully are more likely to 'hold the most stereotypical beliefs' (2016, p. 299). Moreover, two aspects should be noticed by further esports research. First, gender stereotypes may reinforce the masculinity of the esports culture. As Richard concludes (2015), the long-term effect of gender stereotypes distances disadvantaged groups from engaging with the activity, such as sports and computer games. Thus, gender stereotypes identified in the field of esports may enhance the perception that esports is a male-dominated field and women may be a marginalised group within it. Second, it is worth noting that the gender stereotype itself actually makes it difficult to determine and evaluate the true relationship between gender stereotypes and women's participation in esports, as the cognition of being an appropriate player and being an appropriate woman is possibly constraining women from reporting authentic information.

Limited previous experience of digital games

The other result revealed in this research is that women esports player have limited previous experience of digital games and maintain a lower level of loyalty towards the game they play currently. Referring to their actual participation process, women that were involved in this study participate in esports discontinuously. As a result, women esports player appear to be an unstable player group and the number of hardcore women players is limited.

One of the core features of the women participated in this research is that they lacked experience playing digital games before they became familiar with esports. More than half of the women participants in the focus groups reported that they had never played online digital games before while the majority of the men participants reported having a good deal of experience playing online digital games. This is not surprising since both gender stereotypes and the market reports indicate women are marginalised from digital games (NewZoo, 2016). The literature review has already illustrated how women are absent from the area of video games. The most obvious consequence is that women appear to have limited experiences of playing video games. In addition, the other consequence is that their absence nourishes gender stereotypes and negatively influences women' participation in esports. As Fox and Tang (2014) suggest, the gender stereotypes, presented as sexism in their study, may 'be driving women away from many networked games or forcing them into silent participation rather than active engagement' (p. 318). This finding is not novel since the abundant research outcomes of previous game studies are more than sufficient to indicate that women have limited experience of video games. What emerged in this research is that women's limited experience of digital games has notable influences on both of the pathways by which they come to esports and their long-term loyalty to playing esports.

First, this research detected that women's lack of previous experience playing video games influences the way they come to esports. When answering the question, 'How did you come to the field of esports?' in the focus group interviews, information from friends and advertisements in public places were reported to be the main catalysts for women to establish relationships with esports. On the other hand, the sources reported by the men interviewees were diverse, including game forums, game news and offline communication with both friends and previous game mates. Clearly, in terms of establishing relationships with esports, men present diverse ways, which illustrates the

gender gap in the ways people come to esports. This result echoes Terlecki et al.'s (2011) conclusion that men are more likely to share their experiences of video games and talk about the games while women are less likely to do so. Thus, it is rational that the women participants would come to know esports games through friends and advertisements in public places. However, the finding that is revealed by the ways the participants came to esports is remarkable. Since the women lack previous experience of digital games, it is highly possible for them to establish their relationships with esports with the most popular game. In other words, those popular games with considerable number of players may be more likely to be noticed by women. Meanwhile, women are more likely to start playing esports games from those popular games. As one of the women in the focus group interviews mentioned,

> 'Honor of Kings[4] *is the only esports game I've play so far. My friends are always talking about it and a lot of advertisements appear at the bus stop, shopping malls and even the universities. Then I started to play it with my friends. Everyone is playing it, so I joined in*' (women interviewee in Focus Group2, student, 2018).

This statement indicates that the women participant come to play esports games through both social influences and the popularity of the game itself. In this process, the influence of personal taste regarding esports games was not detected among the women's responses in the focus group interviews. A possible explanation is that, as discussed in Chapter 4, women participated in this research have limited previous experience of playing video games because Chinese game culture and related policies. Consequently, they prefer to play game with good reputations since they do not come to esports equipped with specific tastes regarding game genre.

Second, the data from the focus group interviews illustrate that women participants are influenced by the popularity of games in their long-term participation in esports. At the stage of evaluating whether to keep playing an esports game in the long term, the majority of the women interviewees mentioned that they kept playing popular esports

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[4] *Honer of Kings* is a mobile esports game developed by the Timi Group Studio and published by Tencent Holding Ltd. on 26th November 2015.

games even though they did not feel the game was especially appealing. Meanwhile, the men interviewees reported a similar phenomenon related to game popularity. For instance, playing *HoK* was reported by both men and women in the focus group interviews. However, what appeared to be different was that when women feel dissatisfied by playing an esports game, they tended to quit esports entirely. On the contrary, once a popular esports game failed to satisfy the men esports players, they were likely to go back to playing a game they used to play rather than abandon esports games entirely. A vivid example is provided in the following statements:

> *'I played HoK when it was just published, but I play Dota 2 much more often now because it is more fun for me. I didn't delete HoK. I feel it is better to keep both of them since I play HoK sometimes'* (Men interviewee in Focus Group 5, student, 2018).
>
> *'I stopped playing HoK for a long time since the PUBG Mobile was becoming popular and all my friends started to play it. I am planning to learn it… but I feel fine without playing any games'* (Women interviewee in Focus Group 3, student, 2018).

Comparing those two statements, it is clear that playing esports appears to be a necessary activity for the men player while it appears to be less necessary for the women interviewee. The women interviewee's response may be attributed to her limited previous experience, since video games are not an indispensable element of the women's daily life. As Terlecki et al. (2011) suggests, women are more likely to play video games 'when there was nothing to do …males reported that video gaming was more of a priority' (p. 24). Thus, at the stage of long-term participation, the popularity of esports game becomes a more influential element than personal preferences for women. What is highlighted by these two outcomes is that the women interviewee's previous experience of video games is limited, consequently leading to a weak relationship with esports. This is significant for understanding women's loyalty to esports, which is connected to possibilities for their long-term participation.

When looking at esports players' loyalty in terms of long-term participation, the evidence indicates that the majority of women maintain a lower level of loyalty towards esports. In the focus groups, men interviewees reported playing two to three esports

games in the same period and said they were highly likely to play esports games which are less popular but match their taste. In fact, men reported experiences of replaying games, include webpage games, console games and variety of online games. On the contrary, women reported less experiences of replaying games. An important reason leading to this gender difference is that the women in focus groups reported having limited knowledge about video games and esports games. As one interviewee mentioned,

> *'I played console games on the computer like* Plants vs. Zombies*. I played online games also such as* Fantasy Westward Journey *(NetEase Inc., 2001). But few people play them now and I don't feel it is interesting to play them again'* (Women interviewee in Focus Group2, saleswomen, 2018).

This shows that once women have stopped playing a popular esports game, they may stop playing all games because they have no idea of which game to play. Even though the women participants did not directly state that they would not replay games, they are less likely to repeat their participation once the esports game is no longer popular. In short, their repeat participation in esports play appears to be largely influenced by the popularity of the game. Meanwhile, they are more likely to quit playing esports entirely when the game loses its attractive pull. This indicates that women's participation in esports is associating with the popularity of the esports game to a certain extent. At the same time, their participation in esports is less stable comparing with men.

These characteristics of women esports player is worth noting by both scholars and the industry. On one hand, the update frequency of the game industry is fast. Thus, how to improve women's further engagement with esports games is worth to be explored. For instance, as the JiGuang Data (2018) reported, the period of popularity for *Anipop* (Happy Elements Technology, 2013) and *Gardenscapes* (Playrix, 2016) two of the games with the largest number of users in February 2018 in the category of casual games in China, was around 50 days. This is to say the popular period of digital games are comparatively shorter than traditional sports activities. While women show the trend of specifically interested in popular digital games, how to attract women in long period need further exploration. Even though the popularity period for esports games is longer than it is for casual games, competition within the esports industry is fierce.

When the esports game women playing is no longer popular, women may not only quit the game but also may quit playing esports.

On the other hand, while women's interests in esports is likely to be influenced by the popularity of esports games, it might be harder for them to improve their in-game skill mastery since the total amount of time they spend on one esports game is limited; as was mentioned above, improving in-game skill mastery in esports involves a considerable time investment. This problem may reinforce the stereotype of women are less skilled players in esports. Moreover, it further deters women from participation in professional esports play, which is an area requires players to engage with esports games at a considerable level. This is to say to become a professional player asks players to concentrate on one esports game in a comparatively long period, which is inconsistent with the trend of women prefer to play popular esports games only.

Low exposure and the fault line in Chinese game culture

Since women have been described by stereotypes as casual players (Vanderhoef, 2013) and are marginalised from the core area of the video game culture (Hartmann & Klimmt, 2006; Hayes, 2005), it is not hard to understand their weak relationship with video games when they come to esports. Aside from those explanations, it is necessary for this chapter to address the history of video games in China. As the majority of the research participants were Chinese, China's unique video game history has been found to be influential on players' participation in esports, particular women. Moreover, the ways that China's gaming history and game culture create barriers for women playing esports is making it challenging for the esports industry not only to attract more women, but also to attain a high level of social acceptance. This section will first discuss how the characteristics of women esports player discussed in the previous section have been affected by the development and culture of gaming in China. Moreover, this section will illustrate how the current perception of women esports player has become embedded in Chinese game culture and become a challenge to both women esports player' participation and the industry itself.

In previous fieldwork looking at esports and video games, one limitation has been that little attention has been paid to the unique game history experienced by the study sites' participants. Considering that the research outcomes of those studies are frequently generalised, this limitation is clearly vital. In the history of video games in China, one of the most influential issues is the gap in the development of console games, which resulted both from Chinese history and game policies. Even though the rapid development of online games and mobile games has greatly impacted the console game market, the absence of the console game era in China has had a considerable effect on preventing women from entering esports. China's unique present conditions for women in esports is due to both Chinese history and the policies of the game industry.

When China's economic reform and opening-up started at the end of 1978, Chinese players began playing console games from overseas and the Chinese game industry began to develop. However, only five years later, the famous Atari Shock[5] occurred, 'an event so traumatic that it appeared to destroy the entire industry' (Williams, 2005, p.3). Against such a background, the Chinese video game industry developed within a limited scale. In addition, Chinese policies focusing on video games further prevented the development of the industry and affected China's game culture (Kim et al., 2015). In 2000, The State Council of The People's Republic of China (State Council of PRC) issued its "Opinions concerning Launching a Special Campaign to Bring Electronic Gaming Business Venues under Control" and began to work on the governance of the domestic game console market (2000). This ban forbade enterprises and individuals from engaging in the production and sale of domestic electronic game devices. This ban lasted 14 years (State Council of PRC, 2014) and had considerable influences on Chinese game culture and players. As Niu, the co-founder of *Luyang Technology*, described in the in-depth interview,

> '*This injunction mainly concentrated on console games and arcade games. However, as the term used in this injunction was 'electric games' and the public at that time had little knowledge and experience of games, this*

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[5] Atari Shock is a term to describe the collapse and bankruptcy of the Atari Corporation in the 1980s, which used to be one of the most influential game companies in North America. The Atari Shock led to the bankruptcies of 90% of software companies and influenced the entire gaming industry in North America (Takakuwa, 2013, p. 76).

injunction has affected the entire gaming industry in China negatively,
including online games and even Chinese game culture up to now.' (in-
depth interview, 2nd January 2018)

Based on the interviews with Chinese video game industry professionals, the influences
mentioned by Niu reveal two aspects that require examination. First, China's unique
game history contributed to the stereotype that electronic games are detrimental for
children and teenagers, which further reduced the visibility of electronic games among
the public. Consequently, the fieldwork for this study revealed that stereotypes about
video games and the low level of visibility of video games in Chinese history has
influenced women's participation in esports considerably.

As discussed in the previous section, the women participants in this research reported
very limited experience of playing video games. This could be largely explained by the
fact that video games and video game devices have been culturally restricted, and
players had few opportunities to play video games before 2000. As one of the focus
group interviewees mentioned, 'I think the *HoK* was the first multiplayer game I played.
Before that, I remember playing FC games, but not that much' (Women interviewee in
Focus Group 4, researcher, 2018). FC refers to a device produced by Subor (1987), a
Chinese electric devices producer. It was published as a learning tool, but it could also
support console games; it was similar to the Nintendo Entertainment System (1983).
However, even though the injunction against digital games had not been published at
that time, devices that supported game play were marketed as learning tools instead of
game devices. This reflects the video games and console devices were marginalised
from mainstream culture in China even before the injunction against digital games was
published in 2000. These influences are visibly presented by Fang, who is working on
analysing players in NetEase Games:

> '*playing video games has been regarded as a dreadful activity. Meanwhile,*
> *the mass media rarely reported on news associated with video games. Even*
> *if news associated with videos games was reported, most of the news was*
> *on very negative aspects. Video games actually have very low acceptance*
> *in China*' (in-depth interview, 17th March 2018).

One consequence of the marginalisation of video games in Chinese daily life has been that potential players have few opportunities to establish relationships with video games. Of course, the above discussion of video games in the Chinese context does not suggest gender differences in the historical experiences of players. The very limited development of the Chinese video game industry and game culture has influenced both men and women's engagement with video games.

The second aspect requiring examination is that if they were paying attention during the early stages of online games, Chinese men generally started to establish their relationships with video games, while women generally failed to do so. With the arrival of the era of online games, as Guttenbrunner et al. suggests, 'the way games look and are played changes constantly' due to developments in computer technology and the Internet (2010, p.64). What need to be noted is that before the popularity of personal computers, the most common way for men to play online games is in public spaces, such as Internet cafés. However, women were less encouraged to do the same. This is mainly because playing computer games in Internet cafés was understood as a masculine activity (Wakeford, 1999) and the Internet café was argued to be a 'stigmatized dangerous space …not suitable for women's (Lin, 2005, p. 6). This illustrates that stereotypes around men and women playing online games in public spaces created the gender gap at the early stage esports development.

Moreover, this situation is more serious in China. Existing studies indicate playing games in Internet cafés is not an encouraged behaviour around early 2000. For example, Liu (2009) points out Internet cafés have 'attracted governmental problematisation, interference and restriction' and publics accepted Internet cafés as places that have negative influences on the young generation. More specifically, through reviewing previous studies, Jiang (2014) mentions that 'Internet cafés have become masculine gaming spaces full of men playing various online games' in China (p.5). Such unique Chinese cultural background has further deterred women from establish their relationship with online games and online game culture at an early stage. In accordance with the arguments, the majority of women reported that they had little experience of playing computer games in public spaces and had no experiences of playing esports in Internet cafés until recently. As one of the typical responses mentioned,

'*I got my PC when I went to the university. The first game I played on it was* Plants vs. Zombies *(PopCap Games, 2009)*' (Women interviewee in Focus Group 2, student, 2018).

Even though Internet cafés are now less popular for playing games due to popularity of mobile devices and PCs, this research still detected women participants generally started to play online games when they got their PCs. Moreover, while men participants in mixed-gender groups mentioned their experiences of playing esports at Internet cafés, women kept quiet. The limited testimony collected from women interviewees about their experiences of going to Internet cafés is associated with online chatting, watching films and so forth. Until the popularity of PC, women's engagement with online games has been improved. As Huhh (2008) points out that the popularity of online games in Korea was forged from the 'unique and localized characteristics of the evolution of the PC bangs' (p.27) (PC bangs are Korean gaming centres). This is a reflection of how PC and PC game changed the way players play online games. Relating to women's participation in online games, one of the most notable influences is that women are able to play online games through PC at private spaces.

Consequently, women's participation in esports at the early stage of the online game era was negatively affected by both China's digital game history and the game culture. Chinese women players had limited opportunity to establish engagement with video games and, therefore, have limited experience playing video games. Thus, the fact that a large proportion of the women esports player interviewed in this study reported playing only mobile esports (53%, n = 77) is not only due to mobile esports' lower requirements of technology engagement and in-game skill mastery, but also because mobile esports have increased the visibility of esports culture and provided opportunities for women to play in a private space. The reasons that mobile esports became popular are more complicated than the discussions presented in this section demonstrate, and a detailed discussion of the popularity of mobile esports will be presented in the Chapter 6. What is worth noting is that historical influences on women who play computer games created barriers regarding women's participation in esports. As mentioned in the last section, the women involved in this study prefer to follow popular games and maintain a lower level of loyalty to the game. Consequently, the stereotypes that women are casual and less skilled players are reinforced.

Conclusion

According to the analysis of both the quantitative and qualitative data, technology engagement and in-game skill mastery have been identified as the most obvious obstacles facing more widespread women participating in esports. However, the rapid development of mobile esports has limited the negative influences of those two obstacles and improved women's participation in mobile esports. In addition, gender stereotypes still prevalent in the gaming culture were found to negatively influence women's participation. The esports field is still accepted as a male-dominated area which marginalises women. Even though a large number of the responses to the questionnaire (77%, n = 252) disagreed with the idea that the esports are not suitable for women and 36% of the respondents (n = 252) stated they are willing to meet women playing esports games, unfortunately, this research found that gender stereotypes not only marginalise women from participating in esports but also guide women esports player to model themselves after gender stereotypes (Vermeulen & Van Looy, 2016).

Furthermore, from the perspective of the women esports player, lacking digital experience is another influential factor preventing women from taking part in esports. It has been revealed that women esports player prefer to follow gaming trends and maintain a lower level of loyalty towards the esports games they play. The analysis indicated that those features shown by women esports player are deeply grounded in the history of Chinese digital gaming and game culture. The development of video games in China experienced a unique period due to the background of global video game development, Chinese history and Chinese game policies. The blank period in Chinese game development during the era of console games has significantly influenced both the Chinese game industry and Chinese players. On one hand, the restricted development of Chinese console games and their limited market has contributed to the boom in online games in China since the early 2000s (Peng, 2005). On the other hand, it culturally marginalised video games from potential players' daily lives and deterred Chinese players from obtaining experience playing video games during the era of console games. Additionally, during the early stages of the popularity of online games, women were discouraged from playing online games in public places. As a result, the women who participated in this research have been found to have little experience of playing either video games or esports before they started playing mobile

esports. Consequently, from the cultural perspective, the masculinity of esports may be reinforced, and gender stereotypes are seen to exist continuously in esports culture.

Overall, these obstacles have influenced women' general participation in esports. Those obstacles have been identified by existing game studies with evidential discussions. The analysis presented in this chapter has aimed at evaluating those research findings within the esports context using primary data. Considering that esports research is still in its infancy, the discussions in this chapter should be able to provide evidential and empirical outcomes for further research focusing on women's participation in esports. One point must inevitably be mentioned here. This chapter paid attention to the history of Chinese digital gaming and related policies in order to arrive at a comprehensive understanding of the data from the fieldwork. Even though this issue has already been discussed in the methodology chapter, it is still worth arguing that the study's regional context, which has been widely neglected by currently game research, should be included as an indispensable element.

Chapter 5
Women's motivations for participating in esports

Introduction

As well as exploring difficulties that women may meet in their participation in esports, investigating their motivations for playing is another effective way of understanding the characteristics and level of their participation. In this chapter, the discussions focus on women's motivations and preferences when playing esports. The findings presented in this chapter aim at providing a direct answer to Research Question #2. While the idea that women prefer to play feminine games subsists, it becomes more necessary to investigate those women who play competitive video games. Exploring elements that stimulate women to play competitive video games can help to establish a more comprehensive understanding of women's participation in both esports and the broader context of video games. As mentioned in the chapter of literature review, this research initially explores women's preferences and motivation with the guidance of Yee's work (2006). In detail, this research explored the motivation of social, achievement and immersion in both of the questionnaire and focus group interviews.

First of all, in line with previous game studies (Taylor, 2003; Carr, 2005; Hayes, 2005; Yee, 2006; Williams et al., 2009), this chapter argues that social interaction is one of the core motivations for women to play esports. Given the nature of esports as multi-player online games, it is not surprising that social interaction is one of their core features. It is necessary to mention that the motivation of social interaction has been particularly associated with women's participation in video games for a long time. However, what has rarely been mentioned by previous studies is that it appears to be attractive to men as well in playing esports. Secondly, this chapter explored how the motivations of achievement and immersion stimulate women to play esports games. As overwhelming attention has been paid to the link between women and the social motivation, a common consequence is ignorance regarding women's diverse motivations for playing video games. By analysing the data collected from the

fieldwork, this chapter further emphasises that achievement and immersion are important experiences for women in playing esports. Moreover, competitiveness, which has been argued to be an element deterring women from playing video games (Kafai, 1996; Bryce & Rutter, 2003b), is proved in this research to be a key element associates with women's experiences of immersion. Finally, this research detected the motivation of obtaining career development as an influential element for women to play esports games. This motivation has rarely been mentioned in previous game studies. However, the rapid and diverse developments of esports are providing an increasing number of job opportunities for women to join this industry. Against this background, this research detected that some women appear to participate in esports game play because of job-related opportunities.

Before presenting a detailed discussion of women's motivations for participating in esports, this thesis suggests a dynamic view to understand players' motivations and preferences for playing esports. This is in accordance with Taylor's (2003) argument that players have multiple motivations for playing video games. Categorising players' motivations into different types can contribute to a clear and organised understanding of players. However, players' different types of motivations not only stem from their personal preferences, but also from their playing experience. This is to say players may have multiple motivations for playing and their motivations and preferences may change in accordance with their playing experiences. In this research, players' motivations and preferences for playing esports has been found to be variable process which is highly associated with their degree of participation. Ignoring multi-motivations may limit the significance of the research outcomes for studies focusing on players' motivations and preferences. For instance, Suznjevic and Matijasevic (2010) argue that achievement is the main motivation for players to participate in video games. On the contrary, the social motivation is emphasised in Frostling-Henningsson's (2009) study as the core motivation. The inconsistency between those two studies illustrates the importance of keeping a dynamic view of players' motivations and preferences for playing esports; as Yee states, players' various motivations 'do not suppress each other' (2006, p.774). In this chapter, discussions around each motivation are presented separately in order to present the findings in a clear way. However, this structure is in no way intended to suggest that those motivations and preferences should be understood

as individual, compartmentalised elements. This chapter starts with discussions of motivations include social, achievement and immersion. Apart from those three motivations, the last section of this chapter presents discussion of how the motivation of obtaining career development inspired women to play esports. This motivation was rarely been mentioned by neither previous video games studies nor esports studies.

Social Intercourse

The need to obtain social interaction has been stressed as the core reason for women to participate in online computer games (Taylor, 2003; Yee, 2006; Williams et al., 2009), but this motivation has rarely been associated with men participates. In line with previous research outcomes, this study finds that the social motivation is highly associated with women's participation in esports. What is worth noting is that, rather than social motivation being a uniquely women characteristic, the evidence also suggests that men are largely motivated by socialising as well.

Sociality of esports

When investigating esports players' motivations and preferences for participating in esports, the data from the fieldwork revealed that both men and women are motivated by the social component. The clearest evidence emerged from the online survey, in which Question 9 asked players to identify their motivations for playing esports, with multiple options provided. The men respondents scored slightly higher than women respondents on the motivations of achievement (3.3% higher) while women scored 2.6% higher than men on the motivation of entertainment. Interestingly, men also scored slightly higher than women on social motivation (3.2% higher), This result shows that both men and women are more or less driven to play esports by a similar requirement for social interaction. This result is not fully in accordance with the gender stereotype that social interaction is the primary reason for women to play video games (Hayes, 2005). The problem is that when previous studies associate the motivation of social interaction with women particularly, it is inappropriate to ignore its relationship with men or to transfer such an idea to the specific field of esports. In fact, gender differences

towards the motivation of social may be less apparent than previous arguments suggested. As Yee indicates men are also motivated by social interaction since 'male players socialize just as much as female players' (2006, p.774).

In fact, it is not surprising that the motivation of social interaction appears to be influential for players in participating in esports. In Yee's (2006) discussion of the components of social interaction in online games, socialising, relationships and teamwork are identified as three core aspects. In the realm of esports, the playing process generally happens with other players and includes copious chat and cooperation. Obviously, social interaction is a fundamental element of esports. Thus, arguing that the core and leading reason for women to take part in esports is their expectation of social interaction cannot provide a comprehensive understanding of women's participation in particular. At least according to the responses collected in this study's questionnaire, it appears that both men and women are similarly driven to play esports by social requirements. In other words, social interaction is a main feature of esports play and it influences both men and women.

Another remarkable result revealed by the data is that the social function of esports is improving and esports itself is becoming a platform for the players to establish their social relationships. According to the data from the questionnaire, 70.6% of the men reported that they have offline interactions with in-game teammates, while 52.2% of the women reported the same. More than half of the participants, irrespective of gender, emmesh their social relationships with their participation in esports. This result challenges the argument that men are more likely than women to regard digital games as a platform for socialising with friends (Connolly et al, 2012). Even though the data presented above illustrates that men have a higher degree of offline social interaction with their in-game teammates, it is worth noting that women also report a high degree. What can be concluded from the data is that social interaction is a typical feature of playing esports and has a considerable influence on both men and women. However, it is not sufficient to say there are no gender differences regarding the social motivations for participating in esports. In the actual process, this research further detected men and women are influenced by social interaction through different aspects, which are discussed in the next section.

Women's participation influenced by Social

When understanding players' motivation of playing esports individually, discussions presented above show there is no obvious gender differences towards the motivation of social. However, with further analysis of data collected from the field, I found the relationship between women and the motivation of social is complicate in playing esports. In this section I will look at how the motivation of social influences women's participation in esports. Firstly, social intercourses and experiences influenced the way women initially take up esports. Secondly, by evaluating players' participation frequencies under different conditions, this section discusses how in-game companions, intimate relationships and engagement with the esports community relate with women's participation frequency in esports.

With the popularity of esports, it is not surprising that the majority of women know this activity. However, the question remains to be how women come to play esports. This question appears to be typical since Chapter 4 illustrated the limited previous experiences of playing video games is one of the difficulties women face in participating in esports. Their comparatively weak relationship with both video games and the game culture has historically hindered women's participation. Under this background, this research detected that social intercourses plays an important role in influencing women to start to play esports. From a basic level, both men and women participated in focus group interviews reported that recommendations or invitations from friends were one way that they identified opportunities to participate in esports. However, the women interviewees' responses highlighted the motivation of socialising, while this motivation was rarely voiced by the men interviewees. Two typical excerpts from the focus group interviews illustrate the differences in how social intercourse influenced the ways players come to esports:

> *'Most of my friends were playing it (*HoK*), and they invited me to play with them, then I joined'* (women interviewee in Focus Group 3, journalist, 2018).
> *'I heard this game was exciting and I had never tried this kind of game, then I watched the videos and found them absorbing. Finally, I joined'* (Men interviewee in Focus Group 6, teacher, 2018).

