Alienation of Digital Labour on Online Games among College Students in China

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Abstract

In the internet era, online games have become an important industry and an essential tool for leisure, socialisation, and self-actualisation. However, this appearance obscures the economic and commercial attributes of online games. Game companies rely on players to add value to their products through a digital capital operation model. In China, college students, the main audience of online games, are embedded in the game industry chain for digital labour and become unpaid producers. This study employs questionnaires and interviews to investigate college students who play online games. It situates digital labour in China's economic and social context to investigate college students' alienation from online games. The results show that players ostensibly enjoy leisure and entertainment but are reduced to free labour for the gaming platform. Under the rules of the gaming platform, players lose control of sociality, control of platform, control of data, and profits, and the behaviour of playing online games is eventually alienated into digital labour. This alienation has also produced a series of adverse effects, such as physical and mental health damage and game addiction.

Keywords: *digital labour; alienation; online games; qualitative analysis.*

1. Introduction

Since the development of Internet technology, online games have provided a platform for entertainment, leisure, and socialising (Liu & Chang, 2016; Montag, Schivinski & Pontes, 2021), and has become a popular activity for teenagers and young adults (Mun & Lee, 2022). In 2022, the global gaming market is worth about $200 billion, with about 3.2 billion users (GPC & CGIRI, 2022). Among them, China's game market is worth around $38.5 billion with an estimated 664 million users (GPC & CGIRI, 2022). China occupies an essential position in the global game industry with about one-fifth of the players and about one-seventh of the market size (GPC & CGIRI, 2022). In China, mobile games dominate the market, it has grown eightfold for seven consecutive years since 2014. In 2022, the actual sales revenue of the mobile games market accounted for 72.61% of the total revenue in China's game market. As of June 2022, the number of online game users in China reached 552 million, accounting for 52.6% of all Internet users (CNNIC, 2022).

Nowadays, Chinese college students who grew up with online games, have been integrated into their lives (Li, 2022). When comparing mobile games and other gaming platforms the number of college players in online games is enormous. Taking the mobile

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game King of Glory as an example, the proportion of college students is 24.5%. The number of college students greatly exceeds the combined numbers of primary and middle school students, accounting for 21.8% of the total number of gamers (iiMedia Research, 2020). Another example is that on November 7, 2021, the "EDG Team" from China (EDWARD GAMING is a Chinese esports club) won the championship trophy of League of Legends (LOL) S11 Global Finals. As the tournament was conducted in the early morning, the disturbance created by its supporters on the campus caused a public outcry. The situation was heavily discussed and debated throughout multiple media platforms in China (Li, 2022). These two empirical instances indicate that online gaming amongst college students is currently a significant phenomenon that requires further investigation.

The function of online games can explain the attraction of online gaming to college students as a form of decompression and relaxation approach after facing the burden of work and learning pressure. Not only that, immersing in online gaming activity provides the students with a sense of achievement and completion, which attracts them to continue playing (Sahi & Bhagat, 2019). In the recent development, the online gaming industry in China has generated the possibility for a new form of working endeavour. The integration with the social industry has opened up new social occupations and provided new jobs to potential graduates. For example, game designers in online game companies, video game streamers, Esports players, etc. Many college students even hope to enter this industry in the future (Tian, 2020).

However, online games have a variety of adverse effects, including the deterioration of physical condition (Mustafalu et al., 2018), game addiction (Mustafalu et al., 2018; Triberti et al., 2018; Kharisma, 2020), and decreased academic performance (Van Den Eijnden et al, 2018; Rahayu et al., 2021). These adverse effects have been interpreted by scholars as the consequences of alienation. The Internet has changed the production mode of human beings (Terranova, 2000). The essence of users' use and satisfaction is transforming people into 'digital labourers' through the operation of technical codes and people's dependence on technology (Li, 2019). Game players become unwitting producers of profits, used to realise capital appreciation, and their behaviour is alienated into digital labour (Fuchs, 2014; Terranova, 2000; Krüger & Johanssen, 2014; Ahmad et al., 2021; Saha, 2021).