Both the men and women interviewees mentioned social intercourse as an influential element that attracted them to esports. The differences between those two quotes is that the women interviewee cites social intercourse as the core motivation for her to participate in esports, while the men interviewee's response shows a process of evaluating whether the game matches his taste. Numerous responses similar to the above were obtained during the fieldwork. When the focus group interviewees were asked to talk about the ways they came to esports, the majority of women reported that friends inviting them to play was their primary reason. Typical responses from women interviewees include,

> *'I was invited by my classmate; they play it every day and I'd like to join them.'* (Women interviewee in Focus Group 3, student, 2018)
> *'I watched my cousin playing* LoL *and he talked lots about the game and invite me to play every day.'* (Women interviewee in Focus Group 4, student, 2018)

What reflected from the majority of women interviewees' statements is that inviting by friends and relatives is one of the most important way for them to take up esports. From those quotes, it is clear that women respondents linked their participation in esports to the invitation from other directly.

When comparing women's responses with men's, the way men come to esports appear to be diverse. Advertising was reported to be another source for approximately half of the men to establish their relationship with esports games, while only one of the women interviewees reported advertising as a factor. This outcome is contrary to Terlecki et al.'s (2011) suggestion that advertisements are recognised as one of the key sources influencing both men's and women's preferences when choosing a video game. This finding echoes the argument presented in the previous chapter, which indicated that men are more familiar with video games and have more diverse pathways to know about them. Since advertising was reported by only one of the women esports player, it is appropriate to infer that men come to esports using different pathways, while women's primary concern in coming to esports is social intercourse. What need to be mentioned again is that this is not to say the social motivation is the principal reason

for women to participate in esports; it is only argued that it is a vital reason for women to initially come to the field of esports.

Apart from influencing the ways that players take up esports, the motivation of social interaction was also found to affected women's participation behaviour in esports. First, data from the questionnaire revealed that in-game companions are highly associated with women's participation frequency. Among those respondents who had stable companions to play with, 61.8% (n=34) of the women reported a moderate to very high participation frequency while 74% (n=88) of men reported the same. This indicates that both men and women with high participation frequencies have stable game companions. On the contrary, among those respondents without stable esports companions, the women (96.7%) outnumbered the men (43.6%) to a considerable degree in reporting that they play esports with low frequency. This data clearly shows that if players do not have stable companions to play with, they are likely to show a low participation frequency. Meanwhile, women's low participation frequency appears to be particularly associated with the presence of in-game companions. Long-term social intercourse should be noted as an element influencing women' participation frequency in esports.

This result contradicts the idea that the social motivation is fading in the area of esports (Weiss, 2011). It is also worth noting that social interaction is an important motivator for both men and women. Moreover, women's participant frequency appears to highly associated with stable long-term companionship while playing esports. This result is unsurprising because one of the indispensable features of esports is the social interaction between players. As Seo and Jung (2016) argue, participating in esports is 'beyond the boundaries of self-contained digital play and leisure … (and the) the gaming experience is embedded within the broader frames of social activities' (p.637). Since playing esports provides abundant social interaction, it is predictable that the motivation of social interaction is important to players' participation. At the same time, gender differences detected in the relationship between players' in-game companionship and participation frequency could contribute to better understanding women esports player.

Second, the data sheds further light on participation frequency in the context of intimate relationships. According to the responses to the questionnaire, there was no apparent

connection detected between intimate relationships and participation frequency among men participants. However, when it comes to women responses, the data shows that there is a positive relationship between being in an intimate relationship and players' participation frequency. Specifically, 14.8% of the single women respondents reported a high degree of participation while 31.8% of women respondents in relationships and 44.4% of married women reported the same participation rate. This is to say that among the women esports players, individuals in intimate relationships are more likely to report a high playing frequency. According to focus group interviews, two typical quotes can provide further information towards this phenomenon.

> *'I often play* HoK *or* PUBG Mobile *with my boyfriend at night. We are in a long-distance relationship and this is the daily routine for us'* (Women interviewee in Focus Group 2, student, 2018).
>
> *'I wish to play with my boyfriend, if I have one ... I play with couples sometimes, you know, (my) teammates may invite their partners sometimes. I think it's interesting to play with partner.'* (Women interviewee in Focus Group 2, researcher, 2018)

The first statement highlights that the intimate relationship is one of the important reasons for her to play esports games. At the same time, the second statement shows that even for single women, playing with partner is attractive. This clue vividly shows that the meaning of playing esports may go far beyond entertainment itself. This phenomenon somehow recalls Liu's (2019) study of video games can be dating platforms for the young generation. In playing esports, statements presented above suggest the increasingly diverse role of esports for players. This is to say, in the process of understanding women's participation in esports, the intimate relationship may be one of the subcomponents of the motivation of social.

Third, the questionnaire explored the relationship between players' participation in the esports online community (Question 13) and their participation in esports (Question 12). The results further support the idea that the motivation of social interaction has a greater impact on women esports player. The Pearson correlation coefficient was adopted to calculate esports players' participation in online streaming and their participation frequencies in esports. No obvious relationship was detected within the men group

(r=0.163, n=160, p=0.039) while an obvious and positive correlation was detected within the women group (r=0.477, n=92, p<0.001). This data shows that women who watch esports online streaming with high frequency are more likely to play esports with high frequency. As was suggested in the literature review, participation in online streaming is an important way for players to engage with the esports online community, and it has considerable effects on their level of fandom. Moreover, a recent study points out that watching esports online streaming is an important part of esports social practices (Liu, 2017). Thus, the result clearly demonstrates that engagement with the esports online community is positively associated with women' participation in esports. However, it must be noted that while 66.25% of the men respondents to the questionnaire reported watching esports online streaming, only 40.22% of women responded the same. Even though watching esports online is positively associated with women's playing frequency, it is necessary to point out that when it comes to this activity women report a lower engagement level than men.

In summary, the research that I conducted suggests that social intercourse influences women's participation in esports more obviously than men's. Those influences are mainly apparent in the ways women come to esports and their participation frequency. Moreover, the questionnaire data further illustrates how social intercourse influences women's participation in esports through three aspects: in-game companions, intimate relationships and engagement with the esports online community. Even though this research detected that the motivation of social interaction is important for men and women in playing esports, it still has a greater effect on women.

Imbalance of social resources

While it is clear that women's participation in esports is largely influenced by social intercourse, this research further detected an obvious gender gap in social resources between men and women in playing esports. This thesis adopts the term 'social resources' to describe the extent to which players obtain social interaction while playing esports games. Since the discussions presented above illustrate that social intercourse correlates with women's participation in esports, it is important to explore to what

extent playing esports enables women to experience such social interactions. The data from the questionnaire shows that men experience social intercourse to a larger extent than women. This result invites consideration of the fact that although esports has a strong social function and women's participation is largely motivated by social intercourse, there remains a clear gender gap when it comes to actually experiencing these social interactions.

The first aspect in evaluating players' experiences of social interaction is to focus on their stable in-game companions. Playing with others as a team is a typical feature of esports since it involves a considerable level of cooperation between players (Trepte et al., 2012, p.833). Moreover, studies suggest that establishing stable in-game companionship is important to draw women into video games. As Cole and Griffiths (2007) suggest, women prefer to play games 'within social communities that encourage exploration of an environment with others as a team' (p.581). This idea is verified by the data from the focus group interviews. When asked if they prefer to play with friends or alone, women said they preferred to play with friends and men implied that both situations are attractive. Since this was one of the main questions addressed in the focus group interviews, the responses are abundant, but the following two excerpts can be viewed as typical examples of men's and women's attitudes towards playing with friends.

> *'Of course, I would prefer to play with my friends. Playing alone is boring for me'* (women interviewee in Focus Group 4, student, 2018).
> *'It depends. I play alone when my friends are not online. Playing alone is common for me'* (Men interviewee in Focus Group 3, student, 2018).

Reviewing all the responses to this question, only two of the women interviewees reported that they prefer to play alone as well as with friends. On the contrary, the men interviewees generally reported that they feel fine either way. However, although women appear to be more interested in playing esports games with stable friends, the questionnaire data has already shown that women have fewer stable playing companions than men. As the previous section showed, 74.4% of men and 59.8% of women reported having stable in-game companions. This data indicates that playing with friends, or at least with familiar people, is a core means of participating in esports.

However, the data further suggests that nearly half of women respondents (40.2%) lack stable in-game companions. Obviously, when it comes to stable in-game companions, men are obtaining more social resources than women. Thus, considering that women prefer to play with friends, the 40.2% of women players who lack stable in-game companions are significant. This result suggests the possibility that even though social intercourse is an important element attracting women to play esports and esports itself has a strong social function, women's requirement of social interaction may be less likely to be fully satisfied.

Apart from their stable in-game companions, this research also evaluated men's and women's out-of-game interactions. According to the questionnaire, men players (70.6%) outnumbered women players (52.2%) by approximately 18.4% when it comes to having offline interactions with in-game companions. Having offline companions was reported by men and women respondents in similar percentages to those who reported having in-game companions. In fact, even though previous studies from the field of psychology indicate that playing digital games may lead to social isolation (Zimbardo, 1982), an increasing number of studies are emphasising that computer games actually have a limited influence on social isolation (Colwell & Kato, 2003; Orleans & Laney, 2000). Furthermore, online social intercourse has been suggested to extend to the offline context and should be noticed as an essential aspect of evaluating social intercourse among digital game players, especially esports players (Trepte et al., 2012). Thus, in the context of this study, the finding presented above further supports that social isolation was not detected in playing esports. On the contrary, social intercourse within both the online and offline contexts is one of the core motivators for players to participate in esports. However, the other finding illustrated by the data above is that men have more offline interaction with esports companions than women. A possible explanation towards this phenomenon is that the esports culture remains to be a masculine culture. This feature has limited the extent that women's requirement of social interaction and communication from been satisfied. In Chapter 6 and Chapter 7, this thesis presents detailed discussion of the masculinity in esports culture and its influences on women's participation.

Conclusion

This section first revealed that the social aspects of gaming are core motivation not only for women but also for men to play esports. This finding is not strictly consistent with previous understandings of women as being particularly influenced by social motivations (Williams et al., 2009; Carr, 2005; Taylor, 2003). Instead, it initially suggests that social interaction is one of the major motivations for both men and women to participate in esports. Moreover, this research has detected that social interaction in playing esports is more likely to happen within familiar friends rather than random teammates. What needs to be pointed out is that there remain gender differences in the social intercourse associated with playing esports. Firstly, at the early stage of attracting player to play esports, social intercourses appear to be the dominate elements to women. Secondly, more men than women have out-of-game relationships with players and this enhances their experience of esports. Whereas women tend to have less out-of-game relationships, which limits their social interaction to just the game space.

These findings partly echo Yee's idea that men and women 'are looking for very different things' regarding social intercourse in computer games (Yee, 2006, p.774). An appropriate conclusion is that both men and women are stimulated by the motivation of social intercourse to a large extent, although it appears to be more influential for women, yet they have few opportunities to socialise. This was pointed to by the further exploration that I conducted of the social intercourse in esports, which revealed an imbalance in social resources for men and women. In other words, men experience social interaction in esports to a more significant extent than women because men obtain more social resources in esports than women. Therefore, even though women esports player have been found to be attracted by social intercourse to a larger extent than men, women' requirements of social interaction are far from satisfied due to their lack of social resources.

Motivation of Achievement

Previously, women have been described as being interested in casual games requiring a lower level of in-game skill and involving less competitiveness (Hartmann & Klimmt,

2006; Hayes, 2005). While esports involves a high level of competitiveness and requires players to master a set of in-game skills, it appears to be less likely for women' participation in esports to be stimulated by the motivation of achievement. However, this research has detected something different. From my fieldwork it appears that women's participation in esports is stimulated by the motivation of achievement to a notable extent. In detail, women and men appear to be stimulated by this motivation to different level and they emphasised the different aspects of that motivation. Moreover, unlike previous studies which insist that the motivation of achievement rarely exists for mobile games (Engl & Nacke, 2013; Wei & Lu, 2014), this research further proves that the motivation of achievement exists for esports players using both PCs and mobiles.

The motivation of achievement

In the process of evaluating to what extent the motivation of achievement stimulates women's participation in esports, direct evidence was revealed from the questionnaire. On the questionnaire, 26.1% of the women (n=24) and 34.4% of the men (n=55) confirmed that obtaining feelings of achievement is one of their motivations for participating in esports. Comparing with other motivations, less participants reported achievement as one of the core motivations of playing esports. For instance, 78.75% of men and 77.17% of women reported entertainment as a motivation, at the same time, 38.75% of men and 30.43% of women reported the motivation of social. However, what is notable is that, as one of the motivations specifically been associate with competitiveness and improving in-game skill, data from the questionnaire did not show considerable gender differences on it. Primarily, the data reveals that both men and women can be stimulated to play esports by the motivation of achievement.

Further analysis illustrates that this motivation is associated with players' participation frequency. Ryan et al. (2006) explain that the sense of achievement motivates players because of their psychological need for competence. As Ryan describes,

> *'factors that enhance the experience of competence, such as opportunities*
> *to acquire new skills or abilities, to be optimally challenged, or to receive*

positive feedback enhance perceived competence, and in turn, intrinsic motivation' (Ryan et al., 2006, p.349).

To evaluate how the feeling of achievement stimulates players' participation, my research firstly analysed the relationship between players' motivation of achievement and their participation frequency. According to responses of the Questionnaire, evidence is detected to support the idea that the motivation of achievement can stimulate players' participation in esports to a large extent. Table 6 presented below shows the participation frequency for players who reported to have the motivation of achievement.

Table 6. Participation frequency of those who motivated by achievement

	Participation			Frequency		
	Very low	Low	Moderate	High	Very high	
						total
Men	3.60%	16.40%	38.20%	20.00%	21.80%	100%
Women	17.40%	41.30%	19.60%	7.60%	14.10%	100%

These results not only support Ryan et al. (2006) argument that the motivation of achievement can stimulate players' participation, but also reveals that it has a further relationship with participation frequency. According to this table, 20% of men and 7.6% of women reported that achievement is one of the motivations likely to correlate with a high participation frequency. At the same time, 21.8% of men and 14.1% of women who identified achievement as one of their motivations likewise reported a very high participation frequency. This evidence suggests that players who have the motivation of achievement may participate in esports games more frequently. On the contrary, of the women who reported that they do not have the motivation of achievement (73.9% of all women respondents, n= 68), the data from the questionnaire suggests that 67.7% reported low to very low participation frequencies. Clearly, women whose participation is stimulated by the motivation of achievement are more likely to show a high participation frequency.

What is necessary to discuss separately is that recent study suggests the idea that achievement is an insignificant element in understanding players' participation in mobile games (Wei & Lu, 2014). However, this thesis emphasize it is important and necessary to explore the motivation of achievement in order to understand both men and women esports player. This is because responses of the questionnaire of this research involves players from both PC and mobile esports games. This is to say the data presented above indicates the motivation of achievement is influential for players from both PC esports and mobile esports. Ignoring the importance of the motivation of achievement may hinder researchers from obtaining a comprehensive understanding of players in view of the explosive growth of mobile esports. Thus, it is vital to establish the notion that the motivation of achievement is strongly associated with players' participation frequency in both PC esports and mobile esports.

Accumulation, mechanics and competition

Discussions presented above illustrate achievement can be a motivating factor for both men and women to play esports from both PCs and mobile devices. What is important to be noted is that achievement as a nuanced motivating factor, women appear to be interested in different aspects of achievement comparing with men. Before presenting detailed results about the gender differences regarding the motivation of achievement, it is necessary to discuss the definition of achievement. From an industrial perspective, the motivation of achievement is described like this:

> *'The core design of esports games includes two parts: the Battle Release and the Accumulation. The Battle Release describes the player's desire to have competition with others, and the Accumulation means the player's desire to improve their game skill and proceed through the in-game growth system (in-depth interview, Liu, 17th January 2018).*

Liu explained that the term 'in-game growth system' refers to ways the game rewards players for their progress, for example by unlocking new levels, increasing their score, giving them new equipment and so forth. In fact, Yee (2006) suggests that achievement

is one of three core motivations for players to participate in online games, while identifying three components of achievement: accumulation, mechanics and competition. Yee describes the component of competition as the player's 'desire to challenge and compete with others' (2006, p.771), which matches Liu's description of the Battle Release. At the same time, improving skill mastery and accumulating achievements in the in-game system (e.g., unlocking new levels) is similar to Yee's idea of advancement. This research mainly adopts Yee's understanding of advancement, mechanics and competition as the three main components of the motivation of achievement. Specifically, advancement refers to players' desire to improve skill mastery and accumulation achievements in the game's growth system, such as unlocking new levels. The idea of mechanics represents the player's 'interest in analysing the underlying rules and system', and advancement refers to the player's 'desire to gain power, progress … status' (2006, p.771). In the focus group interviews, men emphasised all three components – accumulation, mechanics and competition – while women focused mostly on accumulation.

First, when interviewees were asked to talk about the most attractive aspects of playing esports, the sub-coding of 'ranking' (which falls under the main coding of 'positive elements') appeared more than 28 times in the records of all six focus group interviews. The coding of 'ranking' represents the ranking systems that exist in the majority of esports games, which rank players according to their performances. These ranking systems usually include an overall ranking status and a series of other data associated with players' performances. For instance, the overall status in *Honor of Kings* ranges from the lowest, Bronze, up to Silver, Gold, Platinum, Diamond and Challenger. At the same time, related data such as hero win-rate and most played hero is also presented in players' profiles. In reviewing the transcriptions of the focus group interviews where the sub-coding of 'Ranking' appears, it was revealed that the women participants showed more interest in the overall status ranking while men emphasised both the overall status ranking and other related data rankings. A very typical response displaying women's interests in improving overall status is shown below:

> *'I play very frequently when I am going to upgrade to the next status. I want to have a higher status; everyone can see my status from my profile anyway'*
> (women interviewee from Focus Group 4, student, 2018).

This statement is fully concentrated on the player's overall status. Among the 28 places where the sub-coding of 'Ranking' appear, 26 of those responses presented clear interests on the overall ranking. Only two of those 28 responses mentioned interests in other in-game data which are shown below:

> *'I may go through data like the KDA[6] sometimes. I'd like to know how many contributions I have made to each play.'* (women interviewee from Focus Group 2, researcher, 2018)
> *'My data of Lion[7] is really good, and my win rate of this hero is more than 50%.'* (women interviewee from Focus Group 3, teacher, 2018)

At the same time, the transcriptions of the focus group interviews contain abundant data associated with men' interests in both overall ranking and other data. As one of the participants described:

> *'I will check the data analysis page when the game is finished, especially when I feel I had an excellent performance … (and) I would like to know if I made any mistakes that lead to the game being lost'* (Men interviewee in Focus Group 4, designer, 2018).

It is noticeable that even though both men and women mentioned accumulation as a part of their motivation of achievement, the overall ranking attracted the majority of the women. This suggests that a gender difference exists in attitudes towards accumulation. Men appear to have a more comprehensive and meticulous attitude toward accumulation, while women's attitudes appear to be more concentrated on their overall evaluation. It is not clear whether this gender gap is associated with the level of the player's motivation for accumulation. What this result suggests is that the deep reasons for players to have the motivation of accumulation are diverse. A previous study suggests that the ranking system provides an opportunity for players to 'acquire a reputation within' the gaming community (Ducheneaut et al., 2006, p.1). Therefore,

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[6] KDA is short for the ratio calculated by kills, deaths and assists in each play. It is a common data used in MOBA games to evaluate players' contribution to each play.
[7] A hero of *DOTA 2*

men and women pay attention to accumulation in playing esports may because of their desire to pursue reputation in the game community. Meanwhile, the gender gap detected in the component of accumulation indicates that women may be more interested in obtaining reputation within the game community.

Second, the desire to analyse the underlying rules and system of the game, which is called 'mechanics' in this study, was rarely reported by the women participants in the focus group interviews. Meanwhile, the majority of men interviewees reported experiences they had had and were interested in discussing tactics and operations to improve their performances. This gender gap was particularly evident in the mixed-gender focus group. When the topic of esports mechanics arose, the majority of the women interviewees remained quiet while the men talked. The men esports players appeared to be more interested and confident in discussing the mechanics of the games. This is not surprising since mechanics is important for players to improve their in-game skill mastery, which this thesis has previously argued is not a driving factor for women's participation. Consequently, the women interviewees' silence during that part of the focus group interviews seems predictable. However, it is not enough to say that women are not motivated by game mechanics to play. Women's responses associated with mechanics occurred three times across the six focus groups. Even though a limited number of women participants spoke about mechanics, the total interest might be higher because two of the all-women focus group interviews did not broach the topic of mechanics. It is possible that women pay more attention to other attractive elements, such as social intercourse, rather than emphasising mechanics directly. Thus, further research could evaluate how and to what extent women are interested in mechanics in eSport games.

Third, while direct competition, such as combat, has been identified in early video games research as an element that makes women uncomfortable (Kafai, 1996; Bryce & Rutter, 2003b), this study found that the competitiveness of esports is an attractive element for women. One of the core pieces of evidence is that more than half of the women interviewees reported that they prefer to play the position of the Carry, a particular role in MOBA games. Players in this role are anticipated to make the most significant contribution to the team (to 'carry' the team) and are regarded as the core of each battle during the middle and late periods of a game. Under most circumstances,

the Carry is described by Zhu, the leader of professional esports team Team Shinning Love, as *'the one who always needs to fight with the opposite side, and usually is the one who can't hide behind other team members'* (in-depth interview, 4th January 2018). That descriptions illustrates that playing the role of Carry means engaging in the most competition of anyone on the team. While asking the question of 'Which position do you prefer to play?' in focus group interviews, the Carry has been reported by women interviewees for 12 times. Among those 12 responses, the Carry comes out to be the first answer for 5 times. This data illustrates women responses of this research shows interest in the position which involves a certain level of direct competition and combat. It is conflict to the idea that women are less interested in competitive elements in playing video games (Ray, 2003; Hayes, 2005).

However, in the actual playing, women's interest in playing the Carry does not mean that they usually play this position. In other words, further data from focus group interviews show that although women prefer to play the carry, they are prevented from doing this by men teammates. As a women interviewee said, *'My teammates always ask me to play support heroes. They [men players] believe they are better than me'* (women interviewee of Focus Group 4, student, 2018). Among the women who said they like to play the position of Carry, satisfying teammates was reported to be the core reason for their low frequency of playing that position. Moreover, one respondent stressed that gender stereotyping is one of core issues preventing her from playing the Carry:

> *'I never played Carry when my teammates want to win seriously. They don't think I can take responsibility of the Carry… honestly, I know the responsibility of losing the game is always attributed to the Carry, a women Carry'* (women interviewee in Focus Group 4, student, 2018).

This response demonstrates the trend that women responses compromise with their men teammates when playing esports. It indicates that women may hold a subordinate status in actual playing. A possible explanation is that men generally have a stronger need to win (Hartmann & Klimmt, 2006). Moreover, as discussed in former sections, men participants in this research show a higher capability regarding in-game skill mastery

and esports mechanics. Therefore, while men showing a comparatively high level of playing capability, their desire to win may drive to women's compromise.

At the same time, this quote shows that women participants appear willing to avoid responsibility for losing games, particularly when that responsibility is magnified due to gender stereotypes. Thus, the comparatively low percentage of women who reported achievement as their motivation for playing (26.1% of women and 34.4% of men) may be partly due to their limited chances to engage in direct competition. In other words, women participated in this research clearly show their interest in competitions in playing esports. However, their interests of meeting direct competition in playing may not be satisfied due to their compromise with men teammates. While women have 'portrayed themselves as less competitive… [and are] less self-confident about their ability to master competitive game situations' (Hartmann & Klimmt, 2006, p.925), women may not report competition as an element that attracts them to esports. Therefore, competition should no longer be regarded as a dislike of women in esports. Instead, it should be regarded as a limited motivation which is intertwined with gender stereotypes and women's confidence levels.

Immersion and Flow

The feeling of being immersed in a mediated world (Weibel & Wissmath, 2011) has been suggested by previous studies to be a considerable motivation for players to take part in computer games (Yee, 2006; Curran & Kirakowski, 2011; Cairns et al., 2013). In these studies, spatial presence and flow are the two main paths scholars take to explain the motivation of immersion (Brown & Cairns, 2004; Hsu & Lu, 2004; Weibel & Wissmath, 2011). Immersion was frequently mentioned by this study's participants, who shared their experiences. Meanwhile, evidence suggests that the immersive experiences reported in the fieldwork were mainly the result of the competitiveness in gameplay and the high level of realism involved in fighting with a real person in real time. Gender differences were detected in analysing the participants' immersive experiences.

The initial result emerged that both men and women reported experiencing immersion as one of their motivations for taking part in esports, but women's experiences of immersion are different from men's. For instance, the women respondents reported having experiences of immersion after a period of playing esports, while the majority of men reported such experiences at their early stages of their participation in esports. These differences could partly be explained by the argument that immersive experience is positively related to the balance between game difficulty and players' skill mastery (Qin et al., 2010). However, this research reveals that women's immersive experiences in playing esports are associated with a number of factors, rather than simply being based on game difficulty. It is therefore striking that the data also shows that a player's immersive experience in esports is largely due to the competitive element of the game. Competitiveness does not specifically refer to difficulty level, but to intense competition with hostile players and the social interaction among all the players. Competitiveness leads to players experiencing highly realistic feelings during intense gameplay, increasing the possibility of experiencing flow (defined below). As well, competitiveness in intense gameplay has been shown to have a relationship with spatial presence theory (Brown & Cairns, 2004), while social interaction (Hsu & Lu, 2004) and game difficulty (Qin et al., 2010) have been identified as influences on the flow experience. The immersion experiences reported by women indicate that high levels of competitiveness and social interaction allow women to experience immersion in esports, even if they have a relatively low level of mastery.