The idea of digital labour has its roots in the audience commodity theory (Smythe, 1977). According to Smythe, advertisers fund the operation of the medium; the medium provides the audience for the advertiser, and the audience's watching, and hearing becomes a kind of labour because they create surplus value for the advertiser by consuming the advertising information and buying the goods. However, they do not get compensation for this labour (Smythe, 1977). Then, the Internet brings audience research into a new context. Just as it was supposed that the Internet had expanded audience initiative, some academics discovered that the Internet was inexorably falling into the cycle of selling users as commodities to advertisers (Wasko, 2005). Therefore, audience commodity theory resurfaced, and scholars began to employ digital labour to stress online audiences' usage behaviour (Fuchs, 2014; Scholz, 2012; Terranova, 2000; Brown & Quan-Haase, 2016).

Alienation can be defined as humans not controlling fundamental aspects of their lives (Marx, 1844). In the economy, alienation can refer to the non-control of labour-power, the objects of labour, the instruments of labour, and the products of labour (Fuchs 2014, 349). The alienation of the online game industry is manifested in the fact that online games, as human creations, not only do not have a positive effect on the subject but gradually control the subject's thoughts and behaviour (Wu, 2021). How to correctly understand and overcome the alienation phenomenon of online games has become a significant practical problem to be solved urgently today (Ou & Yan, 2022).

In China, online games have become an essential element affecting college students' learning, life, and socialisation process (Hu, 2019). However, most academic studies focus on urban youth (Paakkari et al., 2019; Liu et al., 2021; Postigo, 2017; Febriyanti & Susan, 2021), and lack of investigation on college students. Also, the time students spend at university is crucial to their maturation, and the developmental focus of this period is reportedly centred on developing social skills (Hong & Jeon, 2017), this will be what they need as adults (Lee et al., 2011). If they become overly addicted to online gaming, this will be detrimental to their future career development (Li, 2022). Then, there are benefits to be gained from studying the online gaming behaviour of college students in the Chinese context. Some studies have shown that many Chinese universities provide media literacy education to students, guiding them to play online games in a controlled manner to protect their physical and mental health (Liu, 2021). At the same time, some Chinese game companies have set up anti-addiction systems, whereby players who are online for more than seven hours are forced to go offline (Tian, 2020).

Also, in the process of playing online games, the original entertainment purpose disappeared for some college students, and they are gradually in a state of dissatisfaction (Hu, 2019). Unknowingly, they are brought into the game industry chain by the game companies and generate a lot of surplus value for the game companies (Kücklich, 2005; Qiu, 2019; Fuchs, 2014). However current research examining online game players from a labour perspective is still in its infancy, although a few scholars refer to the emergence of digital labour and e-alienation (Fisher, 2015; Krüger & Johanssen, 2014) in previous studies. The benefit of this study is to expose the alienation of online games so that college students have a clear understanding of online games, which is conducive to their physical and mental health. Therefore, it is necessary to study the alienation of digital labour on online games among college students in China.

In summary, the literature on online gaming has typically focussed on player motivations and has been dominated by the positive aspects of gaming, such as reducing stress and providing job opportunities. The current study addresses this gap in the field of research by further exploring the negative effects of online gaming, revealing some of the negative experiences and potentially harmful tendencies associated with gaming, such as deterioration in physical condition, gaming addiction, and reduced academic performance. Some communication scholars have explained these negative impacts from the perspective of digital labour by arguing that the act of playing games is alienated into digital labour. To further explore the topic of digital labour among gamers, Chinese college students are selected as the respondents, in-depth interviews are employed to investigate online games and collect relevant data. Therefore, the main objectives of this study are as follows.

(1)   To identify the current situation of playing online games among Chinese college students.

(2)   To analyse how playing online games is alienated into digital labour among Chinese college students.

(3)   To discuss the impacts of this alienation on Chinese college students.

The significance of this study is theoretical and practical. In theory, it supplements the empirical case of digital labour theory and tries to analyse online gamers' behaviour from a new research perspective. In practice, in this study, on the one hand, college students who play online games easily indulge in games due to their lack of self-awareness. This study can remind them to stay awake in games, and on the other hand, warns those online game companies should develop user resources and raise awareness of social responsibility.

2. literature review

2.1 Digital labour and online games

As a kind of audience, the digital labour of game players has also attracted the attention of many scholars. Some scholars refer to the digital labour of online game players as "playbour" and argue that they contribute much of their time to creating value for game companies (Kücklich, 2005; Sotamaa, 2007; Qiu, 2009). As early as 2005, Kücklich (2005) studied the digital labour of online game players and created the proper term "playbour". He believes gamers invest a lot of socially necessary labour time in the game, which creates a huge profit margin for the game company, but they do not get any financial reward, repeating their labour for free. Then, Sotamaa (2007) took the playbour proposed by Kücklich as the research object. He elaborated on the content strategies used by the game industry to motivate and persuade players to modify games for the benefit of game companies and further explored the players' production mode and production process. Qiu (2009) also holds the same view. He believes that these players spend much time in the game, unconsciously attracting a large number of users for the game company, creating more content, and improving the game service; consuming a significant amount of time is a labour process.

Other scholars argue that the digital labour of online gamers blurs the line between play and leisure, "play is work" (Goggin, 2011; Scholz, 2012; Fuchs, 2014; Yee, 2006; Lund, 2014; Wang, 2015). Goggin (2011) lists many forms of "work" and "leisure" merging and mentions that Chinese "gamers" work hard in video games without any financial reward, blurring the line between play and work. Scholz (2012) puts gamers' labour into the category of digital labour. In the digital era, it is increasingly difficult to distinguish between game, consumption, and production. Also, Fuchs (2014) believes that play itself is entertaining, and it has become a productive labour, creating surplus value in the system of capitalist exploitation. Another scholar, Yee (2006), points out that video games are essentially a platform to train us to be better game workers. The work performed in a video game is increasingly like that performed in a business company. Based on classifying the concepts of game and work, Lund (2014) explains and criticises the new concept of the integration of game and labour, "play-work." Wang (2015) develops a hybrid framework to analyse the relationship between play and labour, concluding that the line between labour and entertainment is now blurred.

In addition to unpaid players, professional players are also a group that scholars focus on, such as the study by Nakamura (2012), professional players play more games to earn a living by spending their leisure time in the game, have lost the original taste, so professional gamers also become workers in the virtual economy.

2.2 Labour alienation

Since the post-industrial era, the Frankfurt School has advanced the development of alienation theory by studying the alienating effect of the cultural industry and the mass media on the subject's ideology. Marcuse (1964) argues that the mass commercialisation of art in industrial society has made it an instrument of a repressive society, leading to a one-dimensional development of people and culture. Later, Habermas's view of "technology as ideology" (1968) goes further, stating that the extent to which the objects and environments we create ourselves become our masters is something that Marx failed to foresee. Lukács' (1975) phenomena of 'objectification' and 'objectified consciousness,' based on the theory of alienation, emphasise that the commodity in capitalist society has gradually penetrated every aspect of social and personal life, as well as economic, social, and ideological aspects, as a dominant force over society.

In the digital era, digital labour still exists in alienation (Fuchs, 2014; Andrejevic, 2011; Ou & Yan, 2022). Today, people surf the Internet Day and night. Online games, online communities, online chat, and online video fill people's lives, especially with the

increasing popularity of the Internet and social media among young people (Mythily et al., 2008; Valkenburg & Peter, 2007), the combination of labour alienation theory, digital labour and play labour research has new theoretical research value and practical significance. A few scholars mentioned the phenomenon of digital labour and electronic alienation in the use of social media (Fisher, 2012; Krüger & Johanssen, 2014) to varying degrees.

Taking Facebook as an example, Fisher (2012) examines the labour of audiences on social networking sites. To combat alienation, Facebook users must communicate and socialise, exacerbating their exploitation. Moreover, for Facebook to exploit its users' work, it must facilitate their de-alienation. Krüger and Johanssen (2014) create a scenario in which alienation arises not simply based on the users' symbolic production on a given corporate platform; instead, they present the feeding back of the produced and double-used data as a decisive part in the dynamics of alienation. Nygren and Gidlund (2016) reflect on the alienation phenomenon in digital culture by comparing the differences between "machine design" in the context of industrial technology and "digital cultural design" in the digital technology environment, starting from alienation theory and Foucault's view of power.

Concerning the online games industry, Taylor et al. (2015) explored the play practices of EVE Online industrialists, who believe that players are viewed as resources by online games capitalists, and players' work might be doubly alienated: appropriated both by other corporations toward the conspicuous consumption, and by CCP toward the cultivation of capital through more subscription fees and, crucially, through intellectual property enhanced by the immaterial labour of all players.

2.3 Online games and young people

Scholars have mostly discussed the complex effects of online games on youth psychology, academic performance, physiology, social behaviour, and other multiple dimensions (Barr and Copeland-Stewart, 2022; Van Den Eijnden, 2018; Rahayu et al., 2021; Soylu-Konak et al, 2022). Barr and Copeland-Stewart (2022) investigate how games were used during the COVID-19 pandemic, selecting 781 players and focusing on their play habits and their impact on player health. The findings find that online gaming reduces anxiety and stress. Also, it highlights the sociocultural significance of video games and the potentially positive nature of their impact on well-being.