This section first discusses the immersive experience in digital gaming. It also considers flow theory and spatial presence, the two principal directions for exploring immersive experiences, and illustrates how these two psychological concepts apply to the field of digital games. Second, this section looks at the gender differences of immersive experiences in esports and how these experiences are associated with players' participation. Finally, the suitability of the term 'competitiveness' as the core factor explaining the immersive experience in esports is discussed.

Identifying immersion in esports

Within video gaming studies, the experience of immersion has been suggested to be part of players' motivation (Hsu & Lu, 2004; Yee, 2006) and an essential part of the gaming experience (Brown & Cairns, 2004; Weibel & Wissmath, 2011). However, these studies provide vague clues to apply to the investigation of immersion in esports because the definition of this experience is still in dispute. An early investigation carried out by Yee suggests four components of immersion in computer games: finding and knowing things in games (Discovery), playing in-game roles and interacting with other players (Role-Playing), customising the in-game role's appearance (Customization) and escaping from problems in real life (Escapism) (2006, p.774). This taxonomy provides a useful framework for video game researchers focusing on players' experiences of immersion.

However, Yee's taxonomy is based on an investigation of 30,000 MMORPGs gamers, so it might not be sufficient to illustrate how immersive experiences influence players' participation in esports. For instance, the taxonomy sheds little light on the relationship between players' skill and the difficulty levels of the games (Qin et al., 2010). In order to carry out a clear exploration of the influence of immersion on esports players, this study adopts research outcomes from the field of psychology. Specifically, this study uses the experiences of flow (Csikszentmihalyi & Csikszentmihalyi, 1975) and spatial presence (Slater et al., 1994) as key elements to explore players' immersive experiences in playing esports.

The flow experience, initially suggested by Csikszentmihalyi and Csikszentmihalyi (1975), is described as 'the holistic sensation present when we act with total involvement' (p.43). Flow experience, as a kind of motivation, can heighten individuals' interest in participating in an activity through 'the ability to enjoy challenges and then master them' (Csikszentmihalyi et al., 2014, p.235). In the context of esports, mastering challenges suggests developing in-game skills and then winning in-game contests. In addition, in the application of flow theory to the computer gaming field, a number of components are suggested to be associated with flow: total involvement, high levels of concentrating, loss of ego and a distorted sense of time (Csikszentmihalyi et al, 1990; Jennett et al., 2008; Weibel & Wissmath, 2011). As well as flow theory, spatial presence is another idea that can be applied to immersion in computer games. Spatial presence represents a kind of psychological state of 'being physically present in a mediated

world' (Weibel & Wissmath, 2011, p.2; Slater et al., 1994). In relation to computer games, presence both enhances immersion and increases enjoyment (Weibel & Wissmath, 2011).

Currently, there is controversy regarding the concepts of flow and spatial presence and their relationships with the experience of immersion. However, studies on immersion in computer games tend to identify and evaluate immersion using elements suggested by flow theory and spatial presence (Brown & Cairns, 2004; Jennett et al., 2008). Specifically, lack of awareness of the real world, a distorted sense of time, loss of ego, sense of presence in the gaming environment and high levels of involvement can all be used to evaluate immersion in a video game. These elements will be adopted in this study as guidelines to identify the players' immersive experiences.

Immersion as enjoyable experience

According to data from the focus group interviews, both men and women respondents with high frequencies of playing esports game reported immersive experiences. By using the five components presented in the previous section as guidelines to identify immersion, immersive experiences were reported by 14 women respondents (n=18) and 20 men (n=20). Clearly, immersion is ubiquitous in playing esports since it was reported by the majority of the focus group interviewees. Moreover, in accordance with the idea of immersion as a kind of enjoyable experience (Jennett et al., 2008) that has a positive relationship with players' participation (Yee, 2006), women interviewees suggested that immersive experiences stimulated their participation to a certain extent. As one of the women reported in the focus group interview:

> *'I had the feeling of being completely involved and I felt like my whole person was in the game… This feeling is still very cool since I totally forget about all the annoyances in my life'* (women interviewee in Focus Group 4, student, 2018).

This report not only indicates the key elements of immersion, such as involvement and escapism (Yee, 2006) but also expresses a positive attitude toward immersion in esports. In the focus group interviews, five of the women interviewees and 12 of the men described immersion as a joyful experience, such as 'it is very cool' (women interviewee in Focus Group 2, teacher, 2018), 'it is exhausted but really fancy' (Men interviewee in Focus Group 4, student, 2018) and 'I feel extremely relaxed in experiencing it' (women interviewee in Focus Group 3, programmer, 2018). The data shows that immersion is a joyful experience for players and can stimulate their participation in esports.

However, through analysis of the focus group interviews, this research further revealed that gender differences exist in players' attitudes towards immersion in playing esports. The gender differences related to immersion have rarely been mentioned by existing video game studies. On the one hand, women reported a higher frequency of feeling guilty than men, especially when obtaining immersion from esports repeatedly. Meanwhile, evidence suggests that this guilt exerts greater negative influence on women's participation in esports than men's. The guilty feeling reported by women is mainly associated with the sense of wasting time. This guilt associated with immersion, which mainly represents the sense that the player is wasting time, has been pointed out by Brown and Cairns (2004) as a factor in moderating players' descriptions of whether immersion is enjoyable. What is worth noting is that immersion in esports may have a greater influence on women than men. A typical conversation in a mixed-gender focus group illustrates the different attitudes towards immersion in esports held between men and women:

> 'It is good to feel involved in the game, but it often makes me feel like I'm wasting time. I usually spend hours playing every time I feel absorbed by the game; many other things are delayed' (women interviewee in Focus Group 3, teacher, 2018).

To this, a men participant replied:

> 'But that's games. Yes, it takes time but I play it for fun so I rarely feel like it is a waste of time …em… Sometimes I feel guilty, but mostly I feel either

marvellous or exhausted' (Men interviewee in Focus Group 3, programmer, 2018).

According to this exchange, the woman appears to feel guilty more often than the men in playing esports. The guilty feelings are reported to related with the sense of 'a waste of time' and delay of many other things. This is in accordance with Wood et al.'s (2007) idea of the feeling of guilty in playing video game is due to 'the notion that their time could have been better spent doing 'better' things' (p.43), such as exercises and reading. A typical case detected from focus group interviews can illustrate how the sense of losing time effects women participants' attitudes toward esports. As the women interviewee said, '*it's so terrible that you can't image how fast the time goes, I usually sleep late at the night I play the game*' (Women interviewee in Focus Group interview 2, student, 2018). This may not be what immediately comes to mind when thinking about the negative influences of immersion in esports, but it provides an alternative way to think about the role of immersion for women. Moreover, what is notable is that this gender difference is not an anomaly; of those 14 women who reported experiences of immersion, eight mentioned feelings of guilt. This result is in contrast to Wood et al.'s (2007) research outcome of there are no obvious gender differences towards the feeling of losing time. Responses from focus group interviews have clearly shown that women may describe immersion as a kind of enjoyable experience, however, they are more likely to report the feeling of guilt after experiencing immersion to a certain extent. This gender difference has rarely been reported by previous game studies. Even though previous game studies support the idea that immersion is an enjoyable experience that can stimulate players to participate in computer games (Wood et al., 2007), it is still necessary to point out that it is possible that immersion can negatively influence women's participation in esports.

To understand this gender difference, a possible explanation is that the internet and computer games are playing different roles in men's and women's daily life. For example, Ahrens (2013) carried out research to explore gender differences in using the internet at home in Australia and Germany. It shows that men prefer to use the internet to have time on their own and to play. This work highlights using the internet for entertainment is more likely to be accepted by men. Moreover, Wood et al. (2007) directly point out 'significant more men reported that they played videogames for

excitement and/ or relaxation than females.' (p.38). Meanwhile, Wood et al. mention that players report losing time in playing video games is largely due to this experience is 'seen as relaxing, and a way of escaping from everyday stress' (p.43). This is to say it is more common for men to play video games for entertainment and relaxing, and the sense of losing time is an important part of this process. On the contrary, women are less likely to do the same. Women' experiences of losing time in playing esports, on one hand, can be seen as a conflict to their usual practice of using the internet and playing video games. The experience of immersion can be seen as a negative influence on their time. What needs to be highlighted is that differences in using the internet and playing video games are not naturally gendered (Ahrens, 2009). The gendered differences in using the internet should be understood through regional social and cultural context (Li & Kirkup, 2007; Ahrens, 2013). Moreover, since playing video games has previously been suggested as behaviours that not in accordance with women's gender identity (Lucas & Sherry, 2004), this guilty feeling may originate from this conflict. One of the statements collected from the fieldwork further confirmed this reason. As the women interviewee said, 'I often spend a lot of time playing *HoK*. I sometimes don't even realise the time has passed so fast, and I don't have extra time to do skincare. Once I played till midnight' (Women interviewee in Focus Group interview 2, student, 2018). Even though not all women are particularly interesting in doing skincare, however, this response still show playing esports can influence women to do something that may be more in line with their gender identity. Relating to this research, playing video games for entertainment and relaxing has been identified to be behaviours significantly associate with men (Li & Kirkup, 2007) in China. Thus, the gender gap in reporting the feeling of guilt in this research should be partly explained as the demographic feature of responses in this research likewise.

In summary, immersion may stimulate women's participation to a certain extent because it has been reported to be a kind of enjoyable experience. However, when it comes to long-term participation, immersive experiences exert negative influences on women more than on men. This kind of negative influence is mainly associating with the sense of a waste of time. Thus, how to adjust their enjoyment of the game in order to balance their pleasure and guilt should be considered by the esports industry as a key element in women esports players' long-term participation.

The key point for women to obtain immersion

Two core topics have been discussed in Chapters 4 and 5. The first is that women participated in this research, on average, show a lower level of in-game skill mastery, which negatively influences their participation in esports. The second is that social interaction is one of the core motivations for women to play esports. When focusing on immersion in esports, previous research highlights social interaction (Sweetser & Wyeth, 2005; Cairns et al., 2013) and game difficulty and skill mastery (Sweetser & Wyeth, 2005; Qin et al., 2010; Cairns et al., 2014) as the two main elements influencing players to obtain immersion. This research further explores how social interaction and players' skill mastery are relevant to their experiences of immersion in playing esports.

The relationship between social interaction and immersion has been commented on for a long time. However, these arguments present a controversial discussion of the relationship between social interaction and the experience of immersion. Initially, social interaction was suggested to be negatively associated with players' immersion because it is 'a link to the real world that can knock players out of their fantasy game worlds' (Sweetser & Wyeth, 2005, p.10). This argument emphasises that immersion in digital games is generated from the player's contextual experience of the game world. From this perspective, interactions between players are regarded as elements of the physical world that can disrupt players' immersion in the game world. What is interesting is that this conclusion was generated based on an exploration of *Warcraft 3*, which is representative of a typical early esports game. Therefore, Sweetser and Wyeth based their initial findings on the influence of social interaction on immersion on the esports context.

However, the opposite idea has been presented by other game studies. The most remarkable work to go against this argument is a study by Cairns et al. (2013) arguing that playing with real people improved players' immersive experiences more than playing with the computer. This argument is further supported with respect to esports by responses from the focus group interviewees in this study. When the interviewees were asked whether they prefer to play with the computer or with real people, none of them chose the computer.

'Computers have routines and you get used to them quickly' (women interviewee in Focus Group 4, student, 2018).

'Playing with humans is much more fun. You don't know what your teammate will do next, but you know the computer will follow the programme to take the correct action' (Men interviewee in Focus Group 6, salesman, 2018).

These excerpts are not presented in order to argue that artificial intelligence is weak at playing esports against humans, but to show that playing with real people and the social interaction involved increases the realistic feeling of existing in the esports game world. At the very least, this shows that social interaction does not disrupt players' immersive experiences. However, because of the finding that women are more stimulated by the social motivation to participate in esports, further research is required to explain how and to what extent social interaction influences women's immersion in esports compared to men's.

Apart from social interaction, the game difficulty level emerged to be the other element influencing women's immersion in playing esports. Generally, computer games are considered to be sufficiently challenging when their difficulty level is neither too great nor too low compared to a player's skill level. Otherwise, players will feel either frustrated or bored, which reduces their likelihood of obtaining immersion (Sweetser & Wyeth, 2005). In this early attempt to apply this idea to esports, evidence from the fieldwork indicates a paradoxical situation arises. Specifically, the majority of women participants that identified as less skilful reported immersive experiences. This inconsistency between the excessive difficulty level and women's high frequency of experiencing immersion challenges the idea that an appropriate difficulty level is a key element for players to obtain immersive experiences. Drawing on the analysis of the data from the focus group interviews, this thesis provides a new explanation of the relationship between game difficulty level, players' skill mastery and immersion. In eSport, it is not the game's difficulty level, but the balance of skill mastery among all the people playing together that is an influential element for obtaining immersion experiences. According to the discussion in Chapter 4, the difficulty level of the games is an obstacle hindering women from participating in esports. However, in the context

of obtaining immersion, playing with other players who have similar ability levels can increase the possibility for women of enjoying immersion in esports play.

Firstly, similarity of skill mastery among the various players in a game helps players obtain immersion in esports play, even if some players have a lower skill mastery than the general level. The majority of MOBA games have a matching system to ensure that players play with people who have equal skill mastery to them. The matching system is based on calculating each player's winning percentage. When someone is looking for other players to play esports with, the system will ensure that players are matched with others who have similar scores. When an obvious gap in skill mastery exists among players, the player with the lower skill mastery appears to be frustrated, as Sweetser and Wyeth (2005) describe, and is less likely to experience immersion. As one of the interviewees says:

> 'It will be fine if the master [player with a high score] is on my side. If he is my opponent, that will be a disaster…When the master is on the opposing team and controls the game, I just want to finish it and start a new one'
> (Men interviewee in Focus Group 3, programmer, 2018).

Negative feelings have been voiced regarding matches with players who have different score levels. In fact, one key feature that makes esports different from traditional computer games is the multiplayer gameplay style, which emphasises the balance of skill mastery between players rather than the balance between game difficulty level and players' skill mastery. Thus, ensuring a balance among players' skill mastery is a key point for players to obtain immersion in esports, especially considering that on average, women participants appear to have lower levels of skill mastery.

Second, this research further detected that even if players who have considerably limited skill mastery, they still report immersive experiences. To a considerable extent, the matching system in the majority of MOBA games alleviates the issue of women finding it hard to obtain immersion due to their below average level of skill mastery. However, the matching system cannot provide a fundamental explanation for why

women with little skill mastery still report immersive experiences. A typical quote is presented as follows:

> *'I know I am not good at shooting. In fact, I don't think I can shoot people…* *but I feel really excited. I even can feel my heart racing when I suddenly* *hear footsteps or gunshots. It is so real'* (women interviewee in Focus Group 4, student, 2018).

Obviously, this response indicates that the interviewee has very limited in-game skill mastery, but she still feels immersed. Another example that was presented earlier in this chapter is the women who stated that supplying her teammates with bullets while playing *PUBG Mobile* is sufficient for her to feel excited and immersed. Based on those examples, the high level of competitiveness with real people appears to be another key element for women to feel immersed when playing esports. However, it is important to note that those two accounts both deal with experiences of *PUBG Mobile*, which is a fist-person shooter game. Since none of the women respondents in the fieldwork reported having much knowledge of MOBA games, it is hard to evaluate whether women with limited skill mastery can obtain immersion when playing MOBA games. What is worth noting is that the difficult level of an esports game appears to be a side effective element rather than a key element. This is in contrast with the research results of previous game studies.

In fact, it would be more comprehensive to argue that real-time social interaction and competitiveness are the key elements that enable women to obtain immersion in esports even though they might lack the necessary skill mastery. This argument, on the one hand, illustrates that women's immersion in esports is complicated and that influential elements have not been explored thoroughly. On the other hand, it challenges the argument regarding the game difficulty level and players' skill mastery within the traditional computer gaming field. Thus, it is necessary to rethink the question of whether game difficulty level considerably affects players' immersion. Meanwhile, for both academic researchers and the esports industry, combining real-time social interaction and competitiveness should be the other key issue to increase women's immersive experiences in playing esports.

The motivation of obtaining career development

Over the decades, an overwhelming amount of game research has suggested that there is a clear gender gap in the video game industry, and that it is a male-dominated field (Jenkins, 1998; Williams, 2003; Terlecki et al., 2011; Dele-Ajayi et al., 2018). Apart from the argument that women have little interest in video games (Correll, 2001; Ehrlinger & Dunning, 2003; Cheryan et al., 2015), gender stereotypes (Moss-Racusin et al., 2012) and social responsibilities (Ceci et al., 2004) have been attached to women's underrepresentation in computer technology and its relevant industries, such as the video game industry. However, this study has detected that women are taking part in the esports industry with a wide range of positions. Working in the esports industry is becoming an important direction to explore women's motivations of playing esports. In this section, I concentrate on how players' desire to obtain career development stimulate their participation in playing esports.

Previous studies have posited that computer technology is a barrier hindering women from entering the gaming industry. However, esports has developed into a brand-new industry which offers a considerable number of positions to which computer technology skills are not especially relevant. The fieldwork of this research involved three women who are working in the esports industry. One of them comes from focus group interview and the other two come from in-depth interview. The first response presented below shows a typical case of how her job stimulates her to play esports.

> *'I play* Honor of Kings *because I am a team leader of the* Honor of Kings *City Race ... I need to know this game.'* (women interviewee in Focus Group 4, team leader of an esports team located in Chengdu, China, 2018).

I further asked this interviewee did she played any esports games before she got the job. The response is:

> *'I played* LoL *before ... but I am not a big fan of the game. I start to play esports a lot after I started to work in this field.'*

The core responsibility of the team leader of City Races is to arrange trips for the professional players and engage with the organisers of offline leagues (in-depth interview, Li, 28th December 2017). This quote highlights the women participant's work becomes one of the core elements that stimulates her to play esports games.

Apart from this participant, the second example came up in the in-depth interview presents a similar response. Jin is an esports commentator whose core responsibility is to comment on the offline leagues with other commentators. When there are no offline leagues, they usually do online mainstreaming of esports games. Her interest in esports games was mainly established after she joined the esports industry.

> 'I used to play LoL, but obviously I was not a hardcore player at that time. After I joined Imba TV as an LoL commentator, I played a lot, partly because I needed to have a deep understanding of this games, and partly because I like it much more now' (in-depth interview, Zhou, esports commentator, 29th December 2017).

The *Imba TV* site mentioned by Jin is the first and most famous content sharing platform centred on esports-related videos in China. Her interest in esports is clearly related to her work life. Even though she emphasized her increasing personal interests in esports, her statement still stressed that her job requires her to play esports games.   At the same time, the third women is a former professional player of *Counter-Strike: Global Offesive* (*CS:GO*) (Valve, 2012). Slightly different from the other two women, this interviewee reported that playing *CS* derives from her personal interest, however, her participation in esports has increased due to her motivation to 'become an excellent player' (in-depth interview, Zhu, 4th January 2018). As a professional player, becoming 'excellent' represents the interviewee's desire to obtain achievements in her professional esports career.

Those three responses illustrate working in the esports industry is an element associating with their participation in esports play. Particularly, the first and second interviewee reported they start to play esports to a certain degree after they obtain a job in the industry. Those reports recall Styhre et al.'s (2018) argument that women's participation in the video game industry is influenced by the male-dominated gamer

culture. In detail, their study points out women's skills and competencies can obtain recognition until 'they are able to pass the test of being part of a traditionally male gamer culture' (p.253). Meanwhile, showing 'strong professional ideology of 'loving the game'' is one of the steps to enter the boundary the gaming culture (p.253). Relating with this research, women interviewees improved their engagement with esports play. This is not only because of their personal interests in esports play but also due to their desire of obtaining career development in this field.

The motivation of obtaining career development is not mentioned in Yee's (2006) three main categories of players' motivation theory. In fact, this motivation has rarely been reported by previous game research. One possible explanation is that previous game industry has not provided such a range of positions for women. The women interviewees' responses presented above clearly show that computer technology is no longer a dominant limitation stopping women from taking part in the esports industry. The situation in the esports industry is unique because one of its basic components is offline leagues. Women have gone into the esports industry as commentators, team leaders and so forth. Moreover, the professional members of the industry interviewed in this research held positive attitudes about the number of women taking part in this industry. As mentioned by Fang, a men staff from the department of mega-data analysis at NetEaseGames, *'There will be more places for women to step into this industry. Although women rarely became professional players, the total number of women players will keep increasing'* (in-depth interview, 17th March 2018). Additionally, Da, a men event operation manager for *LoL*, suggests the same thing: '*The number of women in the esports industry will increase since the industry chain is getting diverse. It is far more than designing and publishing games*' (in-depth interview, 15th January 2018). As the esports industry expands, opportunities for women to step into the industry are becoming more plentiful and diverse. To obtain career development appears to be an important motivation for understanding some women who play esports. Nonetheless, women's emergence in esports industry is a complex phenomenon intertwined with gender stereotypes to a large extent. Further detailed discussion of this phenomenon is presented in Chapter 7.

Conclusion

The discussions presented in this chapter have aimed at answering Research Question #2. In summary, this chapter has explored women's motivations for playing esports with evidence collected from the fieldwork. In this research, men are presented as having a balanced interest in social interaction, immersion and achievement. Meanwhile, women are presented as being stimulated by social interaction considerably more than men are. What is worth mentioning again is that players' motivations for participating in esports is complicated. As Taylor (2003) emphasises, video game players enjoy multiple pleasures. In sum, this chapter discussed motivation of social, achievement, immersion and obtaining career development. Those four motivations were revealed to be influential to women's participation in esports playing.

In line with studies on the broader context of video games, this chapter has highlighted social interaction, achievement and immersion as three key elements that stimulate players' participation in esports (Yee, 2006). Additionally, this research has detected the desire of obtaining career development is becoming one of the motivations that inspire women to play esports. Meanwhile, this study has detected gender differences in players' motivations and preferences for playing esports. Even though both men and women are stimulated by the motivation of social interaction similarly, it is worth noting that women appear to be influenced by the social intercourse aspect of esports to a larger extent than men. This result echoes the idea that social interaction and communication is one of the core elements, which has been discussed in the chapter of literature review. Moreover, the motivation of achievement has been proved to be an attractive element for women. This result appears to be vital to understanding women esports player because achievement in playing video games has been suggested to be highly associated with players' in-game skill mastery (Yee, 2006). Meanwhile, it has been suggested that women averagely underperform men in the capability of control in-game skill mastery (Quaiser-Pohl et al., 2006). Thus, the finding of achievement is an influential motivation to women esports player should be noted. This chapter further explored the possible explanation that women are more interested in overall ranking than game mechanics, especially as the current esports industry is making efforts to combine players' information with their social networks. This explanation reveals the

relationship between social intercourse and the motivation of achievement. It highlights the idea that players' motivations for playing esports are multiple and those motivations may have intertwined relationships.

This chapter further highlighted that obtaining immersion in playing esports is another core motivation for women. Unlike MMORPGs, which promote players' immersive experiences by enabling them to explore an abundant digitally mediated environment (Weibel & Wissmath, 2011), immersion in esports games is mainly associated with high levels of competitiveness and social interaction with real people. In contrast with earlier findings that immersion is strongly associated with the balance between game difficulty level and players' skill mastery (Qin et al., 2010), this study detected that women's in-game skill mastery has a limited influence on their immersive experiences. Moreover, what has rarely been mentioned in previous game studies is that women reported feelings of guilt associated with experiencing immersion in esports, while men were less likely to report guilt. Such feelings may negatively influence women's long-term participation in esports. Additionally, this chapter discussed how the desire to obtain career development stimulate women to play esports. This motivation has rarely been mentioned in previous video game studies due to the limited number of women staffs. However, the rapid development of esports industry, especially the area of professional esports, is attracting an increasing number of women to work in the esports industry. Under this background, this research explored the motivation of obtaining career development should be taken into consideration in the process of understanding women who play esports.

Chapter 6

The participation of women in the context of mobile esports

Introduction

The previous chapters made efforts to explain women's participation in esports by exploring both their motivations for playing and the difficulties that they reported. A common phenomenon is that men and women in video game play are understood as occupying opposite sides of the digital divide, especially in terms of players' preferences of digital games. For instance, women are identified as players who prefer games with less competitiveness and violence. Such an attitude is incompatible with the core feature of eSport, which has been identified as high level of competitiveness (Kafai, 1996; Salter & Blodgett, 2012). This situation started to change with the emergence of mobile esports. As mentioned in the literature review, data from industry reports indicates that women are becoming a notable demographic among mobile esports players. For instance, women made up 54% of all players of *HoK* in 2017 (JiGuang Data). This indicates the possibility that women may have similar game preferences to men.

However, even though current data on the increasing number of women in mobile esports reveals a narrowing gender gap, recent game studies still emphasise the gender difference in digital game preferences is the main reason drives to the gender gap in playing video games (Greenberg et al., 2010; Griffiths & Lewis, 2011). Obviously, those research outcomes cannot provide a comprehensive explanation for the increasing number of women in mobile esports. The discussions presented in previous chapters show that both academic research and the industry might have been misrepresenting women in gaming for some time. Under this situation, the popularity of mobile games along with the increasing number of women gives both researchers and the industry cause to re-exam preconceived notions of women who play esports games. Additionally, there is no data from industry reports showing the increasing number of women players

in computer esports games. This is to say women's participation in esports appears to be particularly stimulated by mobile esports. Thus, focusing on mobile esports is necessary for this study.