Van Den Eijnden (2018) examined the impact of gaming and social media among 538 adolescents aged 12-15. The findings suggest that gaming predicts decreased psychosocial well-being and academic performance in adolescents. Rahayu et al. (2021) conducted a bivariate correlation analysis to test the learning motivation of middle school students in Bandar Lampung. The results suggest a relationship between the two. In another study, a sample of 316 online game players was selected to explore the possible predictors of aggression, alienation, and emotional intelligence based on online game habits and perceptions. The results suggest that the observed relationships are based on players' perceptions of the game and their degree of social interaction within the game rather than just exposure to online gaming (Soylu-Konak et al., 2022).

Balakrishnan and Griffiths (2018) explore the relationship between online mobile game addiction and the purchase intention of online mobile games, involving 430 students from two major Indian universities. Results show that there is a positive association between the two, but possible ethical issues arise. Sharma et al. (2021) collected data from 404 Clash of Clans players. The results show that players' acceptance and adherence to team norms are positively correlated with team commitment. The study provides novel insights into player gift-giving behaviour, which could allow game developers to boost revenue by increasing sales of virtual game items.

2.4 Theoretical framework

To investigate the labour alienation of online gamers among college students in China, this present study utilises a fourfold alienation model of digital labour on social media based on Fuchs' writing as a theoretical framework. Fuchs (2014) uses the four dimensions of alienation found in Marx's Grundrisse to sound out its scope on Facebook. The authors use broad, general categories, such as ownership, ideological coercion, instrumentalisation and commodification of data, to outline the functional character of online alienation (Krüger & Johanssen, 2014). Thus, users are alienated from themselves because they are coerced to use Facebook by way of peer pressure and a lack of viable alternatives (Fuchs and Sevignani 2013; Fuchs, 2014); users are alienated from "the instruments of labour" because they do not own the communication platform itself (Fuchs and Sevignani 2013; Fuchs, 2014); moreover, users are alienated from the "objects of labour" on Facebook—which the authors identify as shared representations of experiences—"through a legally binding agreement" (ibid, 259) that makes it possible for the platform owners to use them for economic purposes; and finally, users are alienated from the product of labour due to the peculiar divide between use-value and exchange-value of symbolic produce online: the "use-values that Facebook users create are at the same time commodities that Facebook offers for sale on a market" (Fuchs, 2014, p. 258).

Fuchs also points out that digital play workers on social media are objectively alienated from the control of sociality, the control of platforms, the control of what happens with the data of their online experiences and the control of the derived monetary profits (Fuchs, 2014). Figure 1 shows the alienation of digital labour on corporate social media.

Alienation from the product of labour:
Private control of monetary profit
(dual use-value, inverse commodity fetish)

Alienation of labour power
by social violence: Coercion
by isolation and social
disadvantages

Alienation from the means of production
Object of labour: Instruments of labour:
Human experiences   private ownership of
come under capital's   platforms, social media
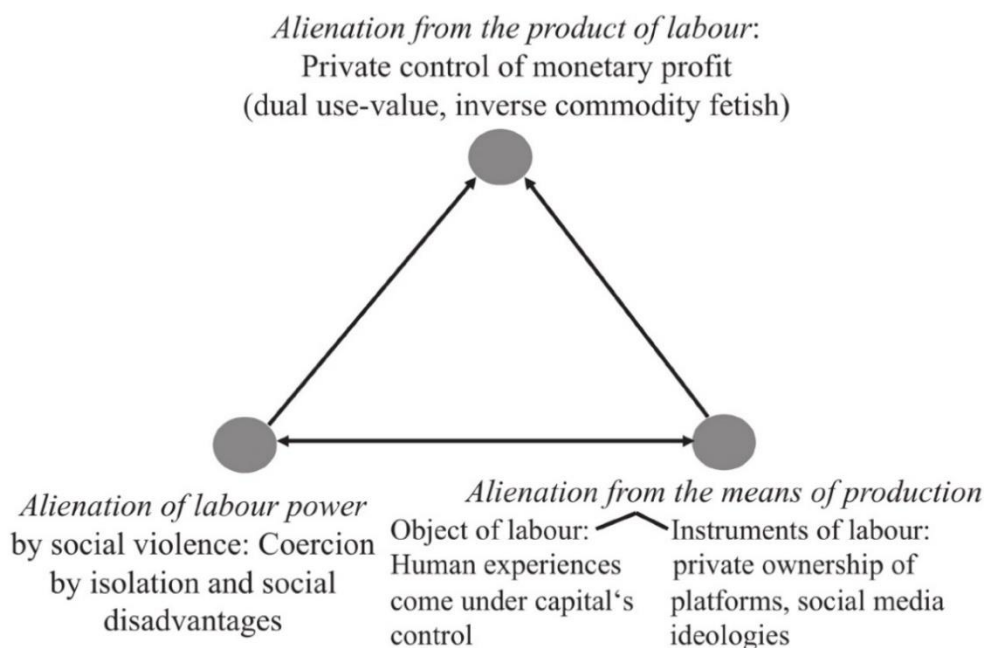control   ideologies