An exploration of these questions may help to arrive at answers to both Research Questions #1 and #2. On one hand, this chapter explores how esports manages to attract women considering their difficulties in participating, which have been discussed in Chapter 4. On the other hand, this chapter looks at how mobile esports have changed players' participation in esports and made it different from other video game genres. This research further concentrate on discussions of women's overall requirements of digital games are similar to men's. Women are not opposed to combat and their acceptance level of competitiveness is higher than gender stereotypes suggest. Even though they are observed to play casual games, it is still possible for them to prefer competitive esports games. Additionally, this chapter discusses that mobile esports is becoming a social platform in an offline context for the younger generation in China, and this function has become another important motivation for women to take part in esports. Since the focus group interview in this research mainly involved Chinese esports players, it is necessary to point out the national context may be reflected in findings. For instance, Liu and Li (2011) point out Chinese users have strong 'preference for hedonic mobile services, such as games, music and video' (p.890). This kind of preference makes the mobile esports more likely to be preferred by the young generation in China.

Before presenting detailed findings, it is necessary to mention that the 'mobile games' mentioned in this chapter are games played on smartphones or tablets with internet connections. Meanwhile, this thesis argues that mobile esports cannot be understood as a kind of casual games. Among current studies, there is still controversy over whether mobile games are inferior to PC games (Consalvo, 2012). To discuss how mobile esports different from casual mobile games can help us to present more objective understandings of women esports player. In order to provide a clear picture of women within the context of esports, this chapter first presents a discussion of how mobile esports differs from casual games. Second, this chapter explores how mobile esports has alleviated some of the difficulties women have met when participating in esports.

Third, this chapter explores whether their initial participation then expands to the PC terminal. Fourth, this chapter concentrates on the social function of mobile esports and the question of how the social function may or may not satisfy women's requirements. Finally, this chapter discusses how the rapid development of mobile esports and the increasing number of women is challenging the esports culture, especially gender stereotypes.

Mobile esports is different from casual games

Games that are played on mobile devices such as smartphones and tablets have previously been classified as 'casual games' (Koivisto, 2006; Furini, 2007). Such an understanding contributes to the idea that mobile esports games are casual games and their players are casual gamers. This understanding may alienate women from core esports culture since it reinforces the gender stereotypes mentioned by previous game studies. At the same time, the increasing number of women esports player accessing games through mobile devices can be seen as confirming the notion that women like casual games. This preconception relegates women to the realm of the casual gamer. Thus, it is necessary to begin this chapter by discussing the question of whether mobile esports belongs to the category of casual games. The core idea is that mobile esports cannot be defined as casual games. This is primarily due to the basic inconsistency in the definition of mobile esports and casual games. Moreover, the increasingly complex role of mobile esports further differentiates mobile esports from casual mobile games.

Above all, mobile esports and its players are incompatible with the basic definitions of casual games and casual gamers. A widely acknowledged work on casual games is provided by Juul (2010), who highlights five characteristics to identify casual games: 1) fiction, which refers to what the game is about (casual games normally avoid themes like war and armed conflict); 2) usability, which refers to an easy learning curve; 3) interruptibility, which means the game allows players to pause or quit anytime they want; 4) difficulty and punishment, which means the game cannot be too difficult and punishments should not 'force the players to replay large parts of the game' (p.50); 5) juiciness, which entails 'excessive positive feedback for every successful action' (p.50).

According to Juul's definition of casual games, mobile esports appears to be non-casual in at least three considerations. First, esports games normally involve competitive fiction, which do not match the fantasy fiction described by Juul. For instance, *PUBG Mobile*, a first-person shooter game, forces players to shoot each other in the game, presenting an environment similar to the real world. Those elements are mentioned by Juul as non-casual fiction. Second, it is true that the learning curve for mobile esports is much smoother than it is for PC esports, but the ease of learning mobile esports does not match the *usability* of casual games. It is by no means arguable that *HoK* is easy to learn. Players may spend three to five minutes learning how to play *Candy Crush Sage* (King, 2012) since the aim of this game is just to find at least three connected squares with the same pattern. On the contrary, learning *HoK*, a typical mobile esports game, requires players to understand a series of game mechanics and become familiar with more than 70 characters. Third, the playing process in casual games is interruptible, but not in mobile esports. When playing casual games, players can pause or even quit in the middle of a game without influencing the gameplay. When playing mobile esports, a player quitting a game may lead to the failure of that game due to lack of teamwork, particularly in MOBA games. Players of mobile esports are expected to finish a game continuously. Thus, mobile esports cannot be defined as a type of casual game. Even though mobile esports have improved the *usability* of games because the control settings in mobile esports are comparatively easier than in PC esports (Wei & Lu, 2014), it is far from accurate to define mobile esports games as casual.

Additionally, playing casual games is not the core measure of casual players. As Juul (2010) concludes, the stereotypical casual player is willing to play pleasant fiction, prefers easy games, has little experience of playing video games and is less willing to devote time and resources to the game. What is highlighted by this conclusion is that the way players play the game is the core measure to define them as casual players. Therefore, it is inappropriate to define mobile esports players as casual players simply because they play esports through mobile devices. This discussion of whether mobile esports is casual aims at emphasising the inappropriateness of recognising women playing mobile esports as casual players. Abandoning the stereotype that mobile game players are casual players is the initial step to comprehensively understanding women who play esports games.

Moreover, viewing hardcore players and casual players as two opposites is a theoretically inappropriate way of understanding players. Players themselves are hard to categorise as simple 'types' of player; they appear to be different kind of players depending on various indicators and contexts. As Juul points out, 'players that at one time were a stereotypical hard-core player may find him or herself in a new life situation' and become casual gamers (2010, p.51). In addition, the development of technology and improved game design is contributing to a diverse integration of video games and mobile devices. Since traditional hardcore games such as esports have been transferred to mobile devices, the boundary between hardcore and casual games is vaguer because the esports game genre does not match the image of casual games. Therefore, viewing mobile esports and its players as casual games and casual players is theoretically inappropriate. This problematical idea may lead to the misconception that the increasing number of women in mobile esports is attributable to the migration of the genre towards casual gaming rather than PC esports. 10 years ago, it is undeniable that the success of casual games initially suggested that the mobile platform is ideal platform for casual play (Furini, 2007). The successful combination of casual games and mobile devices has largely contributed to the cognition of mobile games are casual. While game genres on the mobile platform are becoming diverse (Koivisto, 2006; Furini, 2007), there is still a lack of clear exploration of non-casual games on mobile devices. Consequently, studies that focus on women playing mobile games are more likely to establish relationships between women and casual mobile game play (Hjorth & Richardson, 2009).

While this chapter initially highlights the differences between casual games and mobile esports games, the reason that woman and girls prefer mobile esports to PC esports should not be attributed to the idea of mobile esports are somehow casual. At the same time, understanding women esports player using smartphones or tablets as casual players is unfounded and could possibly alienate women from both esports games and esports culture.

Mobile esports and ease of women's participation

In Chapters 4 and 5, technology engagement, in-game skill mastery, gender stereotypes and limited previous experience of digital games were identified as core difficulties women meet participating in esports. At the same time, the emergence and popularity of mobile esports has managed to attract a considerable number of women. To understand why mobile esports appear to be more attractive for women, it is necessary to evaluate whether and how mobile esports reduces the influences of difficulties listed above.

Simplicity, portability and accessibility (Jeong & Kim, 2009) are detected as main features of mobile esports, and these characteristics have reduced the difficulty level for women to take part in esports games. The following part of this section explores how and to what extent the simplicity, accessibility and portability of mobile esports enable woman and girls to enjoy esports. Additionally, this section makes an effort to build a new understanding of women based on their participation in mobile esports, which has shown them to have an interest in competitiveness and combat in digital games.

Simplicity of mobile esports

Jeong and Kim (2009) highlight that one of the features of mobile games is their simplicity. Mobile games provide players with an easy learning curve (Wei & Lu, 2014, p.315) and they demand a comparatively low level of in-game skill. The simplicity mainly results from the technical limitations of the mobile interface. PC terminals are generally equipped with peripheral devices such as a mouse or a keyboard. These devices enable digital games on the PC terminal to contain a larger amount of information and increase the complexity of game manipulation. Moreover, elements like monitor size, audio quality and so forth differentiate the complexity of PC games from that of mobile games. In the realm of esports, the simplicity of the mobile interface becomes an advantage for mobile esports to be attractive. As Jiang mentioned:

> *'Games on different platforms have their features. The way to maximise benefits is to take advantage of a new platform to attract more users, rather*

than moving existing users to a new platform.' (in-depth interview, 22nd December 2017)

Jiang's argument partly reveals an appropriate way to understand mobile esports players. In the context of this research, the simplicity of mobile esports was detected to be the primary reason for women to be attracted to a game. The data from the questionnaire revealed an obvious gender gap when it comes to preferred esports platforms. As was presented in Chapter 4, 66.1% of women esports player only reported mobile esports games as frequently played esports games, while 81.4% of the men reported experiences of playing esports games through computers. Obviously, the women participated in this research prefer mobile esports to PC esports. Moreover, considering the discussion about the hard learning curve of esports and the finding that women players tend to have a lower level of in-game skill mastery, women' preferences for mobile esports could be partly explained by the simplicity of mobile esports.

According to further analysis of the focus group interviews, simplicity appears to be one of the main elements influencing such gendered preferences. When asked what esports games they usually play, the women focus group members tended to give similar answers. The majority of the women focus group interviewees reported that they prefer to play mobile esports such as *HoK* and *PUBG Mobile*. The next question asked was, 'Why don't you play esports games on the PC terminal?' (presented in Question Guild for focus group interviews in Appendix 3). A range of reasons were given, and difficulty to play was mentioned with high frequency. This difficulty was reported to include not only the laborious learning process of PC esports, but also the inconvenience of accessing esports on the PC terminal. The conversation presented below is a typical and direct explanation of this difficulty:

> *'I know* Dota 2*, but never thought about playing it. I know it is very difficult. ... The phone is convenient, and I can lie on the sofa and play. If I were playing on the PC, I would need to spend a few minutes to start everything [computer, game system and other devices]'* (Women interviewee in Focus Group 1, officer, 2018).

On the other hand, the men interviewees reported that they play mobile esports mainly because they want to play with their friends and mobile esports is easy to access. The motivation of playing with friends will be explained in the later part of this chapter. What is interesting is that men reported very little regarding the easy learning curve and the lower skill requirements of mobile esports. Instead, they reported that they continued playing PC esports largely because they feel that PC esports is more 'complicated to play and makes me feel different ... awesome' (anonymous men interviewee in Focus Group 5, 2018).

Such responses seem commensurate with the idea that difficulties of learning and controlling esports games are gendered. Indeed, PC esports involve a laborious learning process to ensure that players have sufficient skill mastery to enjoy playing esports. This characteristic of PC esports turns out to be a reason behind women' choices to play mobile esports instead. Since mobile esports provide an easy entrance and an easy learning curve, it is not surprising that the majority of women esports player choose to play through smartphones or tablets rather than PCs. The feature of simplicity becomes the primary factor that allows women to build their relationships with esports.

Accessibility, portability and flexibility

As well as simplicity, accessibility and portability have been identified as another two features of mobile esports (Jeong & Kim, 2009). In the fieldwork, esports players reported these two features as elements that attract them to play. Accessibility refers to the high penetration of smartphones and tablets, which means players have game devices with them nearly all the time and at any place. Portability indicates the sense of time flexibility, which means players are able to play games in their spare time, relatively regardless of context. This research detected that accessibility and portability have influences on both men and women who play esports. Moreover, the comparatively short length of a single game in mobile esports appears to be another reason that women may be attracted.

First of all, as was discussed in the literature review, there is a considerable number of smartphone users. According to Statista (2019), the number of smartphone users has reached 3.5 billion, which indicates that the smartphone has become an extremely popular and widespread device. Current popular mobile esports games have been published on tablets as well, expanding their accessibility further. In other words, it is more likely for women to have a smartphone than a console or a computer with an esports programme. As discussed in Chapter 4, technology engagement is one of the difficulties deterring women from playing esports. Owning an accessible game device is a typical issue affecting technology engagement. When esports migrated to mobile devices, the negative influences of technology engagement on women were reduced, enabling more women to participate than had been the case with PC games. In addition, developments in mobile network technologies have made it possible for players to connect with each other through mobile devices any place with network connection. Since esports involves competition with other players, connection with other players though the internet is foundational. Consequently, these two features enable players to play mobile esports 'at any time and at anyplace' (Jeong & Kim, 2009, p.186). In this research, both the men and women mentioned easy access to games and time flexibility as positive elements of their participation in mobile esports. Obvious gender differences were not detected regarding feelings about accessibility and portability.

Another factor is that the game design of mobile esports is slightly different from that of PC esports. The most obvious difference is the length of a single game. Koivisto points out that the portability of mobile games enables players to play 'many short play sessions instead of a few long ones' (2006, p.1). Like the interruptibility of casual games, which enables players to pause or quit whenever they want, the short duration of one game makes mobile esports an activity that is suitable for fragmented play.

The comparatively short length of a single game was mentioned with high frequency throughout all six focus group interviews. Both the men and women reported that the short length of a single game in mobile esports is attractive. This result goes against the idea that time flexibility has relatively limited relation with players' motivations for playing mobile games (Wei & Lu, 2014). Instead, the responses that emerged in the fieldwork stressed the importance of time flexibility. What is interesting is that the men reported that such a short length of play attracts them because it meets their requirement

of playing in fragmented time. Throughout the focus group interviews, the length of a single game was cited most often when the participants were asked, 'Why don't you play esports on the PC terminal?' One man responded:

> *'It doesn't take too much time to play a game of* HoK*, it's flexible… … (If I) don't have lots of time to play* Dota 2, *then* HoK *is a good choice'* (Men interviewee in Focus Group 3, graphic designer, 2018).

For this interviewee, mobile esports is an alternative method of participating in esports when time doesn't allow PC gaming. At the same time, women reported that time length is an important element for them because this playing style is more comfortable and relaxing for them. As two women interviewees reported:

> *'PC esports is too complicated. A single game of* LoL *[PC esports] lasts dozens of minutes, while I can enjoy two to three rounds of* Honor of Kings *[mobile esports]'* (women interviewee in Focus Group 4, student, 2018).
> *'It is tiring to spend one hour playing one round of a game on PC. I heard that one single game of* Dota 2 *may last 50 or 60 minutes, or even more. I don't think I would enjoy it'* (women interviewee in Focus Group 4, nurse, 2018).

According to those typical responses, the time flexibility of mobile esports appears to be the core attractive element for women. The women respondents did not mention playing mobile esports as an alternative way of playing PC esports, as the men respondent quoted above did. In addition, considering that the questionnaire suggests there is a large number of women (66.1%) who majorly play mobile esports, the influence of game duration appears to have a greater impact on women. Therefore, it can be inferred that the comparatively short length of a single game of mobile esports is attractive to both men and women, but the motivation of preferring short games is gendered. This is mainly due to the finding that Chinese women have limited previous digital gaming experience, as was discussed in Chapter 4. This suggests that Chinese women may have less interest in playing games with long play sessions. As Li, one of the famous former professional players of *Dota 2* in China, argues in the in-depth interview:

'The lack of the console game era largely makes [Chinese] players less used to spending a long time learning how to play a game… let alone [Chinese] women players' (28th December 2017).

Li's argument reveals the potential limitation of the attractiveness of the time flexibility of mobile esports. Indeed, Chinese women have limited previous experience of video games, which may influence their habits of playing esports. However, in consideration of the long history of women being marginalised from the area of video games, it is highly possibly that women's preferences for mobile esports could be attributed to their limited previous experience of video games. That accessibility and time flexibility have made mobile esports an attractive game genre for players has been noted by current game research (Koivisto, 2006; Jeong & Kim, 2019). The problem is that these studies isolate mobile game from PC games and rarely explore the differences between the different platforms. Thus, it is worth noting that this thesis has revealed that a short time length is attractive for players, even though men and women have different reasons for preferring a short duration.

In summary, the characteristics of mobile games have allowed women to come to the gaming field thanks to easy and universal device access, which was not previously possible. Women are no longer marginal figures in the mobile gaming filed, but players who contribute primarily to market revenue. The effects of the mobile devices are remarkable games since it has managed to address the issues deterring women from participating. However, while mobile esports is clearly managing to attract women, it is inevitable to ask whether the predicament of women participating in esports has entirely changed. There are two points worth highlighting in order to understand the role of mobile esports in the gender gap in the esports area.

First, the fact that women's participation concentrates on mobile esports but not PC esports indicates that the difficulties presented in Chapter 4 are still influential for woman and girls. This is an important point, but it is very easy to overlook since little research has compared players' participation in specific esports genres across different platforms (Ok, 2011; Jin et al., 2015). The problem is that since women have managed to establish relationships with esports, only a minority of them have reported having

experience of PC esports. A possible explanation is that online games, particularly games on the PC terminal, make women feel 'social restraints or societal pressure in navigating these worlds' (Ok, 2011, p.334). The pressures generated by stereotypes of video gaming as a male-dominated field may deter women from participating in PC esports. Apart from those cultural reasons, a more reasonable explanation is that the difficulties presented in Chapter 4 still negatively influence women to play PC esports. Specifically, technology engagement and players' in-game skill mastery remain to be key elements preventing women from playing PC esports.

Second, the success of mobile esports in attracting women suggests the possibility that women are able to accept combat in gameplay, or even enjoy competitiveness. Based on the evidence and analysis presented above, this thesis argues that the gender gap in digital game genre preferences is not as apparent as previous stereotypes have described. For decades, competitiveness has been argued to be an element of gaming that women avoid (Yee, 2006; Hayes, 2005; Kafai, 1996). This perception has informed industry practices. The most typical evidence is the remarkable development of so-called feminine games, such as *Love and Producer* (Suzhou Diezhi Network Techonology, 2017), which attracted more than 7 million users within one month, 90% of whom were women (JiGuang, 2018). Providing games with social and casual features, and even feminine characteristics, has indeed succeeded in attracting women. However, highlighting women's preferences for casual games and ignoring their interest in competitiveness may reinforce gender stereotypes in video games. Moreover, it may leads to misunderstandings of women in esports play. Mobile esports has broken barriers associated with women's participation in competitive games and offered the opportunity for us to re-examine women who play esports. Therefore, a more appropriate way to understand women in a broader video game context is that they have multiple requirements when playing video games. Women may prefer to play casual and social games, but this does not prevent them from enjoying competitive games as well. Once certain difficulties have been addressed and gaming culture has started to become friendlier to women, their interest in wider game genres will become more apparent.

Social intercourse frames women's participation in mobile esports

Following the above discussion of how mobile devices, such as smartphones or tablets, have addressed some of the difficulties that women meet in esports, this section focuses on how esports meets players' motivation for social participation. Social intercourse has been clearly detected to be an essential motivation for both men and women to take part in video games (Jansz & Martens, 2005; Gajadhar et al., 2008) and even linked to video game addiction (Blinka & Mikuška, 2014; Game, 2008). However, one of the problems is that the majority of these studies pay attention to game genres such as MMORPGs and RPGs, which provide players with more complicated and longer-term interactive relationships than mobile esports games. For instance, creating guilds (a type of long-term team that will be discussed later in this chapter) provides the opportunity for players to meet and play together in the long term (Martončik & Lokša, 2016) and to build social relationships in the medium term. Such a feature is hard to detect in MOBA gameplay because the turn-based combat play style increases the possibility of encountering random players. Thus, transferring our understanding of the social intercourse in other digital games to esports could not make too much of a contribution to illustrating how social intercourse works to attract players, especially women. This research reveals a new and vital correlation between players' participation and their existing social networks in the area of esports.

This section initially attempts to illustrate how social intercourse can be framed by esports play style and how the esports industry promotes social intercourse. Next, this study collects women esports player' experiences of social intercourse, which provides original data from the perspective of the players themselves. Finally, this section concentrates on how social intercourse in mobile esports appears go beyond the traditional definition of social intercourse in online games.

Social function of esports

In common game genres with a social function such as Massively Multiplayer Online Games (MMOGs) and MMORPGs, chatting (Jakobsson & Taylor, 2003; Ducheneaut

et al., 2006) and team tasks (Ducheneaut, 2007; Cole, 2007) are suggested to be critical elements of social interaction. Within these games, the intertwined relationship between the game narrative and team tasks makes in-game social relationships long-term. For instance, the marriage system in MMORPGs, such as *Fantasy Westward Journey* (NetEase Inc, 2001), helps establish more durable relationships between players who were previously strangers. When considering these features of esports, as Li, the former professional esports player, mentioned, chatting and team tasks are the basic features:

> *'Basically, [voice] chat happens frequently in Player versus Player play. Co-operating with teammates without communication is tough, for instance, when team battles happen or your team is going to use Smoke[8]' (Li, In-depth interviewee, 2018).*

Li's quote highlights communication with others and cooperation happens between teammates are essential elements of MOBA games. Chatting and teamwork initially framed the social interaction pattern in esports. However, it is necessary to point out that these forms of interaction are short-term due to the basic play style of MOBA games is turn-based competition. Thus, it is highly possible for players to chat and form teams with different, random players in different rounds of play. Moreover, when asked if they usually interact with their teammates when playing, the respondents in all six focus groups responded positively with high frequency. Such results were anticipated since esports involves high levels of teamwork.

What is interesting, though, is that the chatting in esports play appears to come with gendered differences and can exert slight social pressure on women. After the interviewees had reported that they often interact with teammates through chat, I asked whether they enjoy talking with teammates. I found that while men reported neutral attitudes, the women respondents generally reported that they '*prefer not to talk unless necessary*' (women interviewee in Focus Group 2, student, 2018). This recalls the situation of women experience more gender-based harassments and discriminations in playing. Chatting in esports play is normally done by voice, which makes it easy to

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[8] Smoke is short for Smoke of Deceit, which is an in-game item in *Dota 2*. It enables player and nearby ally heroes to become invisible for a certain period of time.

identify the gender of the player. One of the consequences is that it becomes easier for gender to be connected with the players' performance. As one woman who often plays with strangers describes:

> *'I generally don't speak first until I need to. But if I play poorly throughout the game, I prefer to keep quiet. Otherwise, other [men] players will make comments attributing my performance to my gender. This really influences my gaming experiences [negatively]'* (women interviewee in Focus Group 1, student, 2018).

Even though the chatting function contributes to the social intercourse players experience playing esports games, it is still worth noting that such kind of communication may bring social pressure to players, especially women.

Beside chatting and team tasks, the narrative, or 'game-story' (Zimmerman, 2004) is relatively weakly connected with players in common MOBA games, unlike in MMORPGs. This is mainly because the playing style of MOBA games is turn-based gameplay. The main style of MOBA games is to divide players into two opposite groups that fight each other. With every round, play starts from a new beginning. On the contrary, MMORPGs are designed to let players control a character over a comparatively long-term game play session and to finish tasks either by themselves or with their in-game friends. The game narrative in MOBA games is more likely to be a background story which enriches the interestingness of game play rather than providing players with a long-term task. For instance, the long-term play style of MMORPGs enables players to finish couple-tasks or guild-tasks by following the main storyline of the game throughout a certain period. However, players of MOBA games usually meet new players in each round game and the major concern when playing these games is the battle between two opposing groups. As a result, it is not an advantage for players to establish long-term relationships with others like they do in MMORPGs. Indeed, the narrative 'is one of many ways to frame a game experience' (Zimmerman, 2004) and contributes to framing long-term social intercourse in several game genres, such as MMORPGs. Therefore, how social relations have been framed in esports appears to be different from the ways previous game studies have examined the phenomenon.

There are two features of esports play style that can provide explanations of how social interactions are formed in esports. On one hand, the ranking system plays a part in social intercourse in esports. The ranking system means that every player has a total score and this score is the most important indicator of their level of skill. With every victory and defeat, players' scores rise or fall. Such a ranking system establishes a competitive connection between players. This connection provides players with social intercourses similar to the social intercourses of the pinball arcade (Ducheneaut et al., 2006). The pinball arcade has been described as a social 'hangout' (Dodson & Nielsen, 1996) and one of the norms of participating in this social place is showing respect to skilled players through spectatorship in arcades. When games migrated to the online environment, as in the form of MMORPGs, the social intercourse became similarly manifested through 'being socialised into a community of gamers and acquiring a reputation within it' (Ducheneaut et al., 2006, p.1). In playing MOBA games, obtaining reputation within the community and watching other skilled players is one of the main methods of social interaction. At the same time, the ranking system becomes the key element in establishing competitive connections among players and enables social interaction in playing esports. Moreover, according to Chapter 5 of this thesis, the woman in the focus group interviews showed more interests in the overall ranking score specifically; thus, in this case it can be claimed that the ranking system plays an important role in satisfying social requirement in playing esports.

The Party play style is another notable element of social intercourses in esports. The Party is a play style in esports which means the team is manually composed of two to five selected players. Players are able to form a Party in order to play esports games with their friends instead of strangers in either ranked or unranked matchmaking. This is significant for experiencing social intercourse in esports since the Party provides an opportunity for players to establish comparatively long-term social relationships rather than short relationships through random matching. According to the focus group interviews, both men and women prefer to play in Party mode. One woman reported that Party is her '*core motivation for logging into* Honor of Kings' (women interviewee in Focus Group 2, nurse, 2018). Pieces of evidence show that this feature has been noticed and promoted by the esports industry. For instance, the scoring system of a ranked team match and ranked solo match in the *Dota* 2 is separate and losing scores in the former mode carries less weight than losing scores in the later mode for players.

As one of interviewees from the focus group interviews mentioned: 'Penalty scores in the Party mode is light. I just lost few scores for losing a game in Party mode, but I lost like 15 to 20 scores for losing a game in solo mode.' (Men interviewee in focus group 4, programmer, 2018). In other words, the Party mode encourages players to play with existing teammates with less pressure on their ranking score. What is significant is that this feature enables esports games to be a source of entertainment among friends, which further contributes to mobile esports not only being an online entertainment platform, but also a method of socialising in the offline world for the younger generation. A discussion of this point will be presented in the last section of this chapter.

Social intercourse in mobile esports

The discussion presented above aims at illustrating the social intercourse in esports, which generally exists in both PC and mobile esports. However, this discussion has shed limited light on how social intercourse in esports attracts women to participate. This problem can only be examined clearly when attention is paid to the feature of social intercourse in mobile esports. It was not until I looked into the social intercourse on smartphones or tablets that the social networking chain that was established by taking advantage of players' existing social networks emerged as a key attractive factor of mobile esports for players, particularly women. Exploring players' social networks on video games is not a new topic for game studies. One of the most typical formations of players' in-game social network is guilds[9] (Williams et al., 2006, 2007; Hsu & Lu, 2007). Studies focusing on guilds provide a vivid picture of how players' social networks are formed with other players. However, what is worth noting is that communities such as guilds are mainly formed among random players who rarely know each other in the offline world. Anonymity here seems to be an attractive feature of social intercourse in multiplayer online games (Martončik & Lokša, 2016). However, unlike anonymous social interactions, the data collected from the fieldwork of this research suggests that players' social networks in mobile esports are deeply rooted in their existing social networks in the offline world. In other words, this research detected

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[9] A guild is a kind of long-term team in MMORPGs and RPGs. Guilds enable players in the same guild to finish the task and play together.

that playing with friends from real life is one of the major social intercourses of playing mobile esports. The popularity of *HoK* provides typical case of taking advantages of players' existing social networks in mobile esports. The combination of players' existing social networks with esports is illustrated by Da, the event operations manager of the *KoG*:

> *'One of Tencent's core concepts of game development is Social Driven Games. Innovating social methods in games is an important goal for the game development department of Tencent… The most typical case is to provide login via* WeChat *and* QQ. *Players' friend lists automatically appear in games. You can see who is playing and you can invite friends who are not playing'* (in-depth interview, 15th January 2018).

WeChat and *QQ* are two of the most popular social apps in China. As of the first quarter of 2019, the month active user (MAU) of WeChat had reached 1.1 billion while the MAU of *QQ* exceeded 700 million. These two social apps have become deeply intertwined with Chinese people's daily lives. Once players choose to log in through either their *WeChat* account or their *QQ* account, their existing social network is automatically associated with mobile esports play. As first-time players open *HoK*, existing friends from the offline world are shown in their friends list on *HoK*. Therefore, rather than establishing new in-game relationships in order to obtain social interaction, *HoK* provides players with a quick and direct way to enjoy social interactions while playing esports. This approach of *HoK* is similar to the social function of Social Games, which represents 'games played on social network services such as Facebook' (Paavilainen et al., 2013, p.794). As Paavilainen et al. (2013) suggest, the social intercourse of online games is amplified when games are released on large social platforms. When online games are published on social platforms, players' existing social networks become social resources for playing online games.

HoK remains the first game to successfully combine players' existing social networks with esports on a considerable scale. Prior to *HoK*, *Dota 2* and *LoL* were two of the most popular esports in China. To try to enhance the social aspect of esports games, Valve published *Steam*, a digital distribution platform, to enable *Dota 2* players to play video games and establish their gaming networks and gaming communities. Even

though players can invite their friends from the physical world to join their in-game friend list, it remained a problem for players to find out which of their friends were playing the same esports games as them. Both *Dota 2* and *LoL* only allowed social networks to be set up in isolation from players' existing social networks, and it was not until 2018 that *LoL* changed its practice to allow players to log in through social app accounts. By 2018, *HoK* was three years old, and players had become familiar with logging into the game through their social app accounts.

Moving from the perspective of the industry to those of the players themselves, the responses of the focus group interviewees highlighted that playing with existing friends is one of the most important social intercourses in playing *HoK*. Forming a Party with existing friends appears to be attractive and exciting to players. In the focus group, the question, 'Do you prefer to play alone or with friends?' was posed in order to determine whether and to what extent esports satisfies players' social motivation. Surprisingly, the majority of the interviewees in all six focus groups reported that they preferred to play with friends. At the same time, further discussion indicated that when players talk about playing with 'friends', they usually mean people that they already know in the offline world. How existing social networks influence players in playing mobile esports is illustrated through some typical responses presented below.

> *'I usually form a Party with my roommates, classmates and friends. I always get invitations to Parties when I am online, so … there is no reason for me to refuse them'* (Men Interviewee in Focus Group 4, student, 2018).
> *'I feel the same. I usually go online because I have a plan [to form a Party] with my friends. Sometimes there are new friends to join us, but they are normally friends' friends'* (Women Interviewee in Focus Group 2, teacher, 2018).

As Nardi and Harris (2006) point out, there is a wide range of types of collaboration when playing multi-player online games, ranging from 'fleeting lightweight encounters to highly structured collaborations in guilds' (p.151). The responses presented above indicate that highly structured collaborations are popular in playing mobile esports. What is different from collaborations in other games is that when interviewees mentioned this type of interaction, they indicated that they would usually form a Party

with at least one of their existing friends, but not random members online. In other words, participants of this research shown that plying with friends from offline world is an important part of the Party in MOBA playing. Two possible explanations are presented here. On one hand, 'relax', 'interesting' and 'friendly' emerge as three keywords interviewees adopted to describe the feeling of playing esports with a Party. On the other hand, 'better cooperation' frequently appears in discussions of long-term parties, which provides players with better gaming experiences.

The discussions presented above have highlighted that Party mode is the dominant playing style for *HoK*. Additionally, evidence from the focus group interviews highlight that this mode is particularly attractive for women. The men interviewees said they are as interested in solo matches as they are in Party matches. As one of men interviewees said, 'Playing with a Party is interesting of course, but I still do solo ranking matches sometimes. The game itself is enjoyable for me' (Men interviewee in Focus Group 5, programmer, 2018). As was discussed in the former part of this chapter, improving personal scores in the ranking system is one method for players to obtain reputation within the esports community. Thus, the responses presented above are not surprising. A general idea that arose from the women interviewees is that they prefer to play esports in both solo mode and Party mode. However, playing in Party mode is the major method for both men and women to play *HoK*, while playing in solo mode and Party mode are both common in PC esports such as *LoL* and *Dota 2*. The following quote from a men interviewee is a typical example:

> *'I like Solo ranking matches too, especially when I am playing* Dota 2 *because I need to increase my score. But for* HoK*, I play it just to have fun with friends'* (Men interviewee in Focus Group 5, student, 2018).

This response met with agreement from other men interviewees in the focus group interview who play PC esports. men appear to have different preferences when playing in different modes in PC and mobile esports. Playing with friends becomes a more popular play style in mobile esports.

In contrast to the men interviewees, the women interviewees in the focus group interviews showed particular interest in the Party mode rather than the solo mode.

Moreover, data from the fieldwork shows that playing alone is unattractive and even off-putting for women taking part in PC esports. Initially, it was detectable in the mixed-gender focus group that the women became quiet when the topic turned towards solo ranking matches. When men interviewees talked about playing solo ranking matches in order to increase their personal scores and improve their skill mastery, the women remained quiet. The situation was different in the two women focus groups. Interviewees in the women focus groups reported that they sometimes play solo ranking matches. However, the conversation was much briefer than in the mixed-gender focus group and the men focus group. Considering that the majority of women interviewees in this research reported participating in esports via mobile devices only, women's absence from PC esports may be partly due to the way that mobile play lends itself more obviously to social networking. For instance, a woman who does not have previous gaming experiences said, '*There is no one forming a Party with me on a PC game*' (women interviewee in Focus Group 2, student, 2018). Even though she has not played any PC esports games, she is afraid of the lack of a social network in PC esports and this, she says, is one reason that she chooses to play on mobile devices only. This point was reinforced by another woman with a more extreme statement:

> '*I started to play* HoK *because I wanted to play with my friends. I only play when my friends have invited me to form a Party'* (Women interviewee in Focus Group 2, journalist, 2018).

This quote highlights the idea that the Party-playing model with friends is an attractive element for players to play esports. Meanwhile, by taking advantage of players' existing social networks, this model separates players' participation on different platforms. Participation in mobile esports emphasises the popularity of forming Parties, and women participated in this research appear to be motivated by it particularly. Moreover, women's preference for spending most of their playing time with existing friends is 'considerable, intensifying already close social relationships' (Nardi & Harris, 2006, p.156), which improves the social stickiness of mobile esports and can further motivate women's long-term participation. In summary, with the efforts of the internet giants, a strong social chain among mobile esports players has been built, which satisfies women's preference for social intercourse and stimulates players to continue participating.

As well, responses from interview participants indicate that the relationship between mobile esports and their existing social networks can be long-term, due to the link between social apps and mobile esports. In this regard I detected an interesting phenomenon, which is that once players choose a specific login method, they will continue to use it. As Ting describes:

> *'Changing game accounts always comes with a cost, not only regarding game props but also for the friends list attached with the account' (Ting, 2018).*

Thus, when *HoK* provides *WeChat* and *QQ* as two main methods for players to log into the game, players will continue to use it partly because their friends are linked with those accounts. As a result, for the vast majority of players, *HoK* is not a game of comparing skill mastery and improving personal scores, but a platform for entertainment and interaction with friends. This relates to the men interviewee's statement presented above, who regards *HoK* as a social platform to enjoy shared game experiences and interactions with friends. This highlights the new feature of *mobile esports as a social platform rather than a competitive gaming platform*. Furthermore, Ting argues that continually playing with existing friends has led to the result that the social network chain has become the driving force for players to continue playing. This is in keeping with Nardi and Harris's (2006) argument that playing with offline friends makes the game 'reinforce existing social ties for these players' (p.149). Indeed, esports appears to have a strong social function in the era of mobile games and its relationship with players is getting more complicated. What this chapter shows is that women are largely being attracted to mobile esports not only because of the simplicity and accessibility, but also the model of playing with friends. At the same time, this dimension, along with other preferences, keeps women from playing PC based esports.

esports culture in the era of mobile games

> *Almost overnight, people from bars to undergrounds, from campuses to office buildings and from parks to restaurants looked like they had been*

*poisoned since all of them were on their smartphones playing the same game [*HoK*] with the same gestures* (Ru, interviewee of in-depth interview, retrieved on 20th November, 2018).

As a member of the younger generation, Ru posted the paragraph above on his *WeChat* Moments to share his feelings on the rapid rise in popularity of mobile esports in China. With his agreement, I cite this statement to illustrate a vivid picture of mobile esports becoming one of the most popular digital game genres in China. Mobile esports, particularly *HoK*, has become the most typical category of digital games, both in terms of popularity in Chinese gaming culture and influence on the younger generation's daily life.

As mentioned above, one of the core roles mobile esports plays is as a social platform. It provides players a kind of leisurely method to interact with each other anytime and anywhere. Through analysing the data from the focus group interviews, this research has further detected that esports can serve as a social platform even in the offline environment. This is to say players choose to play mobile esports even in face-to-face situations. Such phenomena are providing a new dimension of the social function of esports.

The primary evidence was revealed from the question, 'Do you participate in any activities associated with esports?' One of the interviewees in the mixed-gender group stated that he watches esports online streaming before bed every night. This response attracted my attention because of the specific time and location he described, as well as the alternative method of participation (watching esports online streaming). Based on this, I further added the coding of 'time and location', which had not initially existed in the planned analysis, to the coding scheme for analysing the focus group interviews. Interestingly, both the locations and times that the participants mentioned playing mobile esports and watching online streaming varied. Locations include the underground, bus, at home and in restaurants. In terms of the times they play, one of the interviewees' responses represented how diverse this could be. A men interviewee said, '*I just play it whenever I felt bored. Of course, that's as long as my phone has power*' (Focus Group 5, student, 2018). Such responses echo Jin et al.'s (2015) arguments that the mobility and portability of mobile games are adaptable to the

commuting patterns that exist in metropolitan life. That means players can play esports in a wide range of time category. For instance, the commuter time which includes time spent on buses and trains.

Due to the devices' portability, it is not surprising players choose to play mobile esports at such a range of places and times. What is worth highlighting is that the interviewees reported playing mobile esports during face-to-face interactions with other players. To be specific, players choose to play mobile esports together even though they are in the same physical space. Through reviewing the context associated with the coding of 'time and location', this research detected an interesting response:

> *'I must definitely join the Party with my friends [to play* HoK*]. Is there anything more interesting than this when you are waiting for a table in a restaurant?'* (anonymous men interviewee in Focus Group 6, 2018)

This response first suggests that the social function of mobile esports not only exists in private space, as previous studies mention (Jin, 2015). Second, it indicates a picture of playing mobile esports that is different from playing alone on public transport. Even though players are getting together in the physical world, playing mobile esports is one way they choose to interact with each other. A more extreme response further emphasises this function:

> *'We usually go to one of my friends' homes to play [*HoK*]. We are not specifically planning to play it. We do this when we want to meet but don't have a good idea of where to go.'* (Men interviewee in Focus Group 5, student, 2018)

When I asked why they want to go to a friend's home when the game could be played online, this interviewee responded:

> *'You don't know where to go and it (*HoK*) offers you a thing to kill time with friends. Anyway, playing together [in the offline world] is more interesting and the atmosphere is better. We don't need to use the voice chat channel'* (anonymous men interviewee in Focus Group 5, 2018).

It is therefore not simply a matter of convenience for players to have social interactions with their friends through playing mobile esports. On the contrary, players have recognised mobile esports as a platform for socialising with their friends in the offline world. This feature appears to be similar to the role of board games and FC games. What needs to be pointed out is that the role of mobile esports in players' social networks is more complicated. Adopting mobile esports as a social platform in the offline world somewhat echoes Turkle's book *Alone Together* (2017), which emphasises that internet technology is playing a significant role in human's connections with each other. She argues that internet technology is encouraging individuals to change the way they connect with others, making virtual connections rather than genuine ones. In this process, mobile esports has become one of the dominant platforms replacing face-to-face communication and a platform for individuals to establish their networks with others through a virtual world.

However, the analysis of mobile esports presented in this chapter does not support Turkle's (2017) idea that the increasing prevalence of internet networking leads to isolation and loneliness in the offline world. As mentioned above, players purposely organise meetings to play esports socially. This indicates that mobile esports has somehow improved players' interactions in the physical world, or at least that it does not necessarily detract from them. Moreover, as Miller (2012) argues, technology is developing and is becoming so ubiquitous people have to be involved in connecting with others through the virtual world. 'But meanwhile… playing [online games] … allows people to experience intimate connections with other practitioners even if they never meet face to face' (p.225).

Mobile esports has successfully become such platform among the younger generation. The combination of digital games and smartphones 'has substantially influenced the nature of mobile games' (Jin, 2017, p. 4). The meaning of mobile games goes beyond a game genre itself. Mobile esports has become one of the platforms for players to establish their social networks through a virtual environment.

Mobile esports' game culture and gender stereotypes

Notably, the increasing number of women in mobile esports has impacted the idea of esports as a male-dominated area. The features of mobile esports, such as the portability and accessibility discussed above, are driving both men and women to participate. In addition, the increasing number of women esports player results from the exposure of esports culture caused by the increased popularity of mobile esports.

Firstly, the popularity of mobile esports has brought esports, a previously niche game genre, to the attention of a larger population of women. As discussed in Chapter 4, lack of previous game experience and weak engagement with technology have been shown to be two elements alienating women from computer games. One of the consequences is that women lacked opportunities and pathways to step into the esports area until the popularity of mobile games bloomed. The initial development of mobile games has already attracted women to participate in a wide range of game genres (Jin, 2017). Once women have widely established their relationship with mobile devices and mobile games, it becomes easier for them to come to mobile esports such as *HoK*.

Secondly, the popularity of mobile esports challenges the stereotype that esports is a masculine game genre that goes against women' game preferences. With the increasing number of women in mobile esports, the stereotype that esports is a gendered activity is becoming weaker and weaker. At least, this changing is happening in the mobile esports scene. As one of the men interviewees said, '*I often play with women; sometimes they are masters who lead me to victory*' (Men interviewee in Focus Group 4, student, 2018). Certainly, as discussed in Chapter 4, gender stereotypes remain obvious in esports culture. To understand the continuously existing gender stereotypes, it is inevitable to understand the gender gap in the esports industry. The next chapter will present detailed discussions on this issue. What I would like to mention here is that the increasing number of women in mobile esports offers a piece of evidence to challenge the conception of esports as a kind of masculine activity.

These cultural influences of mobile esports are significant to this thesis. As discussed in Chapter 4, Chinese digital game culture is unique due to China's historical development process and economic and cultural policies on digital games. Previously, digital games have officially been reported on as 'electric heroin' for the younger generation on official Chinese newspaper's website, *People* (Xia, 2000). Those official actions have resulted in digital games being defined as unhealthy and harmful products in China, a definition that has influenced Chinese people's cognition of video games for more than 10 years. Against such a background, esports in China has experienced a long and painful period of development. As Li suggests:

> *'esports was still enjoyed by a minority of men, especially professional esports when I started to play [around 1998] ... High rewards for professional esports brought the public's attention to esports a few years ago, but it is the popularity of* LoL *and* HoK *in China that have actually made esports widely known'* (Li, 2018).

The popularity of mobile esports has brought esports to the attention of a large part of the young population. This is particularly important for women because they have long been marginalised from the area of video games. Women have obtained the opportunity to establish relationships with esports. Moreover, the increasing number of women in mobile esports has impacted the masculine dominance of the competitive gaming field. According to the analysis presented above, society is becoming accepting of not only men but also women playing esports. Mobile esports plays a significant role in narrowing the gender gap in esports.

Conclusion

In summary, the development of mobile devices and wireless technology has promoted women's participation in online games (Jin, 2017). In terms of esports, the appearance of mobile esports has successfully attracted an increasing and considerable number of women to play esports games. The results presented in this chapter answered Research Question #2, which aims at exploring how esports attracts women and how their participation in esports is different from their participation in other video games.

The features of simplicity, accessibility and portability have been identified as core features attracting women to participate in esports. This result does not support the idea that women prefer social and casual games (Taylor, 2003; Hayes, 2005); it shows the possibility that women have an interest in competitive games. In considering the difficulties women meet in participating in esports, as presented in Chapter 4, the features of simplicity, accessibility and portability can be seen to have largely limited the negative influences exerted by those issues. However, considering that this research found that women's participation in esports is mainly concentrated on mobile esports and has failed to migrate to PC terminals, it is necessary to highlight that the difficulties detected in Chapter 4 still exist for women' participation in esports.

Esports' social function has been revealed in this chapter to be an attractive element for both men and women to participate in mobile esports. Players' in-game social relationships are highly intertwined with their existing social network in the offline world. Such an intertwined relationship reinforces players' social ties and their stickiness to the game (Nardi & Harris, 2006; Paavilainen et al., 2013). Social game studies, such as studies focusing on games played on Facebook, have pointed out the considerable attractiveness of applying players' existing social ties to the gameplay (Paavilainen et al., 2013). The social function of mobile esports contributes to attract women to a large extent. However, it is worth noting that the social function of mobile esports is attractive for men as well. Thus, emphasising social interaction and communication as a gendered motivation for playing video games is not comprehensive.

Moreover, the social function of mobile esports appears to be notable. It has been revealed that players adopt mobile esports as a social platform in the physical world. Turkle (2017) points out that the development of technology, such as the internet, is establishing networking through the virtual world rather than through face-to-face communication. This thesis argues that mobile esports is playing a significant role in this process. Mobile esports has become a social platform for the young generation rather than just an entertainment platform, which differentiates players' participation in mobile esports from their participation in other video games.

In terms of gender issues, the popularity of mobile esports has challenged gender stereotypes in esports. The impression that women are casual, less skilled and marginal players is changing. The most typical evidence is the increasing number of women in mobile esports, particularly that the number of women of *HoK* outnumber the men (JiGuang Data, 2017). What is necessary to mention is that the popularity of esports has challenged negative ideas about digital games, especially in China. Even though whether and to what extent digital games are harmful for the younger generation is still controversial, the public's attitude towards esports is becoming more accepting due to the popularity of mobile esports.

As a result, comparing with the gender issues discussed by previous research, the general atmosphere in esports is becoming friendlier to women from both the cultural and social perspectives. The increasing number of women in esports is suggesting both the researcher and the industry re-exam women' requirement of digital games. This thesis argues that they are able to enjoy competitiveness in games. Moreover, their preferences for digital games are diverse, going beyond 'pink' and casual games. In conclusion, mobile esports is providing a new picture of esports. With the influence of mobile esports, esports can no longer be considered an entertainment platform only. On the contrary, it is playing an important role in the broader social and cultural context.

Chapter 7
Women's participation in the esports industry

Introduction

Previously, research on the video game industry mainly paid attention to game design and marketing (Williams, 2002; Johnson et al., 2015; Harvey & Fisher, 2015). One of the core results shown by those studies is that the game industry is a fundamentally male-dominated industry in which women are considerably marginalised. At present, the development of the video game industry is providing increasingly diverse opportunities for women to join the industry, such as the development of video game online streaming. Moreover, in the realm of esports, professional esports play, esports online streaming and esports commentary emerge as the most obvious areas that can provide new opportunities for women to join the industry. At the same time, data from the esports industry suggests that women are playing more obvious roles in the industry. For instance, women esports streamers make up half of the annual top 10 video game streamers published by *DouYu* (five of 10 in both of 2017 and 2018). Clearly, women's participation in the esports industry is becoming more common and diverse. However, whether the increasing number of women in the esports industry should be understood as a signal of the narrowing down gender gap is open to debate. Studies indicate that there is serious discrimination and objectification of women in these new sections of the esports industry (Nakandala et al., 2017; Anderson, 2017; Ruvalcaba et al., 2018). Unfortunately, little research has paid attention to the gender gap and its influences in esports culture.

In fact, women's participation in the esports industry is significant for understanding their participation in esports play as a whole. Unlike other types of computer games, the exposure of the esports industry is increasing, particularly with professional esports play, esports online streaming and esports commentary. This is the way the gender issue may most obviously affect the role of gender in esports culture. Currently, there is limited literature shedding light on women's participation in the esports industry.

Reviewing the previous chapters, the role of gender in esports culture has been shown to have significant influences on women. Therefore, exploring the gender issue in the continuously evolving and increasingly visible esports industry can provide a comprehensive understanding of the relationship between women's participation in esports and esports culture.

This chapter pays attention to the following aspects of the esports industry: professional esports play and offline leagues, esports online streaming and esports commentary. Obviously, the composition of the esports industry is far more complicated than these three aspects. However, according to the fieldwork, these three aspects appear to be most compelling in the discussion of gender issues. Additionally, the data from the fieldwork could not provide a sufficient explanation of the gender issue in every part of the esports industry. Therefore, this chapter concentrates on the gender issue in those three specific sections. It is anticipated that this will allow this thesis to reach an authentic and comprehensive understanding of women and the role of gender in esports culture while related knowledge remains limited.

This chapter will first discuss the gender imbalance and gender gap in professional esports play. The gender imbalance and gender gap have been revealed to be highly associated with masculinity in esports culture. Next, this chapter presents findings on gender discrimination in esports online streaming. As mentioned in former chapters, there is an obvious hostile attitude to women in professional esports play. In Chapter 2, discussions of Team Siren, a professional women esports team, provided a vivid example of how hostile comments from the esports community can influence women professional players. In contrast with the obvious hostile attitude to women detected in professional esports play, gender differences in esports online streaming are expressed in a positive way. This means that in contrast to the obvious hostility directed toward women in professional esports play, gender discriminations in esports online streaming can be seen through audiences' positive attention to women streamers' appearances, singing ability, dancing ability and so forth. In other words, when audiences pay attention to those aspects of the content rather than their ability as esports player, it reflects gender discrimination in esports online streaming. As has been described by Ruvalcaba et al. (2018), positive comments that only focus on women streamers'

appearances represent a kind of sexual harassment towards them. Next, based on the discussion of esports online streaming, this chapter further discusses esports commentary. esports commentary has a deep relationship with esports online streaming, and serious gender discrimination has been detected in esports commentary. Last but not least, this chapter makes an effort to explain the gender gap detected in the esports industry and the popularity of women streamers. With these discussions, this chapter highlights the argument that there is masculine hegemony in the esports industry. Such hegemony limits women's participation in the core section of the esports industry and the core part of esports culture. Meanwhile, it may reinforce gender stereotypes and gender gaps in esports culture. Consequently, it builds cultural barriers hindering women from participating in esports play.

The gender issue in professional esports play

Developing professional esports play and the gender gap

The development of professional esports play has become one of the most obvious differences between esports and other video games. As was shown in Chapter 4, competitiveness has been detected as one of the core features of esports. That competitiveness provides the possibility of forming offline leagues and esports clubs. Up to the present day, professional esports play has developed in maturity and attracted worldwide attention. Being a professional esports player has become a career. At the same time, gender issues have become obvious in professional esports play.

The professionalisation of esports in Asia has been promoted by the foundation and success of the World Cyber Games (WCG), which was launched in 2000. The WCG is one of the earliest esports competitions to include diverse kinds of esports games. During the same period, women professional esports player emerged in China. One of the in-depth interview participants, Zhu, who was the leader of one of the first women's esports teams in China (in-depth interview, 4th January 2017):

> *'Our team [TSL, short for Team Shining Love] was founded in 2002 and*
> *our major game was* CS. *We were one of earliest women's esports teams*
> *with sponsors.'*

CS is an FPS game that held an important position in early esports play. Before the popularity of MOBA games, most esports games were FPS games. As Zhu's experience shows, women emerged as professional players in China even during the early period of esports' professionalisation. Even though their initial appearance in China can be traced back so far, it is still evident that the professionalisation of esports is providing new opportunities for women to step into the esports industry. After the popularity of the WCG, international championships for MOBA games appeared and became the most typical genre of esports championships worldwide. Among all of the MOBA game championships, the *League of Legends* World Championship (Worlds) and the TIs Championship (championship of the *Dota 2*) are two of the most popular events. The Worlds has been operated by Riot Games annually since 2011 and has become the top-level championship for *LoL*. In 2018, the final prize pool of the Worlds reached $6.45 million (esports Earnings, 2019), and the event attracted a total of 51 million views on *Twitch.tv* (esports Charts, 2018). In the same year, the TIs, which has been operated by the Valve Corporation since 2011, had a final prize pool of $25.53 million (esports Earnings, 2019). The total views for TI 2018 reached 56.06 million on *Twitch.tv* (esports Charts, 2018).