Figure 1. The alienation of digital labour on corporate social media (Fuchs, 2014, p. 260)

In summary, the literature review shows that there is a considerable amount of research on the digital labour of online game players, but the following research gaps still exist. First, regarding the digital labour of gamers, there is more focus on its exploitative dimension and less on the alienation of users and their labour. Secondly, one noteworthy fact is that much of the literature on labour alienation still uses Marx's theory of alienation, which was born in the 19th century. This system of thinking holds that the

economy is a simple, monolithic system and that digital labour is no longer suitable for the more complex digital economy of the 21st century (Garnham, 1990). Although a few scholars have applied Fuchs' digital labour theory to analyse the labour alienation of social media users, there is still a lack of empirical analysis of this theory among online game players. Thirdly, college students account for a large proportion of online game users, there have been previous studies on the "digital labour" phenomenon among urban youth, including preschoolers.

3. Methods

3.1 Research design

The main aim of this study is to investigate the current situation of playing online games among Chinese college students and analyse how playing online games has alienated digital labour among Chinese college students from four aspects, namely, alienation of labour power, the alienation of labour instrument, alienation of labour object and the alienation of labour product, and to explore the influence of this alienation phenomenon. Designed as a qualitative study, this study considered Chinese college students' perceptions and experiences of online games through in-depth interviews.

3.2 Participants

The participants were 15 college students from different regions of China, all of whom enjoyed playing online games and were between the ages of 19 - 22. All the participants were from Zhengzhou City, China. Two-thirds of the participants were selected to take part in a written interview, with the remaining participants evenly split between audio or in-person interviews. Table 1 provides more information.

Table 1 Basic information about the Participants

Number	Gender	Age	Grade
01	male	20	Sophomore year
02	male	21	Junior
03	female	19	Sophomore year
04	female	19	Sophomore year
05	female	21	Junior
06	male	22	senior
07	male	21	Sophomore year
08	male	22	senior
09	female	22	Junior
10	male	21	Sophomore year
11	male	22	Junior
12	male	20	Sophomore year
13	female	22	senior
14	male	21	senior
15	female	22	senior

3.3 Procedure

As this study used a qualitative research approach, a purposive sampling technique was used to select the population for this study. Participants must be current Chinese college

students and enjoy online games. Informed consent was obtained, and individuals indicated how they wished to be interviewed and their availability. A variety of interview methods (WeChat video or audio, or written) were provided for convenience. WeChat is a contact method that people in mainland China are used to using. For example, written interviews were available if participants did not have access to a microphone or audio equipment, or if they were nervous about speaking aloud. All interviews were conducted privately and recorded with the participants' permission. Private interviews encouraged more depth and personalised responses.

Fifteen semi-structured interviews were conducted from March - June 2023. Each interview was guided by 14 open-ended questions from three authors (Dongke Pan, Ammar Redza Ahmad Rizal and Shahrul Nazmi Sannusi). They covered the experience of the game, perceptions and impact of digital labour alienation. All interviews were conducted by one of the authors (Dongke Pan). The oral interviews took approximately 20 minutes, while the written interviews took 60 minutes.

 3.4 Analysis

As all interviews and transcription were done by Dongke Pan, the researcher was immersed in the data collected. This allowed for initial identification coding to begin and ensured that data saturation was achieved before recruitment was closed (Guest et al., 2020). All authors were college players, which allowed them to analyse and interpret the data from a young person's perspective. Following full anonymisation of all interviews, thematic analysis was used to analyse the data. This process followed the guidelines provided by Braun and Clarke (Braun & Clarke, 2006). After reading and familiarising with the data, separate frames were constructed using semantic code. After comparison, recurring patterns were clustered into larger themes and sub-themes within them.

To ensure internal homogeneity and external heterogeneity, the research team disaggregated and rearranged the themes during the review phase (Patton, 1990). This was to ensure internal consistency and that themes were clearly distinct (Patton, 1990). At this stage, the data was systematically recorded to make sure that the complete dataset was encompassed by the themes used and that the themes were also improved. Theoretically, we were interested in the experiences and insights of the 15 participants. Their accounts were therefore central to our analysis and were further explored and exemplified through the existing literature. The codes used to refer to the participants were: 'UG' for university student players and a number as an identification number (ID), i.e., UG01 was the first university student player to be interviewed.

4. Results

The researchers identified three main themes:(1) Demographic factors, (ii) Alienation of digital Labour and (iii) Impact of Alienation. Table 2 shows each theme, along with the associated sub-themes.

Table 2 Overview of identified themes and sub-themes

Themes	Sub-themes
Theme 1 Demographic factors	Age
	Grade
	Duration
	Place
	Type of games
Theme 2	Control of Sociality

Alienation of digital Labour	Control of platform
	Control of data
	Control of profits
Theme 3	Physical impact
Impact of Alienation	Mental impact

4.1 Theme 1: Demographic factors

The first theme considers issues associated with demographic factors, including gender, age, grade, duration of gaming, place of gaming and type of games. Of the fifteen interviewees, two were 19 years old, two were 20 years old, five were 21 years old, and the remaining were 22 years old. In addition, six university students were from the second year of university, four respondents were from the third year of university, and the remaining five respondents were from the fourth year of university.

In terms of gaming duration, Table 3 lists the answers. These respondents play games almost every week, although the frequency varies. Some heavy gamers even play games every day (UG08, UG10 and UG12). The more frequent answer was 3-5 times per week (UG01, UG04, UG06, UG09, UG11 and UG13). One other respondent reported being able to play more than 20 times a week. "I usually play games in the morning before dinner, in the afternoon before bed and before dinner, and in the evening before bed, and for standalone mini-games I'll play them three, four times a day (20+ times a week) ". (UG07)

Then, 10 of 15 college students chose the campus dormitory as the game space. Respondent UG06 gave three reasons, "Firstly, playing games in the dormitory will not be restricted and will not be blamed by family members; secondly, in the dormitory, you can hack with your buddies to achieve real-time communication and a better gaming experience; and lastly, playing a team game with a group is more meaningful to play". These reasons were more representative of all respondents. The number of respondents who tend to play games at home is 4 (UG02, UG08, UG11 and UG12). They think that playing games at home is more relaxing, as if there is a common reason, as UG 08 said "Playing games at home allows you to enjoy yourself when playing games, block out socialising and worries, clear your mind and free yourself from stressful life situations". Only UG14 prefers to play games in Internet cafes because he has higher requirements for gaming equipment that only Internet cafes can meet.

This study also investigated the types of games preferred by Chinese college gamers. The results of the survey show that mobile games are the most popular type of game, with 11 out of 15 respondents tending to play mobile games. Only three respondents preferred traditional PC (personal computer) games. There was also one respondent (UG15) who stated that he enjoyed both types of games. In addition, the most popular mobile game is Honor of Kings, and the most popular PC game is League of Legends and Minecraft.

Table 3 Current situation of playing online games among Chinese college students

Number	Game time	Game space	Game type
UG01	3 times a week	Dormitory	Mobile games
UG02	Holidays	Home	PC games
UG03	6 times a week	Dormitory	PC games
UG04	3 times a week	Dormitory	Mobile games
UG05	Once a week	Dormitory	Mobile games
UG06	5 times a week	Dormitory	Mobile games

UG07	20 times a week	Dormitory	Mobile games
UG08	Every day	Home	Mobile games
UG09	5 times a week	Dormitory	Mobile games
UG10	Every day	Dormitory	Mobile games
UG11	3 times a week	Home	Mobile games
UG12	Every day	Home	Mobile games
UG13	5 times a week	Dormitory	Mobile games
UG14	4 times a week	Internet cafe	PC games
UG15	7 times a week	Dormitory	Mobile games and PC games

4.2 Theme 2: Alienation of Digital Labour

This theme explores how playing online games is alienated into digital labour among Chinese college students. The analysis revealed that gamer behaviour is alienated into digital labour in four ways: control of sociality, control of platform, control of data and control of profits.