Furthermore, according to NewZoo (2018b), the total number of esports audience has reached 215 million, 165 million of whom are enthusiasts. Therefore, it is easy to see that professional esports play has developed on a considerable scale, and the championship tournaments for MOBA games occupy a certain position. During the past decade, a wide range of MOBA games established their championships, such as *KoG* and *Overwatch* (Blizzard Entertainment, 2016). These championships are attracting an increasing number of viewers and sponsors. In terms of women's participation, professional play has become an important area to explore the role of gender in the esports industry because of the considerable gender gap in this field. Moreover, while esports championships represent the top-level of skill mastery in esports play, the role of gender in professional esports play has broader influences on the gender issue in esports culture.

Fundamentally, compared with other video game genres, the development of the professionalisation of esports is providing more diverse ways for women to take part in the industry. As was mentioned in the previous section, this research has detected that women emerged during the early stage of the professionalisation of esports in China. The most direct evidence is the founding of TSL, the Chinese women's *CS* team mentioned above. This team is a typical women's esports team with sponsorship that emerged during the early years of esports development in China. In recent years, women's teams for MOBA games have also appeared. They can be seen at the International Electronic Competitive Women's Club Grand Prix (EWG), which was founded in 2016 and has become the largest women's esports competition in China. The EWG is supported by the Ningbo China Cultural Industries Fair (NBCIF) and has attracted more than 10 women's esports team to compete since 2016 (NBCIF, 2018). These women's esports team are from Korea, Hong Kong and Mainland China. It is clear that women professional players are emerging in the realm of professional esports play. At a basic level, the increase of women professional players echoes the increasing number of women in esports, particularly in mobile esports.

However, beneath the surface of the increasing exposure of professional women players, this research has revealed a considerable gender gap in professional esports play. First, women are absent from core international esports championships. As discussed above, the Worlds and the TIs have developed into the most influential esports championships within not only the realm of MOBA games, but also the entire realm of esports. What has rarely been mentioned in current esports studies is that men are dominating both the Worlds and the TIs. In the main event of both the Worlds and the TIs, women have been absent from the main event since 2011, which was the first year of both of those tournaments. This is to say, men are the dominant group of top-level MOBA game championships. Clearly, despite the increasing exposure of women professional players, women esports players remain marginalised from core competition.

Second, the gender gap not only appears in the aspect of top-level esports tournaments but also in the aspect of income. A vivid case is presented in Zhu's description of her team (in-depth interview, 4th January 2018):

'Half of the members of our team are not full-time players, such as me; I have a full-time job and can only train with my teammates during my leisure time.'

What is revealed from Zhu's statement might be a veritable image of current women professional players. Adopting professional esports as a career appears to be more difficult for women due to limited investments. The situation described by Zhu is the early stage of esports development in China around 2000s. During the past decade, the development of the professionalisation of esports has improved the incomes of professional players. The huge prize pools of both the Worlds and the TIs could be the direct cause. However, a noticeable gender gap was detected in esports income. Strong evidence was detected on *esports Earnings (2019),* which is a professional statistics website focusing on calculating esports professional players' income. According to its reports of *Highest Overall Earnings* and *Female Players,* Sasha Hostyn from Canada is the women with the highest income in esports. As of August 2019, the total money she had won from competitions was more than 0.3 million, which puts her in 330th place worldwide. This is to say none of the top 329 of the highest-earning esports players is woman. Obviously, the income gap between man and women in professional esports play is serious.

As Paaßen et al. (2017) point out, the phenomenon that 'almost all professional and highly visible figures in gaming culture are male' is the core reason for the persistence of gendered stereotypes in the video game area (p.421). This phenomenon exists in esports likewise. Since professional esports play represents the highest level of esports play, the considerable gender gap in professional esports play may reinforce the masculinity of esports culture and strengthen gender stereotypes. In consideration of the negative influences exerted by gender discrimination and stereotypes regarding women's participation in esports (See Chapter 4), it is necessary to conclude that such a gender gap in professional esports play creates barriers hindering women from joining esports. The masculinity of professional esports play exerts influences on esports culture through a top-down scheme. Such influences partly explain why the considerable increasing number of women in esports, particularly in mobile esports, have not affected the masculinity of esports fundamentally.

Understanding the gender gap in professional esports play

The reasons driving this considerable gender gap in professional esports play are complicated. The limited number of women has been detected to be associated with this gender gap, particularly in the area of PC esports. As discussed in former part of this thesis, the total number of women esports player is still limited, and the majority of them are concentrating on mobile esports games. Thus, since current influential esports competitions, such as the Worlds and the TIs, focus on PC esports games, the limited number of women in PC esports make it less likely for womento be present in world level competitions. This is not surprising since the area of professional esports play has been understood to be male-dominated for a long time. Additionally, what is worth discussing in detail is that this research revealed that the gender gap in professional esports play is largely the result of the incomplete development of professional esports and the fact that professional esports play is strongly associated with masculinity.

The first problem revealed by this research is the incomplete development of professional esports and intense competition that provide limited opportunities for women to participate in esports tournaments. As a result, few women become professional players as their careers. To understand this issue, it is helpful to look at women's participation in traditional sports firstly. In fact, how to balance men's and women's participation is a long-existing problem in areas involves competitive activities. In the field of traditional sports, dividing competitions into men events, women events and mixed-gender events are a common method adopted to ensure women's participation. Indeed, traditional sports have gone through a long period of change to improve women's participation. In traditional sports competitions like the Olympics, women's participation has gone through a long and difficult evolution (Defrantz, 1997). Women were excluded 'from competition in the ancient Olympic Games, and again in the first modern games in 1896' (Kinnick, 1998, p.213). With the current approach to organising events, the gender gap in the Olympics is narrowing. For instance, women accounted for 40% of the participants in the 2014 Olympic Winter Games and 45% of the participants in the 2016 Olympic Games in Rio de Janeiro, Brazil (Olympic, 2019). Models for dividing athletes by gender and organising sports

events by gender have enabled women's participation in contemporary sports tournaments. In accordance with traditional sports, the formation of women's esports tournaments provides opportunities for women to participate in professional esports play. As mentioned in the last section of this chapter, women's esports championships have appeared and improved women's participation, such as the EWG. Superficially, dividing esports championships by gender appears to be a reliable method to narrow down the gender gap in professional esports play.

However, this research detected that the entire development of professional esports play is not mature enough to provide opportunities for women to join top-level esports tournaments. The development of women's championships remains to stay at a very limited level.   In the field of traditional sports, organisations such as the Olympics have matured so they can ensure that women are present at the highest level of sports competition. On the contrary, the competition for joining the highest level of esports tournaments remains intensive. As Li, a former professional esports player in China, argues in the in-depth interview:

> *'Lots of current men professional players have limited opportunities to*
> *join top-level competition. Like for the Worlds, only a dozen teams can*
> *enter the main event but there are more than thousands of professional*
> *players. Opportunities for women are then much less.'* (28th December, in-
> depth interview, 2017)

This argument clearly suggests that top-level professional esports tournaments are not developed enough to provide opportunities for women to compete. Meanwhile, women's esports tournaments, such as the EWG, are still held on a relatively small scale and have limited influence within the esports field. At the same time, Li further mentioned the problem of imbalanced skill mastery between men and women in professional esports play. As he described,

> *'It is not bias… but, as much as I saw, men indeed outperform women in*
> *skill mastery in professional esports play.'* (28th December, in-depth
> interview, 2017)

Even though there is no evidence to support the idea of women are not as skilful as men in professional esports play, the problem mentioned by Li is still notable. This is because a lack of certain skills leads to the problem of lack of excellent performance. These two aspects – skill and performance – are normally understood as constituting game performance, which has been identified as one important dimension for evaluating the quality of a sports event (Hansen & Gauthier, 1989; Jae Ko et al., 2011). In other words, the situation is that the quality of women teams' performance may be not enough to either win influential competitions or attract large audiences. Thus, women's absence from top-level esports play may partly due to their limited skill mastery. However, from a broader context of professional esports championships, the limited opportunities provided by the esports market is one of the key factors preventing women from taking part in professional esports play. This limitation is particularly obvious at the highest levels of esports tournaments.

Apart from the incomplete development of professional esports tournaments, the masculinity of professional esports play creates discrimination and a hostile atmosphere for women who play esports game. The gender biases that exist in professional esports go even beyond the situation in non-professional esports play. Such gender biases can be vividly exemplified by a recent event that took place in the *League of Legends* Continental League (LCL) in 2019. An all-women team named Vaevictis joined the LCL competition on 18th February 2019. During the first-round game, Vaevictis met an all-men team called Rox. Rox banned five support champions during the ban/pick process[10] at the very beginning of the game. This is to say Rox banned characters who are not important because they were already so confident that they would win. During the second round of the game, Vaevictis met another all-men team named Vega Squadron. In this match, Vega Squadron focused on killing the champions controlled by Vaevictis repeatedly rather than finishing the competition, even though they could already have won the match.

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[10] The ban/pick process is a MOBA game mechanic in which each team can choose up to five champions as unavailable. It happens at the very beginning of each game. This process enables player to ban champions who are threatening to their squad or champions who are excellent controlled by the opposing team.

On 22nd February, the LCL administration released a warning to both Rox and Vega Squadron regarding their gendered discriminatory behaviour. The official warning points out Rox was disrespectful to the opponents and Vega Squadron extended the game play on purpose (Russian *LoL* official website, 2019).   This was the first time that an official esports competition organisation has published an official warning regarding gender discrimination in professional esports play. What is more interesting is that in a later match on the same day, the team Der Zentral Magier and the team Elements Pro Gaming banned 10 support champions in total in order to protest the warnings released earlier. Both Der Zentral Magier and Elements Pro Gaming are men esports teams. This case provides a clear sample of the direct conflicts between professional men players and women players, irrespective of the real capability of the team Vaevictis. As women are attempting to step into the male-dominated field of professional esports play, men hold a kind of questionable hostility towards them. At the same time, this event shows that the hostile atmosphere toward women in professional esports play has aroused concern from the industry.

Through this anecdotal evidence, it is clear that gender conflicts exist in professional esports play. It can be seen that official organisations of esports tournaments are making efforts to build a comparatively fair and safe environment for women to participate in professional esports play. However, evidence shows that men in professional esports play are rejecting women's participation. The same problem has been discussed in traditional competitive sports (Tännsjö, 2002). Besides the strategy of creating rules to forbid 'aggressive athletes to punish their (women) competitors' (Tännsjö, 2002, p. 107), the other important aspect suggested by Tännsjö to solve conflicts between men and women in professional sports participation is that men should have an objective cognition regarding competition with women. Tännsjö further points out that the fact that men players hold unfriendly attitudes towards women players arises from anger at losing games to women. The most typical evidence is that since the TIs and the Worlds were founded in 2011, there has never been a women team, or even a women player, appeared in the main event of those world's top esports events. However, in the field of esports, women teams are far from capable of beating men teams in the highest levels of esports tournaments. Thus, the hostile attitudes towards women professional players may be explained more comprehensively by the idea that women's appearance in

professional esports play 'challenge[s] men's power and control' (Everbach, 2018, p.135). In other words, the hostile attitude towards women professional players is possible to be a strategy that men players have adopted to protect their dominant position in professional esports play. However, since this research did not involve professional men players, there is little further evidence that can be provided to support this discussion. This could be a notable issue for further esports research. What I have touched upon here is that the unfriendly, even unsafe environment of professional esports play is constructing barriers for women to compete on the professional esports stage.

In summary, the two reasons mentioned above contribute to the expanding gender gap in professional esports play. What is worth noting again is that while there is an increasing number of women in esports play, professional esports play remains dominated by men. Putting aside the idea that men and women are naturally different when it comes to playing competitive computer games, this section provides another possible explanation for why men are establishing an unfriendly atmosphere to prevent women's appearance in professional esports. This is because professional esports play represents the highest level of esports play and women's appearance in this area is impacting the dominant masculinity. Such a conclusion echoes Tännsjö's (2002) idea that the lack of outstanding women in sports and other social fields 'is due to socially constructed gender differences, not to biological sexual differences' (p.106). The extending gender gap in professional esports play is constructing the stereotype of women as less skilled esports players who are not qualified to participate in top-level esports play. The most direct method professional men players have adopted to work against professional women players is to establish an unfriendly and hostile atmosphere in tournaments. Furthermore, if we extend the discussion to women's general participation in esports, it is foreseeable that the expanding gender gap and gender discrimination in professional esports play can influence women's participation in esports from the top down. This is because professional esports play represents the highest competitiveness in esports, and competitiveness is one of core features of esports play. In other words, on one hand, the gender gap in professional esports play results from the masculinity. On the other hand, this gender gap further strengthened the men's dominance in this area.

esports online streaming and gender discrimination

Online streaming platforms is now becoming one of the most common and popular platforms for players to engage with esports content (Edge, 2013; Pellicone & Ahn, 2017). To explore gender issues in the esports industry, it is inevitable to pay attention to women working in this area. In contrast with the gender gap in professional esports play, women more frequently appear in esports online streaming as content creators. However, the comparatively large number of women streamers in online streaming does not indicate there is no gender discrimination in esports online streaming. On the contrary, this research has detected that gender discrimination does indeed exist in esports online streaming. Moreover, the polarity of women streamers itself is reflective of the discrimination and objectification of women esports streamers. Before presenting further discussion on esports online streaming and women's participation in esports, it is important to mention that this research defines esports streamers on online streaming platforms as a part of the esports industry. This is because, on one hand, online streaming enables either individuals or groups to gain profit from live streaming content through these platforms. On the other hand, online streaming is playing an increasingly important role within the video gaming community. Relating to esports, Edge (2013) points out the online streaming has been identified as 'the technology that the growing sphere of competitive gaming rests upon' and is playing an important role for users to interact with esports community (p.1). As it is becoming the main method for viewing esports and esports commentary, online streaming appears to be increasingly important for the industry. For that reason, this chapter focuses on online content creators as an important aspect of the investigation of women's participation in the esports industry.

Moreover, even though studies are starting to reveal that there is discrimination and objectification of women in video game online streaming (Anderson, 2017; Nakandala et al., 2017; Ruvalcaba et al., 2018; Ruberg et al., 2019), they have not presented the entire picture of women in esports online streaming. While men appear to be the dominant group in the esports industry, esports streaming provides women the opportunity to take part in the industry without interference from the masculine power of the esports industry. What is worth to be noted is that women streamers are popular,

which is neither in line with the absence of professional women players nor in accordance with men's dominance of esports play. The core idea to explain this inconsistency is that the popularity of women streamers is a reflection of the objectification of women in esports online streaming. This section first focuses on the development of online streaming platforms and the combination of online streaming and esports. Second, this section presents and carefully considers the popularity of women streamers.

Combination of online streaming and esports

A wide range of content has been live streamed on the online streaming platform, such as educational content, video game play, cooking and so forth. Edge (2013) points out that online streaming platforms have 'created a new interactive internet exclusive marketplace that does not require traditional broadcasting methods' (p.1). Indeed, as one of many newly emerged methods of content spreading, the primary feature of online streaming platforms is that they are based on user-generated content (UGC). This feature enables players to share their game play with audiences through an accessible pathway. Online streaming has basically been described as a platform where 'major tournaments are broadcast, but generally a single player broadcast his games, chats, explains his game style and gives advice, which finally induces new kinds of relationships between him and his spectators' (Kaytoue et al., 2012, p.1181). Basically, online streaming has changed the way individuals take part in video games (Pellicone & Ahn, 2017) and has attracted millions of users (Jia et al., 2016). By the end of 2017, the total views on *Twitch.tv* had reached 1.7 billion, with esports views accounting for 21.3% (Influencer Marketing Hub, 2018). This is to say more than 36 million views on *Twitch.tv* were related to esports by the end of 2017. In fact, online streaming platform is one of the most influential method for audiences to receive esports related content. The combination of esports and online streaming can be understood through three aspects.

Firstly, when it comes to esports, as discussed in former chapters, MOBA games naturally involve a high level of teamwork and interaction among players. This is to

say interaction is one of the necessary experiences of playing esports games, particularly MOBA games. Similarly, watching online streaming provides high levels of interaction. Although it is inadequate to argue that the interactive experience in watching online streaming is similar with the interaction in playing esports, it has been proved that the interactive aspect of online streaming is an important element that attracts users (Jia et al., 2016). The communication in online streaming mainly occurs through real-time video and audio communication (Kaytoue et al., 2012) and the bullet screen. The bullet screen means audiences' real-time comments are overlaid onto the streaming screen. These comments are usually shown flying over the live stream image like bullets. Among all the methods of interaction that happen between streamers and audiences, the bullet screen occupies 69.13% (iResearch, 2018). The streamer's real-time live audio and video and the majority of the stream's content is game play, but at the same time, audiences interact with the streamer and with each other through the bullet screen. In summary, online streaming enables audiences to watch game related contents while enjoying communication with both the streamer and other audience members. Such high interactivity in watching esports online streaming helps attract considerable numbers of viewers.

Second, immediacy is a key reason for the popularity of esports streaming. Immediacy has been emphasised as an important element in sports broadcasting for a long time (Gruneau, 1989; Real, 2006) and appears to also be important in esports live streaming (Gandolfi, 2016). Similar to watching other competitive activities, knowing the result of a competition 'as it happens' is significant for audiences. Online streaming meets audiences' requirement of watching real-time events. Furthermore, such immediacy enables audiences to share live playing experiences with streamers. This is particularly attractive when watching skilful streamers' since it enables audiences to enjoy game experiences 'at a professional level' (Kaytoue et al., 2012).

Third, the popularity of streaming platforms can be seen as a result of the marginalisation of video games in traditional media platforms, particularly in China. In studies focusing on the online streaming of video games, the relationship between video games and traditional media platforms has rarely been mentioned. The phenomenon of digital games being marginalised from traditional mainstream media is particularly obvious in China. As was discussed in Chapter 4, there is a fault line in Chinese gaming

culture due to policy constraints that existed from 2000 to 2014. One of the consequences of those policy constraints is that video games were marginalised from mainstream culture for a long period. Likewise, contents associate with video games have long been avoided by traditional mainstream media, such as satellite television. Online streaming then fills the gap, 'allowing anyone to stream anything they want' (Smith et al., 2013, p.131). Even though it is too exaggerated to argue that people can live stream anything they want, it accurately emphasises the idea that this media form transfers game video production 'from large corporations and organizations towards smaller entities and individuals' (Sjöblom et al., 2017, p.161). The form of UGC enables individuals to live stream esports and make a profit from doing it without getting permissions from any game companies or agencies. This change has been considerably important to women's participation in the esports industry. While there is a considerable gender gap and gender bias in the gaming industry (Vermeulen & Van Looy, 2016), live streaming esports helps women avoid, to a considerably degree, the male-dominated power hierarchy of the gaming industry. Even though the masculinity in esports culture still influences women's presence in esports online streaming (which is discussed later in this chapter), the popularity of online streaming still increases women' presence in the industry.

The popularity of women in esports online streaming

As discussed in the literature review, the popularity of online streaming platforms provides a new way for women to take part in the esports industry. Most importantly, the online streaming platform provides a comparatively inclusive atmosphere for women to live stream contents associated with esports. As the interviewee Ru, who is the Interaction Design researcher at NetEase Games described:

> *'There are more and more women streamers now. You can find women game streamers on almost any platform. Some of them are esports streamers while some of them live stream a wide range of content includes esports' (in-depth interview, 8th January 2018).*

Indeed, the open atmosphere of online streaming contributes to the increasing number of women in esports online streaming. As well as having this open atmosphere, it is worth noting that online streaming requires a lower level of technology engagement comparing with professional esports play. As discussed in Chapter 4, technology engagement, like knowledge of computer science, has been identified as an obstacle for women to take part in either the playing of video games (Bell and Chalmers et al., 2006; Wei & Lu, 2014) or obtaining jobs in the video game industry (Henden et al., 2008). Online streaming is comparatively easy to learn since streamers can even live stream through their smartphones. Fundamentally, online streaming has largely removed barriers of technology engagement in the process of women's participation in the esports industry. Such a change has never been seen before within the entire video game industry and has rarely been addressed by esports scholars.

Given the considerable gender gap in professional esports play, the increasing appearance of women in esports online streaming is not the only phenomenon worth noting. This research revealed that women streamers are as popular as men streamers in the esports field. Direct evidence emerges from the *Ranking of the Best Streamers* published by *DouYu* (2017, 2018), which has published rankings of the most popular and influential streamers on *DouYu* since 2017. In 2017 (*DouYu*, 2017), there were six women ranked in the annual top 10 streamers of *DouYu*, five of whom were in the category of esports. In 2018 (*DouYu*, 2018), *DouYu* published a more detailed ranking by categorising the various contents of live streaming. In the category of video games, five women ranked in the top 10 that year. What is more important is that all five of those women belonged to the esports category. These data clearly show that women have a strong presence in esports streaming. This is significantly different from the gender gap in professional esports play. Women have not only become visible in esports online streaming, but they have also become popular.

However, the popularity of women in esports online streaming is problematic. Since esports remains a male-dominated realm, why are women as popular as men in esports online streaming? Moreover, as Kaytoue et al. (2012) point out, video game online streaming enables audiences to enjoy game play experiences at a professional level. Thus, if skill mastery is a factor making it difficult for women to participate in professional esports play, are these popular women streamers attracting audiences due

to their gaming skill? At the same time, what is worth noting is that only one woman among those mentioned above belongs to the category of mobile esports (*KoG*) while the others all stream PC esports such as *LoL*, *Dota 2*, *Overwatch* (Blizzard Entertainment, 2016) and so forth. This is to say the most popular women in esports online streaming mainly concentrate on PC esports. Since Chapter 4 clearly showed that the majority of women esports player prefer mobile esports, it seems surprising that most women have become popular by playing PC esports. Through further analysing the data from the fieldwork, this research reveals that the popularity of women esports streamers is highly associated with the masculinity of esports culture.

Gender discrimination in esports online streaming

According to previous video game studies, a common explanation of the popularity of women streamers in PC esports is that women become popular in esports live streaming because of 'the desire from the gaming community to watch women play video games' (Anderson, 2017, p.1). The majority of the video gaming community is men player. As of June 2018, men represented 81.5% of *Twitch.tv* users (Influencer Marketing Hub, 2018). In China, 67.8% of audiences of video game online streaming were men as of 2018. More specifically, as of June 2018, men accounted for 92.7% of *Dota 2* online streaming audiences and 53.8% of *KoG* online streaming audiences (iResearch, 2018). Anderson's arguments clearly point to the idea that women become popular in esports online streaming, particularly in PC esports, due to the large number of men who want to watch women. This idea echoes Ruvalcaba et al.'s (2018) argument that women streamers become popular 'because they are a woman' rather than because they have a certain level of in-game skill (p.298). Obviously, the community of video game online streaming plays an important role in the popularity of women in esports online streaming. Moreover, the dominant men aesthetic for women streamers is contributing to a masculine atmosphere in video game online streaming.

At this point, gender discrimination is close to the surface. From a practical perspective, there are two points that need to be mentioned in order to illustrate the gender discrimination and objectification of women streamers that exist in esports online

streaming. On the one hand, the comments posted on video game online streaming sites have been revealed to be highly related to gender discrimination and the objectification of women. By analysing one billion comments from *Twitch.tv*, 2017, Nakandala et al. (2017) found that women streamers receive more gender-related comments while men receive more game-related comments. Nakandala et al. (2017) define 'objectification cues' in their research as comments associated with the appearance and body of the streamer and comments regarding streamers as objects. When analysing the gender-related comments, they found that comments on women streamers' channels are strongly related with objectification cues. What is more notable is that a later study carried out by Ruvalcaba et al. (2018) shows that those comments are likely to be expressed in a positive manner. That study reveals that 37% of the positive comments on women's channels relate to the streamers' appearance; such comments are defined by Nakandala et al. (2017) as objectification cues. Furthermore, Ruvalcaba et al.'s (2018) research shows that only 7% of men streamers' comments are related to objectification. This number clearly indicates that there is a clear gendered objectification of women esports streamers. It is evidential to argue that there are obvious gendered differences in the comments on esports online streaming, with discrimination and objectification mainly focusing on women.

On the other hand, the content of esports live streaming appears to be different on women's channels than on men's, as women channels are associated with entertainment content (e.g., singing and dancing) while men's focus on gameplay. An initial piece of evidence was revealed from the focus group interviews for this research. As was mentioned in Chapter 4, the term 'online streaming' appeared four times in six focus group when this question was asked: 'What word do you think of when you hear "women esports player"?' By reviewing the transcription contents around those four occurrences, a few comments were found to show that men are attracted by the non-game related contents of women esports online streaming:

> *'There are lots of women streamers of* LoL. *I sometimes watch them sing a song or dance. They are cute'* (Men interviewee in Focus Group 4, student, 2018).

This quote emerged in an all-men focus group, and another men interviewee stated, '*It is interesting to watch a girl singing and dancing while she can play esports*' (Men interviewee in Focus Group 4, student, 2018). Moreover, the interaction with women streamers is the primary reason for men to watch women's esports live streaming. For instance, as one interviewee mentioned, 'I like to talk with women streamers and it is more interesting when she is organising gameplay with Shuiyou[11]' (Men interviewee in Focus Group 3, programmer 2018). This empirical evidence clearly suggests that men audiences' viewing of women streamers' live streaming is largely stimulated by the motivation of enjoying entertaining and interactive content rather than the quality of the women streamers' gameplay. Under the influence of men's preferences, it is not hard to see why there is a good deal of casual content in women's live streaming channel in esports. As Ouyang, a game developer that works at Duoyi Network Technology, explained:

> '*The problem is that esports streaming never lacks streamers who can play the game well. Thus, it is hard to become a top streamer by relying on skill mastery. It will be much easier if the streamer is beautiful or the live stream is interesting and interactive*' (in-depth interview, Ouyang, 24th January 2018).

Ouyang's argument suggests the trend of live streaming casual and entertaining content on women esports streamers' channels. Meanwhile, this trend is the strategy women adopt to meet the requirements of the men-dominated community of esports online streaming. Such differences between men's online streaming content and women's online streaming content are partly associated with the idea that women esports streamers' channels are associated with sexual attraction (Anderson, 2017; Ruberg et al., 2019). For instance, women streamers of video games may appear in sexualised outfits. This research further proves that the content of women's channel of video games diverges from game play itself to a certain degree.

In summary, there is an increasing number of women taking part in esports online streaming and those women esports streamers enjoy the same popularity as men esports

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[11] Shuiyou is a friendly name for audiences of online streaming in China.

streamers. Compared with professional esports play, which is extremely male-dominated, it seems less difficult for women to become a esports streamer. On the surface, the popularity of women esports streamers seemingly suggests that esports live streaming holds a more welcoming atmosphere towards women. However, understanding the popularity of women esports streamers as representing progress regarding the gender imbalance in the esports industry is superficial. In fact, the popularity of women esports streamers reveals a highly masculine esports culture in practice. Since men make up the majority of the esports online streaming community, the popularity of women esports streamers could easily be explained by men's desire to watch women live stream. Meanwhile, there is clearly gender discrimination and a trend of objectifying women among audiences' interactions with women streamer. The content of women's channels in esports online streaming is not focused on exemplary game play; the content shows a trend of being casual and entertaining.

What is worth mentioning is that gender discrimination, gender objectification and the trend of live streaming casual and entertaining content are all detected to be particularly relevant to women's channels. Considering the dominance of men audiences in esports streaming, it is evidential to argue that the masculinity of this area is similar to the masculinity of professional esports play. This is because the popularity of women esports streamers is driven by masculine tastes and women esports streamers are readily identified as 'cam girls' rather than game players (Ruberg et al., 2019). As a result, the persistent masculine preferences in esports online streaming reinforce the misunderstandings and gender stereotypes associated with women esports player. In Chapter 4, this thesis discussed of how masculinity and stereotypes alienate women from playing esports. The current popularity of women esports streamers is not a promising sign that the gender gap in esports is narrowing.

Gender discrimination in esports Commentary

As mentioned in the literature review, esports commentary has become one of the features that differentiates esports from other video games. Moreover, it provides a new opportunity for women to take part in this industry. At present, esports commentary is mainly released on online streaming platforms (Taylor & Witkowski, 2010; Carter et

al., 2017; Gibbs et al., 2018). The popularity of live streaming esports tournaments online indicates the fact that esports commentary is deeply rooted in online streaming platforms and shares a similar culture with esports online streaming. As discussed earlier in this chapter, even though the esports streaming culture appears to be a kind of masculine culture, women streamers remain to be popular in this area. However, in terms of women's participation in esports commentary, a serious gender gap was detected, mirroring the situation in professional esports play. This section explores why women are much less popular in esports commentary. Meanwhile, this research detected that professional knowledge of esports play is an obstacle for women to be esports commentators. However, the masculinity of esports culture, particularly in professional esports play, is a key point to understand the gap between the popularity of women esports streamers and the limited number of women commentators.

To investigate women's participation in esports commentary, the most clear and typical evidence is the gender gap of commentators for the TI events from 2016 to 2019 *(Dota 2* Official Website, 2019b*)*. By analysing commentators' profile published on the *Dota 2* official website, the gender ratio is concluded in Figure 4:

Figure 4. Percentages of men and women commentators for the TIs from 2016 to 2019.
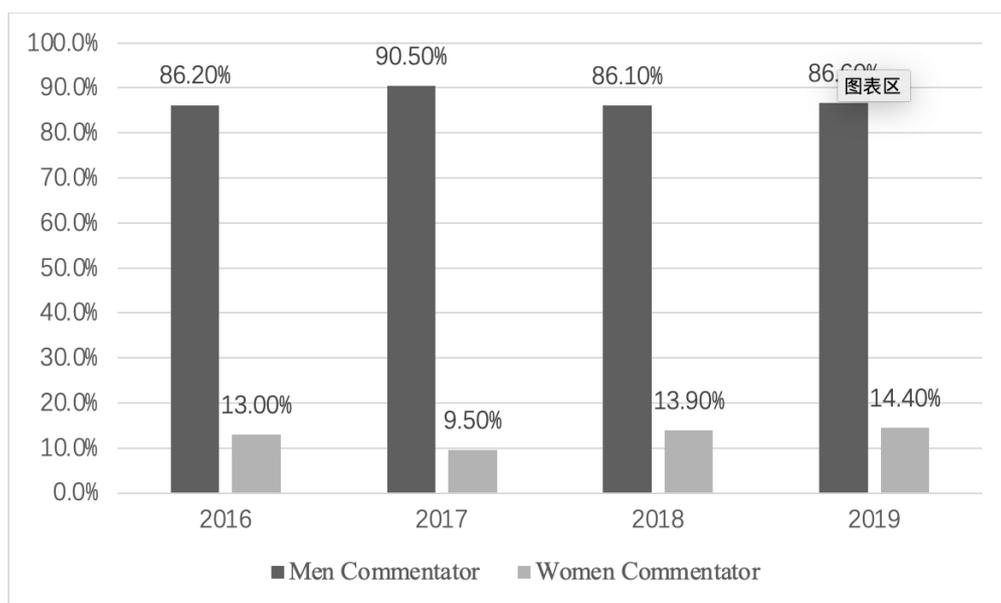
Source: Data collected from news reported published on *Dota 2* official website (2019).

Clearly, during the past four years, the total number of women commentators at the TIs has remained low and relatively consistent. This is to say, at least at the official commentary level, men remain the core characters of esports commentary. What is important is that the low number of women commentators in official esports commentary is stable. This is to say while the total number of women players is increasing, the top-level of esports tournaments commentary remains dominated by men.

Focusing on the inconsistency between the increasing number of women esports player and the consistently low number of women esports commentators, there are two points that need to be noted. First, lack of professional knowledge is an important factor. In traditional sports commentary, having certain professional knowledge has been shown to be linked to credibility (Sheffer & Schultz, 2007; Grubb & Billiot, 2010). Likewise, having certain professional knowledge is the basic requirement for esports commentators. In an interview, Zhou, an esports commentator, explained professional knowledge:

> *'In order to explain the competition to audiences, the commentator should have professional knowledge of the game and be able to provide useful and correct information'* (in-depth interview, 29th December 2017).

Women's appearance in professional esports commentary is similar to fields of sports commentary and news report, fields of competitive activities and are dominated by men. Traditionally, studies show that women are regarded by both the sports industry and audiences as less credible when it comes to professional knowledge (Sheffer & Schultz, 2007; Grubb & Billiot, 2010). As illustrated by Sheffer and Schultz (2007), women who managed to enter the sports commentary and journalism have to 'out-perform (men) to avoid being a 'scapegoat' for ratings disasters' (p.94). Moreover, one possibility suggested by these studies is that women do not have as much sports knowledge as men and they become sports commentators largely due to their gender and appearance (Grubb & Billiot, 2010). Similarly, in the realm of esports commentary, clues indicate that credibility related to professional knowledge partly accounts for the limited number of women in esports commentary. Research indicates that commentators who used to be athletes or who have athletic training are preferred by audiences because those

people are perceived as having high levels of credibility and knowledge of sports (Allen, 2003; Grubb & Billiot, 2010). As mentioned above, women are still marginalised from the core part of esports tournaments. There are no women with experience participating in the final events of either the TIs or the Worlds. Therefore, it is hard for current women esports commentators to obtain credibility regarding professional knowledge through their experience as a high-level professional player. As long as women continue to be marginalised from the top-level of esports play, their ability to commentate on those tournaments will be questioned, which in turn presents barriers to women commentators improving their credibility regarding professional knowledge.

Second, masculinity, or even masculine hegemony, is the other factor explaining the gender gap in esports commentary. In traditional sports research, it is suggested that the gender gap in sports broadcasting and commentary is highly associated with the masculine hegemony in sports. Since men dominate the sports industry, the appearance of women in areas such as esports commentary 'challenge men's power and control' (Everbach, 2018, p.135). Therefore, alienating women from participating in sports commentary is a strategy men adopt to protect the masculine hegemony in the sports industry. As mentioned above, professional tournaments represent the highest level of performance in esports and men are the dominant group in professional esports play. Particularly, the TIs and the Worlds represent the highest level of in-game skill mastery in MOBA games at present. Therefore, the commentators for these tournaments, at a basic level, are the individuals who have the best ability to comment on the top players' performances. Since professional esports is dominated by men, the limited number of women commentators could be explained as a strategy man adopt to protect the masculinity of esports culture.

However, even though evidence indicates that men adopt strategies to resist women's participation in esports commentary, this research did not detect sexual harassment on women commentators. Through communication with Zhou, who is a women esports commentator in China, it was detected that there are no obvious incidents of sexual harassment in esports commentary (to the best of her knowledge) and the atmosphere in esports commentary shows respect for women. As Zhou described as a 'friendly' atmosphere:

> *'I didn't experience any sexual harassment in working. The commentator*
> *is just similar to other women working in this industry and my colleagues*
> *are friendly'.* (in-depth interview, 29th December 2017)

Even men working in the esports industry have expressed ideas regarding gender equality. As the men interviewee Da mentioned (the event operations manager of the *KoG*, in-depth interview, 15th January 2018), '*I don't think there is serious gender discrimination in the esports industry. Women obtain their position due to their capability*'. As discussed earlier in this section, women need to over-perform men to make their ability to be seen in fields like sports and esports (Sheffer & Schultz, 2007), Da's statement appears to underrate the specific pressure on women's professional capability of working as a commentator. However, his statement clearly show that the esports industry holds a comparatively friendly attitude to women in this field. At least from a men staff's perspective, he believes that the esports industry evaluates women's capability objectively.

According to both Zhou's and Da's statement, there is less sexual harassment in the area of esports commentary. This is contrast to the finding that sexual harassment has been detected in the traditional sports industry as an element alienating women from joining sports broadcasting and commentary (Grubb & Billiot, 2010; Everbach, 2018). Moreover, considering that men players hold directly hostile attitudes to women players in professional esports play, as was shown earlier in this chapter, such a gender respected atmosphere is neither in accordance with the hostility that exists among professional esports players, nor is it in accordance with men's alienation of women from esports commentary to protect the masculine hegemony. Therefore, the prevalence of such a gender respected atmosphere appears to be questionable.

Previously, studies have pointed out that men are more likely to carry out sexual harassment of women when women's appearance in the field of sports threatens their gender identity (Pratt et al., 2018). This is to say men are less likely to engage in sexual harassment if women are not perceived as a threat to their gender identity. Thus, a more reasonable explanation for the comparatively gender respected atmosphere in esports commentary is that women are not a threat to men in this area yet. Considering their lack of credibility in professional knowledge, women commentators are not threatening

enough to men. While women commentators have not managed to challenge men's dominating position of esports commentary, it is reasonable that men staff appear to be friendly to women. Furthermore, the popularity of women in esports live streaming further supports the idea that women are still outside of the core esports culture and pose limited threat to men. As mentioned above, esports commentary shares the same cultural atmosphere as online streaming since the commentary is mainly broadcasted on online streaming platforms. Therefore, if the popularity of women esports streamers is largely due to men's preferences, why is the number of women commentators on online streaming platforms limited?

As previous section discussed that women's channel of esports online streaming shows casual and entertaining content to a certain degree. Moreover, discrimination and the objectification of women in esports online streaming contributes to a recognition of women streamers as casual streamers rather than esports streamers. In this situation, women streamers accepted by audiences as objects to be looked at. Consequently, it becomes hard for women streamers to present their abilities to play esports excellently. Since women are not culturally threatening enough to men, such inconsistency becomes easy to be understood. When it comes to core areas such as professional esports play and esports commentary, men may resist women's participation since these two areas represent the highest level of esports competitiveness; this can be seen in the directly hostile attitude men professional players hold towards women professional players. Taken together, masculinity plays an important role not only in general esports play, but also in the esports industry as a whole. Since professional esports play and esports commentary differentiate esports from other computer games and present the highest level of esports play, investigating the role of masculinity in those two areas is vital. If the discussion of masculinity in esports is to be moved forward, further experiential data still needs to be gathered by further research.

Conclusion

As the previous chapters have shown, the number of women esports player is increasing, particularly in the genre of mobile esports. Inconsistent with the increasing number of women, their participation in the esports industry remains limited. This chapter

contributes to the investigation of women's participation in the esports industry, including professional esports play, esports online streaming and esports commentary. Even though the diversity of occupations in the esports industry is providing an increasing number of opportunities for both men and women, the gender gap remains significant in the esports industry.

In brief, women are marginalised from core professional esports play. This is partly due to the limited number of women in PC esports and the lack of players with top levels of in-game skill mastery. At the same time, it is partly due to the fact that women mainly concentrate on mobile esports while influential tournaments concentrate on PC esports. Additionally, women are a minority group in esports commentary. Lacking professional knowledge and experience of high-level esports tournaments is a challenge to women's participation in esports commentary. However, contrary to the limited presence of women in professional play and esports commentary, this research has detected that women's channels are popular in esports online streaming. Clearly, a gender gap exists in the esports industry. Moreover, since esports commentary is mainly spread through online streaming platforms, the inconsistency between the popularity of women esports streamers and the limited number of women commentators becomes problematic.

Further analysis indicates that the masculinity in the esports culture accounts significantly for the gender gap in the industry. On one hand, men hold an obviously hostile attitude towards women in the area of professional esports play. Professional esports play and esports commentary represent the highest levels of esports skill mastery, as was discussed in Chapter 4. Thus, men's resistance to women's participation in these two areas could be understood as strategies men have adopted to protect the masculine identity of esports (Everbach, 2018; Pratt et al., 2018). On the other hand, the popularity of women esports streamers largely results from the tastes of the male-dominated esports online streaming community. Women's esports channels appear to follow the trend of being casual and designed to appeal to a men audience. This is to say women esports streamers appear on online streaming platforms as casual streamers rather than as particularly skilled gamers. At the same time, gender discrimination and the objectification of steamers are typically associated with women's channels (Anderson, 2017; Nakandala et al., 2017; Ruberg et al., 2019).

Therefore, the evidence suggests that the serious gender imbalance in the esports industry indicates that a masculine hegemony exists in esports culture. Such a masculine hegemony resists women's appearance in the core areas of esports. However, this masculine hegemony is comparatively 'friendly' to women as long as they are not stepping into the core aspects of esports culture. For instance, women who live streaming casual and entertaining content are welcomed by men audiences. Moreover, the current situation of women's participation in the esports industry suggests that women are still in a marginal position within esports culture since they have not managed to step into the core areas of esports play.

Apart from answering Research Question #3, this idea partly addresses Research Question #1. Specifically, gender imbalance and the considerable gender discrimination revealed to exist in the esports industry reinforces the gender stereotypes around women in esports culture from the top down. Moreover, the masculine hegemony in the esports industry continually marginalises women from the central position of esports culture. In Chapter 4, this thesis discussed how gender stereotypes and the masculinity of esports culture have acted as barriers for women to take part in esports. Thus, the gender imbalance, gender discrimination and masculine hegemony detected in the esports industry not only discourage women's participation in the esports industry, but also negatively influence general players' participation in esports.

What is worth noting is that the gender issue in the esports industry is still under exploration, and this chapter provides an initial discussion of this problem. With the increasing number of women esports player, the masculine hegemony in esports culture will be affected. Furthermore, the development of women's skill mastery keeps challenging men's dominance in professional esports play. Thus, further research focusing on the gender issue in the esports industry should be carried out continuously to present a comprehensive and timely understanding of women's participation in both the esports industry and general esports play.

Chapter 8
Conclusion

The rapid development of esports has attracted a considerable number of both men and women. However, there continues to be a considerable amount of ignorance of gender issues in this field. Against this background, this thesis has investigated women's participation in esports and the role of gender in esports culture by carrying out empirical research. Before discussing the research processes and outcomes, Chapter 1 presents the introduction of this thesis. In addition, what was highlighted in the first chapter was the definition of the term of esports as *internet-based multi-player competitive digital games that have a clear definition of win and lose.* I have to mention that spheres of esports are far more complicate than simply being defined as a kind of online game. Most typically, the emergence of professional esports tournaments and related consumption is becoming increasingly important to understand esports as a whole (Taylor, 2012). Thus, the definition presented above aims at setting a boundary for the actual research process, particularly for the fieldwork. However, in the actual research process, this definition did not represent that I only paid attention to the side of esports as a kind of online game. On the contrary, this research further paid attention to the side of professional esports. Specifically, apart from women's participation as an amateur esports player, I further explored their participation in professional esports play, esports online streaming and esports commentary.

With this understanding of what esports are, this thesis presented a review of existing knowledge of gender issues in both esports and computer games in general in Chapter 2. Existing video game studies provide this research with significant references. Such as women's preferences, motivations and obstacles they meet in online computer games (Yee, 2006; Schott and Horrell, 2000; Bryce and Rutter, 2003). At the same time, computer game studies show the importance of understanding women's participation through their relationship with game culture (Dietz, 1998; Kafai et al., 2008; Taylor, 2009; Salter & Blodgett, 2012). However, current research findings can provide limited knowledge to explain women's participation in esports and the role of gender in the esports culture. Moreover, the development of esports is more complicate than

traditional video games, such as the development of mobile esports and professional esports play. Women's participation in these areas is underexplored.

To meet the research aim, this research adopted three research questions in order to understand women's participation and the role of gender in esports. Research Question #1 aims to explore women's preferences and motivations of playing esports. Research Question #2 pays specific attention to the difficulties they meet in participating in esports. Research Question #3 focuses on women's participation in professional esports, and, at large, in the esports industry. Specifically, Research Question #3 focuses on professional play in offline leagues, esports online streaming and esports commentary. To explore the three research questions, I collected both quantitative and qualitative data from one online questionnaire, six focus group interviews and ten in-depth interviews. These are analysing in Chapter 4 to Chapter 7.

Key findings

Findings presented in Chapter 4 provided answers to Research Question #1. In this chapter, elements that deter women from taking part in esports have been discussed. The first element that negatively influenced women's participation in esports was their engagement with esports related technology. Women respondents of this research show a comparatively weak level of engagement with PC technology. It is due, on one hand, to the gender imbalance that has long existed in technology usage, include computer technology. On the other hand, it is due to social influences, such as their responsibilities of household (Ahrens, 2013), that drive women more likely to use PC and the internet for domestic organization and work. As reflected in the research outcome, the majority of women respondents only play esports on smartphones or tablets. This result indicates women's participation in esports was seriously restricted in PC esports.

The second element discussed in this chapter was women shown comparatively low level of in-game skill mastery and less confidence about their play capability. This research found the trend that the majority of women participants prefer to play esports games that require only a lower level of in-game skill mastery. This phenomenon

reinforced the stereotype of women are less skilled player. However, there is no evidence to prove the gender gap detected in this research is due to sexual differences. One of the core reasons associated with women's in-game skill mastery is their confidence level. When women who participated in this research were less confident about their capability of play, they were less likely to play esports games with high frequency. Moreover, the low frequency of playing esports may negatively influence women players to improve their skill mastery in turn. As Hamlen (2010) describes, the relationship between the confidence level and playing skill is reciprocal in nature.

The third element that alienates women from esports explored was the gender stereotypes that exist in both video game culture and esports culture. esports, as a genre of competitive games, has long been formed as a male-dominated field. Meanwhile, this research detected the idea of women are casual players with poor in-game skill mastery was accepted by a certain part of esports players. These stereotypes have largely influenced women's participation negatively. The fourth difficulty women meet is their limited previous experiences of playing video games. The majority of women who participated in this research, particularly in focus group interviews, showed limited experiences of playing video games before they came to esports. As a result, they had little knowledge of how to access and play esports. This phenomenon gradually contributed to establishing the idea of esports as a male-dominated field. Moreover, when women start playing esports, they show preferences to follow the most popular esports games. However, it is inevitable to mention that Chinese video game history and related policies are notable influential elements to understand the responses of women participants in this research. The development of video games in China has experienced a difficult time from 1987 to 2014 due to historical and political reasons. This period highly limited the development of console game in China and digital games have been reported to be 'electric heroin' for teenagers by Chinese media. Consequently, from a cultural perspective, the Chinese public established a considerably conservative attitude to video games. Meanwhile, players had limited opportunities to establish their engagement with video game and video game culture. I described this period as a 'fault line' in Chinese game history in this thesis. This unique background has influenced women's attitudes towards esports and deterred them from playing at the early stage of esports development in China.

Moreover, when it came to the era of online games, this unique background has largely driven the esports culture in China to link to masculinity. Specifically, the special period mentioned above made it less likely for a Chinese family to have eclectic equipment for entertainment, such as console devices. When online games, such as esports games, emerged, the majority of players can only play these games at public spaces, such as Internet cafés. However, plying at public spaces has been identified as a kind of masculine activity. This phenomenon largely influenced Chinese women's participation in esports. As the majority of women participated in this research reported they start to play video games after they went to the university, or even after the emergency of smartphones and tablets. For a long time, playing esports in China was mainly a man's thing. This historical reason largely deterred women from establishing their relationship with esports. Apart from providing finding to answer Research Question #1, this finding further suggests that it is important to consider regional backgrounds and histories when game studies involve fieldwork.

Apart from difficulties women met in participating in esports, Chapter 5 presented elements that stimulated women's participation in esports. Findings presented in this chapter mainly aim at providing answers to Research Question #2. Social interaction and communication have been revealed to be the most notable motivation for women to play esports. This reinforces existing arguments that suggest interaction with other players is the primary reasons that women play video games (Hayes, 2005; Yee, 2006). However, this research detected that social interaction and communication are also attractive for men. In fact, social function is an important function for current esports play. Even though there is a trend that women participants appear to be influenced by the element of social interaction to a larger extent than men, social interaction, as a motivation, is influential without obvious gender differences. Since this motivation has been particularly attached to women by a large number of previous game studies, this finding is important for further esports studies to comprehensively understand women. This research further detected achievement as a motivation for women esports player. In fact, both men and women appear to be stimulated by this motivation to a considerable extent. In the actual process, women show more interest in the overall ranking of achievement while men show equal interest in both the overall ranking of achievement and in-game skill improvement, such as game metrics.

The other notable motivation is the feeling of immersion and flow. This motivation is not novel for game studies but obtaining immersive experiences has rarely been associated with women. This research found that the majority of women esports player reported immersive experiences. Previously, having a certain level of in-game skill mastery has been highlighted as an important factor for players to obtain immersion in competitive video games (Qin et al., 2010). However, this research detected women participant who have a relatively low level of playing skills reported experiences of immersion. This increased immersion could be largely explained by the high level of real-time competitiveness with other players. This result illustrated that obtaining immersive experiences could be an important motivation for women to play esports. It also demonstrated that the balance between in-game skill mastery and the game difficulty level is not the only requirement for players to obtain immersive esports experiences. At the same time, it is still worth noting that women are more likely to report guilt after obtaining immersive experiences in playing esports. The feeling of guilt may negatively influence their further attendance in esports.

The last motivation presented in this thesis is the desire of obtaining career development. The kind of job-related opportunities associated with eSport was reported by women participants as an influential reason to play. Women in this research did not report this motivation as their initial motivation to play esports. However, they reported this motivation has stimulated the frequency for them to play to a large extent. What need to be noted is that this motivation has rarely been illustrated by current esports studies, even a wide range of game studies. The main reason is that the diverse development of esports, such as the esports online streaming, enables women to join the esports industry to a certain degree.

Taken together, these findings reflect women's motivations for playing esports are diverse. It is neither appropriate nor authentic to describe women esports player as only interested in social interaction and communication. Even though men and women appear to be stimulated by different motivations in different ways, it is important to keep in mind that women esports player have multiple motivations and preferences. Most importantly, these findings show that women are interested in competitive games, which is not in accordance with previous descriptions of competitiveness in video games as less attractive for women (Kim, 2017). Women in this research even show

their interests in playing esports games that involve a certain level of violence, such as the *PUBG mobile* (PUBG Corporation, 2018). What reflected from these finding is that the motivations for women to play esports are multiple and are dynamically changing.

At the start of designing this research in 2016, the attractiveness of mobile esports for women was not expected to become a central research theme. However, the fieldwork carried out from the end of 2017 to the beginning of 2018 pointed to mobile esports as a core phenomenon to understand women's participation in esports. In 2017, women who play *HoK* have outnumbered men (JiGuang Data, 2017). It has largely challenged the idea of esports as a male-dominated area. Under such background, I further explored women's participation in mobile esports in order to provide more information to meet the research aim. Chapter 6 discussed why women participants are more likely to play mobile eSport and how mobile esports solved difficulties women met in participating in esports. Findings presented in this chapter provided answers to both Research Question #1 and Research Question #2.

To understand women's participation in esports, I have to mention again that one of the most important ideas to keep in mind is that mobile esports should not be defined as a casual game. While the mobile device has previously been linked with casual games (Koivisto, 2006; Furini, 2007), women who play mobile esports are likely to be defined as casual players. Furthermore, because a large number of women concentrate on mobile esports, they are likely to be defined as casual players, which reinforces the stereotype of women as casual players. To keep the idea of mobile esports is not a genre of casual games, findings presented in Chapter 6 highlighted two notable research outcome. The first point is that features of simplicity, accessibility and portability appear to be three of the most influential elements for mobile esports to attract players. Among those three features, simplicity provides a comparatively easy learning curve for players. The feature of accessibility largely promoted women's engagement with game devices, in detail, smartphone is more accepted by women in this research as a kind of entertainment platform. Moreover, the feature of portability enables players to play esports games almost whenever and wherever players want. This feature is influential for both young men and young women due to it makes mobile esports matches the life in the metropolis.

The other notable finding is the trend of the younger generation in China appears to adopt mobile esports as a social platform rather than an entertaining platform. For the younger generation, which is the major user population of mobile esports, the meaning of mobile esports is complicated. This research proved that interaction with existing friends from the offline world is the most notable motivation for young players. Moreover, this research found that even players who stay in the same physical place choose to play mobile esports rather than other interaction methods, such as chatting. Some extreme cases show that players intend to get together just to play mobile esports. The boundary of playing online and offline is becoming vague in the context of mobile esports. From a cultural perspective, the development of mobile esports is influential. On one hand, its popularity has largely promoted the esports to be accepted by the public. Considering the unique game history in China, mobile esports has made the esports, a previous niche game genre, to be known and accepted by a larger number of women. On the other hand, the increasing number of women in mobile esports is challenging the idea of esports as a male-dominated field. The conflict between masculinity identity of esports and the increasing number of women is getting obvious.

Overall, findings presented in Chapter 4 to Chapter 6 illustrate elements that attract and deters women from playing esports. What is more important is that esports culture shows a strong masculine identity. Culturally, women are portrayed as less skilled casual players. The fact of the majority of women is concentrating on mobile esports further aggravates this stereotype. To a large extent, masculinity in the esports culture has created an unfair and gender-biased atmosphere. According to the fieldwork, men report positive attitudes towards women in playing esports. However, this research revealed that women experienced more gender discrimination and gender-based harassment than men: 35.87% of women respondents and playing experiences in esports are negatively influenced by gender discrimination and harassment. While the development of mobile esports games is rapid, the potential gender gap may occur in esports culture due to women's preference of mobile esports is worth to be noted.

Alongside women's participation in esports as general players, this work further discussed women's participation in professional esports, and, at large, in the esports industry. Findings presented in Chapter 7 provided answers to the Research Question

#3. As previous chapters illustrated, the masculinity of esports culture is an important element for understanding women esports player. Thus, to explore women's participation in the esports industry and the role of gender in this area provided meaningful information for this research to understand the masculine identity of esports culture from the top-down aspect. This research focused on three typical areas including professional esports play, esports online streaming and esports commentary.

This research detected that considerable and obvious gender gaps exist in professional esports play. The most typical finding is that men occupy a dominant position in professional esports play, particularly in the top-level of esports tournaments. This result shows a significant conflict with the increasing number of women in esports play. I would like to mention that this is not to say professional esports play is impossible for women. The emergence of women's championships is providing more opportunities for women to step into professional esports play. Even though the popularity of women's esports championships remains low compared with top-level esports championships, it is undeniable that the women's championship narrowed the gender gap in professional play and encouraged women's participation. To understand the gender gap in professional esports, the most notable finding presented in Chapter 7 is that professional esports show the strong feature of masculinity and created a highly unfriendly atmosphere for women professional players. Women who make efforts to participate in top-level esports tournaments face undisguised discrimination and hostile attitudes from men professional players. This thesis argues that this is because professional esports play is the representation of top-level skill mastery. In this area, men present hostile attitudes towards women to protect masculine hegemony in this field. The problem is, from a cultural perspective, while only men managed to present excellent performance on the stage of top-level of esports tournaments, it is inevitably for the stereotype of women are less skilled and casual esports player to be strengthened in esports culture.

Likewise, this research further detected features of masculinity in the area of esports online streaming. Different from the gender imbalance in professional esports play, this research found women's channels are popular in esports online streaming. I have to mention that the online streaming platform is one of the major methods for players to share high-quality game experiences with audiences. While women disappear in top-

level of esports championship, the popularity of women's channels attracted my attention. As presented in Chapter 7, if analysing the content in women's channels in esports online streaming, this phenomenon becomes easy to be understood. In detail, the core content in women's channels of esports is social interaction and entertainment, rather than the presentation of high-level in-game skill. At the same time, existing game studies reveal there is an objectification of women streamers in video game live streaming (Nakandala et al., 2017; Anderson, 2017; Ruvalcaba et al., 2018). In accordance with these findings, data from focus group interviews shows the trend that men watch these channels to ogle the women streamers. When they prefer to watch high level game performance, they are more likely to watch men streamers' channels. Considering that the majority of esports streaming audiences are men (NewZoo, 2017a; Influencer Marketing Hub, 2018), the popularity of women's channels is a reflection of the masculinity in the area of esports online streaming.

The similar gender gap was detected in esports commentary. Currently, online streaming is an important method for audiences to watch esports tournaments and esports commentary. However, in contrary to the popularity of women's esports channel, the total number of women in esports commentary appears to be small. Moreover, even though the total number of women esports players is increasing, the number of women commentators remains low. A particular case is the women commentator of TIs and Worlds from 2016 to 2019. During this period, the number of official women commentators of either TIs or Worlds has been hovering around 10%. In consideration of men dominance in professional esports play and the trend of satisfying men audiences' tastes in esports online streaming, the gender gap in esports commentary is unsurprising. Similar to professional esports play, esports commentary represents a comparatively high level of professionality in understanding of game rules and the game system. In other word, esports commentary should have a certain degree of professional knowledge of playing esports games. Thus, I argue the limited number of women commentators largely results from the masculine hegemony in professional esports play. What needs to be noted is that women commentators rarely report experiences of sexual harassment and gender discrimination. Certainly, this could indicate improving gender equality in esports commentary. However, considering the serious gender problem in both professional esports play and esports commentary, a more realistic explanation is that the small number of women commentators has not yet

threatened masculine hegemony in esports commentary. If more women attempt to take part in the esports commentary and their role in this area improves, it is possible that gender harassment and discrimination may appear in esports commentary.

Those findings clearly show the gender gap in professional esports play, esports online streaming and esports commentary. What reflected from gender gaps is the considerable masculinity in these fields. The masculinity in these fields influenced the role of gender in esports culture from a top-down scheme. Most importantly, these areas represent the high quality of in-game skill mastery. While esports is a kind of competitive online games and in-game skill mastery is a key point for players to take part in, the masculinity in these fields will strengthen gender stereotypes in esports culture. Moreover, professional play, online streaming and commentary are areas that most likely to be noticed by audiences within the esports industry. The role of gender among these areas can exert significant influence within a boarder context of esports culture. Consequently, the strengthened stereotype of women are casual players with weak in-game skill mastery may further influence women's participation negatively.

Implications and limitation

Findings presented in this thesis suggest that in general gender gaps in the field of esports could not be attributed to women are not capable to play complicate and competitive games. Meanwhile, as Yee criticizes (2008), the gender gap is not because the 'female brain' drives women to prefer feminine games specifically. Women have met diverse difficulties to take part in esports play. In this process, I argue the role of gender in esports culture, even in a wider context of gaming culture, is the key point to understand gender gaps in esports. To be specific, the esports culture appears to be a kind of masculine culture. This cultural feature has reinforced gender stereotypes which have long existed in video game culture. Women have been presented as marginalized, less skilled and casual players in esports. Even though a superficial look at the situation indicates that there is an increasing number of women in esports and that men hold a friendly attitude towards women, women appear to be more likely to report experiences associated with gender discrimination and sexual harassment. Those cultural

stereotypes and masculinity in esports culture are elements that may deter women from participating in esports.

Regarding the question of what attracted women to play esports, the premise of understanding women esports player is to understand they have multiple motivations to play. Previous research outcomes illustrate women have specific interests in social and interaction in playing video games. In line with previous studies, this motivation is notable for women who play esports. However, what previous studies rarely mentioned is that this motivation is notable for men likewise. Moreover, the other notable finding in this research is that women are interested in competition. This finding subverted the view of women as less likely to enjoy competitive games and more likely to enjoy stereotypically feminine games. Equally, even though women currently prefer to play mobile esports rather than PC esports, this phenomenon cannot be understood as evidence of women as casual gamers. Their interests in esports have shown that the existence of gender stereotypes in current video game studies to be an inauthentic picture of women. Furthermore, this thesis argues women's motivations for participating in esports are dynamic. Motivations and preferences may change along with women's participation. For instance, compared to men, excessive experiences of immersion are more likely to drive guilty feelings in women, thereby reducing the frequency of their participation in esports.

In recent years, the gender gap in esports has been narrowed by the rapid development of mobile esports. A large number of women are playing esports through smartphones and tablets. This phenomenon provides a new perspective for scholars to understand women who play esports games. Fundamentally, the notable increasing number of women in mobile esports play has challenged the idea of esports is a kind of masculine activity. Women's appearance in esports play has been noted and accepted by both industrial professionals and general players. However, the masculinity in esports culture was not really been challenged by women's notable participation in mobile esports. This is largely due to there is an inappropriate idea of mobile games are casual games. As discussed in Chapter 6, this idea has been mentioned by both scholars (Koivisto, 2006; Furini, 2007) and interviewees of this research. While mobile esports is likely to be linked to casual games, women who play mobile esports games are likely

to be defined as casual esports players. Thus, the increasing number of women in mobile esports may reinforce gender stereotypes in esports culture.

In addition, the strong masculinity detected in the era of professional esports strengthened the gender imbalance in esports culture. Women remain marginalized from professional esports play and esports commentary. At the same time, women appear to be particularly popular in esports online streaming. What reflected from those phenomena is complicate gender issues in esports culture. On one hand, even though the increasing number of women has had an impact on the perceived masculinity of esports, there remains strong masculine hegemony in the esports industry. To be specific, in areas include professional esports play and esports commentary, masculine hegemony is deterring women's further participation. While professional esports play and commentary represent the top-level of skill mastery in esports, women's absence in those fields will reinforce the masculine identity of esports culture. On the other hand, the popularity of women's eSports channel does not represent a narrowing down the gender gap in the esports industry. On the contrary, it shows the trend of objectifying women streamers, which further contributes to the masculinity in esports culture. Considering the increasing popularity of esports with both the young generation and women, it becomes vital and necessary to understand the role of gender in esports culture. While the esports culture remains to be a kind of masculine culture, its conflict with the increasing number of women will become more obvious and problematic. Since the amount of research of gender issues in esports is currently limited, this research is able to provide a fundamental understanding of gender differences in esports play and the role of gender in esports culture.

Most significantly, this research provided abundant primary data by adopting both quantitative and qualitative research methods. This is vital for esports research, which lacks well-developed theories and guidance. The research process is anticipated to provide useful information for further empirical research on esports player and esports culture. Moreover, these findings show considerable differences between playing esports and playing traditional video games. At the same time, the esports culture is different from traditional video game culture in terms of gender issues. This thesis has illustrated how existing game studies can provide guidance for esports research. However, esports should not be simply defined as a subgenre of video game and players'

participation cannot be understood simply through existing knowledge of video game players. Thus, I further argue it is necessary and important to carry out research that pays specific attention to the area of esports. It is urgent to recognise that women are important components of esports about whom both the industry and academic research lack authentic understanding.

What I would like to mention at the last point of limitations of this research. One of the most apparent and inevitable limitation of this study is the demographic feature of participants of this research should be noticed. In detail, the majority of participants in this research are Chinese. This regional feature of participants limits the universality of research findings in the broader esports context. Even though China is one of the most notable countries for esports development, China's individual game history and policies have uniquely influenced Chinese esports players. For instance, when considering difficulties that women face when playing esports, the cultural fault line as discussed in Chapter 4 may be less meaningful for understanding women esports player worldwide. However, from a practical perspective, this limitation has demonstrated the importance of taking regional game history and policies into consideration. For further esports research that involves fieldwork, this kind of regional feature is worth to be noted to carry out authentic and comprehensive research outcomes. The second limitation of the fieldwork is the limited number of women participants from the esports industry. However, this issue may be a reflection of the gender imbalance of the esports industry itself. In addition, considering the problem that interviewees may 'exaggerate or be reluctant to criticise their present employers' (Boyer, 2014, p.79), the limitation mentioned above is notable. By involving more women participants who work in the esports industry, it is anticipated that the influence of this limitation can be reduced in further research. The third limitation, which is a natural result of the aim of this research, is that this research pays overwhelming attention to women's experiences of gender inequality in playing. However, it is notable that men interviewees also mentioned experiences of discriminations. It is not clear whether these kinds of experiences are associated with gender.

This limitation invites a possible research direction for further esports studies. Exploring men's experiences specifically associated with their gender may present a

more detailed understanding of the role of gender in esports culture. This is particularly important considering the increasing number of women in mobile esports. Thus, for further research focusing on gender in esports, carrying out comparative studies may be an effective and reliable approach. Additionally, another potential research direction is the organisation of gender-based tournaments. As discussed in Chapter 7, all-women esports tournaments are appearing in China. However, whether this phenomenon is beneficial to narrow down the gender gap in professional esports play remains unclear. This research made efforts to discuss all-women esports tournaments by referring to the event organisation of traditional sports.

The problem is that limited empirical evidence can provide further understanding of the role of gender in esports culture. On the one hand, organising women-only esports tournaments may encourage women's participation in professional esports play at this stage. On the other hand, this phenomenon may reinforce the divide between men and women in professional esports play; it may further expand the gender gap in esports. Evidence collected from the fieldwork in this research project sheds limited light on this problem, but it should be noted by further esports research as an important aspect in understanding the role of gender in esports culture. Last but not the least, I would like to highlight that esports studies are more complicated than the picture I was able to provide in this thesis. What is presented by this thesis is an investigation of women's participation in esports. While the development of esports research is not fully established yet, this research has made an effort to provide an authentic picture of women's participation in the field of esports.

Appendix 1

Questionnaire of esports players' information and personal experiences.

Q1. What is your age?

> Under 18 years old
> 18 – 25 years old
> 25--30years old
> 31 -- 35 years old
> 36 years or older

Q2. What's your gender?

A. Men
B. Women
C. Prefer not to answer

Q3. What's your nationality?

> _____

Q4. What is the highest level of education you completed? (If you're enrolled in school, please indicate the highest degree you have received.)

A. Did not complete high school
B. High school graduate
C. Some college, no degree
D. Bachelor's degree
E. Master's degree
F. Doctorate.
G. Other _____

Q5. What is your current employment status?

A. Employed full-time (40 or more hours per week)
B. Employed part-time (Up to 39 hours per week)
C. Unemployed
D. Student
E. Retired
F. Self-employed (eg. House keeper)
G. Unable to work

Q6. What is your average monthly income after taxes during the past 12 months?

    A. No income
    B. Less than 2600 CNY
    C. 2,600 CNY --- 3,599 CNY
    D. 3,600 CNY --- 4,599 CNY
    E. 4,600 CNY --- 5,599 CNY
    F. 5,600 CNY --- 6,600 CNY
    G. More than 6,600 CNY

Q7. What is your marital status?

    A. Single
    B. Single but in a relationship
    C. Married
    D. Widowed
    E. Divorced
    F. Prefer not to say

Q8. What is the esports game you played most often?

_____

Q9. What are the key motivations for you to participate in esports? (Multiple choice)

    A. Improve in-game skill and get the sense of achievement.
    B. Just to kill the time.
    C. For leisure and entertainment.
    D. To make new friends and enjoy the time with them.
    E. To earn profits from playing.
    F. Others. _____

Q11. Do you have stabilized companions playing games with you?

    A. Yes, I do.
    B. No, I don't.
    C. Prefer not to say.

Q12. How often did you play esports Games during the past three months?

    A. I didn't play.
    B. I rarely played.
    C. I played sometimes.
    D. I played quiet often.

Q13. Do you watch esports online streaming?

A. Yes, I do.
B. No, I don't.

Q13 How often did you watch esports online streaming during the past three months?

A. I didn't watch.
B. I rarely watched.
C. I watched sometimes.
D. I watched quiet often.
E. I watched every day.

Q14. Have you ever received sexual harassment while playing esports Games? (Including text, voice or play behaviour in games)

A. Yes, I have.
B. No, I haven't.
C. Prefer not to say.

Q15. To what extent do you agree that the skill mastery of esports is too hard for you?

A. Strongly disagree
B. Disagree
C. Neutral
D. Agree
E. Strongly agree

Q16. To what extent do you agree that esports Games are **NOT** suitable for women?

A. Strongly agree.
B. Agree.
C. Neutral.
D. Disagree.
E. Strongly disagree.

Q17. Do you have experience playing esports with women?

A. Yes, I do.
B. No, I don't.
C. Prefer not to say.

Q18. Do you wish to have women in your team in playing esports?

A. Yes, I do.
B. No, I don't.
C. It doesn't matter to me.
D. Prefer not to say.

Q19. According to your experiences, do you feel it is harder than usual to win a game if you have women in your team?

    A.　Yes, I do.
    B.　No, I don't.
    C.　It doesn't matter to me.
    D.　Prefer not to say.

Q20. Have you ever experienced interactions outside the game with your in-game teammates?

    A.　Yes, I do.
    B.　No, I don't.
    C.　Prefer not to say.

Appendix 2

Interview with industrial professionals

- **Fang, Jie**

  o NetEase Games

  o Date: 17th, March 2018.

  o Interview method: E-mail

  o Bio: Jie Fang is a staff of the Department of mega-data analysis platform at NetEase Games. This platform mainly concentrates on analyzing data of players. He has worked in this position for three years. He is familiar with user data and ca provide this research understanding of women's requirement in playing video games.

  o Core content:
  The sex ratio in current MOBA games in China and how does it occur.
  The sex ratio is significantly different between mobile MOBA games and PC   MOBA games.

- **Jiang, Xiaodong**

  o Luyang Technology (founded in 2016. Shanghai, China)

  o Date and location: 22nd December 2017. Shanghai, China.

  o Interview method: In person

  o Bio: Xiaodong Jiang is the co-founder and CEO of the Luyang Technology Co. Ltd. This company is currently cooperating the development of Ragnarok Online (Gravity, 2002) with the Tencent. Jiang has become an esports player for more than ten years and has worked in the video game for 7 years. He is particularly interested in mobile game development.

- o Core content:

  The development of Chinese Gaming market.

  The development of professional women esports player.

  Potential problems of the development of esports in the further.

  The relationship between motivation of social and participation in esports.

- **Li, xiaofeng**

  - o Former professional esports player (2000 to present)
  - o Date: 28th, December 2017.
  - o Interview method: E-mail
  - o Bio: Xiaofeng Li is one of the most famous Chinese professional esports players. He started his career in early 2000s. Li has achieved a considerable amount of prize among esports offline leagues in the category of WoW 3. Those achievements include: the champion of WCG China in 2005 WCG Global 2005, the second runner up of International Electronic Sports Tournament (2006), the second runner up of WCG Global 2007 and so forth. He has worked as worked as a professional esports player for more than ten years. He experienced emergence and development of professional esports play and have deep understanding of professional esports.

  - o Core content:

    The development of Chinese esports online streaming.

    How esports online streaming influences the professional esports players.

    Why women rarely appeared in professional esports area.

- **Liu, Yifei**

  - o Tencent Company
  - o Date and location: 17th, January 2018. Chengdu, China.
  - o Interview method: In person
  - o Bio: Yifei Liu is the Event Operation Manager of the *LoL* in the area of Sichuan Provence, China. He started to work in this industry since 2014. He

has abundant experiences of different levels of offline leagues of *LoL*, such as regional leagues and leagues for performance. He is an esports player for more than 10 years.

o Core content:

Core features *LOL* attract more women than Dota2.

Women position in esports industry.

The imbalance of sex ration in both esports market and industry.

- **Niu, Jian**

  o Luyang Technology (founded in 2016. Shanghai, China)

  o Date and location: 2nd, January 2018. Shanghai, China.

  o Interview method: In person

  o Bio: Jian Niu is working with the Luyang Technology. He is in charge of interactive design. Niu has worked in the game industry for 5 years. Before he comes to the Luyang Technology, he was working at NetEase Games (founded in 1997). His experiences of working in the game industry enables him to have deep understanding of Chinese computer gamers.

  o Core content:

  How esports meets the needs of social and communication in mobile MOBA games.

- **Ouyang, Zinuo**

  o Guangzhou Duoyi Network Technology Co., Ltd. (founded in 2006)

  o Date and location: 24th, January 2018. Chengdu, China.

  o Interview method: By phone

  o Bio: Zinuo Ouyang is a game developer works at uangzhou Duoyi Network Technology. He has worked as a game developer for more than 3 years. He mainly works on MMORPGs. At the same time, he is a fan of both Dota2 and

HoK. His experiences of developing online games enable him to provide understandings of why players play esports.

o Core content:

Women's request in participate in esports.

How does esports satisfy women?

Women's participation in esports industry.

- **Ru, Qinlin**

    o NetEase Games

    o Date and location: 8th, January 2018. Chengdu, China.

    o Interview method: In person

    o Bio: Qinlin Ru is the Interaction Design researcher at NetEase Games. His work is highly associate with understanding players' requirement of playing online games. His experiences help him to provide this research information and understanding of requirements of women who play esports.

    o Core content:

    Women's requests in participate in esports comparing to men's.

    To what extent does esports satisfied women and how does it happen?

    Gender stereotype in current Chinese esports culture and further development.

- **Ting, Da**

    o Tencent Company

    o Date: 15th, January 2018.

    o Interview method: E-mail

    o Bio: Da Ting is the event operation manager works at the branch of Honor of Kings, Tencent Company. He has worked in this position for one year and he used to be a City Tournament manager of *LoL* in China. He is familiar with esports offline tournaments and has experiences of the development of mobile

esports. His current work provide him lasts information about mobile esports offline leagues.

- o Core content:

  Core features attracted women in mobile esports games

  Professional women esports player in mobile esports games.

  Further development of mobile esports in attracting women.

- **Zhu, Linyan**

  - o Team leader of Team Shining Love (founded in 2000)
  - o Date and location: 4th, January 2018. Shanghai, China.
  - o Interview method: In person
  - o Bio: Linyan Zhu is the team leader of Team Shining Love (TSL). TSL was founded in 2002. It is one of the earliest women professional esports teams in China. This team is focusing on the game of *Counter-Strike* (*CS*, Valve Corporation, 2000). This team has attended the WCG in 2003 in the category of *CS*. As the leader of women professional esports team, Zhu has abundant experiences of esports leagues as well as understanding of gender issues in professional esports play.

  - o Core content:

    The difficulties for women to participate in professional esports.

    The current women esports teams and their core aims.

- **Zhou, Jin**

  - o *ImbaTV* (founded in 2014. Shanghai, China.)
  - o Date and location: 29th, December 2017. Shanghai, China.
  - o Interview method: In person
  - o Bio: Jin Zhou is one of women esports live streamer working at *Imba*TV, an esports event organizer, studio and esports video production company in

China. Jin has her own channel on *Douyu* (2014). She works as an esports commentator and journalist from 2014 to present. She has experiences of interviewing professional esports players and has abundant experiences of commentating esports offline tournament.

o Core content:

Women working in esports industry.

Gender issues in esports commentary.

Appendix 3

Question Guild of Focus Group Interviews

Part A. Cognition and acknowledge of esports

- What are the esports games you participate most often?
- How do you think esports differs from other computer games?
- How do you come to the esports you participated?

Part B. Preferences and motivations/dislikes

- What do you think are the things attracted you to play esports?
  (How do you enjoy about esports?)

- What are the challenges/difficulties you met in participate in esports?
- What are the elements that you don't like in participating in esports?
- Do you think it is harder to play esports than to play other computer games?

Part C. Accompanies and cognition of gender issues in esports

- Do you prefer to play alone or with friends? Why?
- Where and how did you find these friends?
- Do you think esports is a men dominated field?
- What words do you associate with the term 'women esports player'
- Do you think your women friends are willing to participate in esports? Why ?
- As women esports player, is there anything you experienced particularly? (women group only)

Part D. Identity, engagement and skill mastery

- What do you think an esports player is? To what extent do you think you are an esports player?
- Besides the game itself, do you participate in activities associated with esports?
- Do you participate in esports online streaming? Why or why not?
- Can you talk about the main methods you adopted to improve your esports skill mastery?
- Do you think there is an imbalance of skill mastery between men and women?

Is there anything else you would like to discuss?

Appendix 4

Consent Form of fieldwork

CONSENT TO THE USE OF DATA

University of Glasgow, College of Arts Research Ethics Committee

I understand that <u>The Role of Gender in Chinese esports Culture: an empirical research of women's participation in esports in China</u> (Peng, Yun)is collecting data in the form of <u>taped in-depth interviews, taped focus groups and completed questionnaires.</u>

for use in an academic research project at the University of Glasgow.

The core objective of this research is to explore the intertwined relationship between eSports culture and women's motivations, attitudes and behaviours in participating in eSports. To meet this research target, the field work in this study will adopt in-depth interviews, focus interviews and questionnaire. The questionnaire in this research is mainly focusing on collecting fundamental demographic data and basic personal experiences of eSport players. The in-depth interviews are designed to gather specific opinions towards women eSport players from a specific person from the eSports industry. The total amount of in-depth interview will be around 10 to 12 and the interview formats including both in person and by Skype. The focus groups are designed to investigate two research questions. 1). the difficulties women met in participating in eSports and the strategies they adopted. 2). By investigating the interaction between in-direct players and the eSports online streaming community, it is anticipated to find out the reasons that women participate eSports indirectly and their attitude of participating in eSports directly.

I give my consent to the use of data for this purpose on the understanding that:

- ♣ All names and other material likely to identify individuals will be anonymised unless the participants permit this research to show their information.
- ♣ The material will be treated as confidential and kept in secure storage at all times.
- ♣ The material will be destroyed once the project is complete.
- ♣ The material will be retained in secure storage for use in future academic

research
- ♣   The material may be used in future publications, both print and online.

Signed by the contributor<u>:   Yun Peng   </u>   Date: 18/10/2017

Signed on behalf of the contributor (i.e. parent/guardian in case of a person under 18)

_____   Date:

Ludography

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Glossary

APM	Actions Per Minute
CEO	Chief Executive Officer
ESA	Entertainment Software Association
EWG	International Electronic Competitive Women's Club Grand Prix
FPS	First-person Shooter
KDA	Kills, Deaths and Assists
LCL	League of Legends Continental League
MAU	Month Active User
MMORPG	Massively Multiplayer Online Role-playing Games
MOBA	Multiplayer Online Battle Arena
NBCIF	Ningbo China Cultural Industries Fair
NES	Nintendo Entertainment System
PC	Personal Computer
RPG	Role-playing Games
TI	the International
UGC	User-generated Content
WCG	World Cyber Games

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