4.2.1 Alienation of labour power: control of sociality

Alienation of labour power refers to the fact that "humans have to let capital control their productive activities for a certain share of the day in order to be able to survive" (Fuchs, 2014, p. 254). In the Internet age, if people don't use the Internet, they will fall into social isolation (Fuchs, 2014). When asked "Is it because of the social need to play games, don't play games lack of common topics with people around you?", 11 respondents agreed. The following are some representative statements.

"Because so many people around me play this game, it is more of a conversation starter for social purposes" (UG01)

"If all my friends play games and I'm the only one who doesn't, I feel isolated" (UG 04)

"Only when you play games with people around you can you have a common topic" (UG05)

"Because of the limited topics of discussion and the fact that most of the people around you are almost always playing the game, you occasionally feel like you can't interject when they are discussing it, so you go ahead and get into the game yourself" (UG10)

"People around me are playing a game and I don't understand a thing when they talk about the game, I can only watch them get high and I can't get a word in, it's kinda a lost feeling, I might try to play it too in order to get myself on board" (UG13)

4.2.2 Alienation of labour instrument: control of platform

According to Fuchs (2014), The main instruments of labour on the internet are the platform and users' brains. On the one hand, users do not own and control the platform economically and politically (Fuchs, 2014). Specifically in the online gaming industry, economically, the gaming platform is privately controlled, and shareholders own the wealth. The few gamers who are paid for their labour are not shareholders either, and they are only paid sporadically. As UG01 said, "It is only a part-time job, and other players who needed coaching or playing with them paid them, not the gaming platform".

Politically, in addition, online game players do not have the power to determine the rules and design of the game (Fuchs, 2014). In the in-depth interview, an interviewee said, "We

see many advertisements in the game every day, and even after complaining to the platform, it has little effect" (UG02)

On the other hand, the alienation of labour instruments can be presented as control of ideologies, this means Internet companies try to spread positive and non-negative ideologies (Fuchs, 2014). In the online game industry, companies create virtual worlds that operate according to specific rules and significantly impact players' perceptions. To survive in the game world, gamers first need to recognise the rules and mechanisms of online games. After they recognise the operation logic of the game, they will be counteracted by the game, their behaviour will be controlled, their consciousness will be affected, and they will gradually lose themselves in the game process. In this process, players will examine their behaviour according to the logic of others and the game, resulting in alienation, which is also reflected in the interview.

> "In a game, you must follow the rules of the game. Otherwise you cannot play smoothly. I have to adapt to different rules when playing different games, and sometimes I am influenced by the game concept" (UG01)

> "I feel that I am affected by games. I feel empty and have a lot of negative emotions after playing games. Sometimes I even use the logic of games to view the real world, which is strange" (UG05)

> "I value the game more for the confrontation of the characters, and the button mashing. Segment upgrades are also an aspect of the game that I I find appealing to me, as the leaderboards if ranked high, give the impression of being someone who has a talent for the game as well'' (UG10)

4.2.3 Alienation of labour object: Control of data

Gamers must agree to the privacy policy and terms of use when they sign up for a gaming platform. These documents give gaming platforms the right to use all their experiences for financial purposes, and users have no control over how and how their online activities are used for financial purposes. In other words, Internet platforms have the right to monitor all the activities of their users and use the data for economic purposes. The object of the player's labour is alienated through these legally binding agreements (Fuchs, 2014). 10 of 15 respondents thought their privacy might have been compromised; when they lose control of their data, they cannot stop the platform from serving them ads. While the other two thought it had not. The following are some representative statements.

> "After playing King of Glory, other online platforms often push game videos and game skins, which violates privacy to some extent" (UG 01)

> "I feel like the game platform will give away my mobile phone number" (UG 03)

> "It feels like privacy has been leaked, such as ID, name, cell phone number" (UG 04)

> "Anyone who has signed up for an account should have their data and information collected by the platform, right? It feels like a very common phenomenon that the platform will read the storage rights, access the content of mobile phone albums, and use the camera microphone, are these considered invasions of privacy? Those who need real-name authentication to leave ID numbers and mobile phone numbers are not also counted? But what can players do" (UG13)

4.2.4 Alienation of labour product: control of profits

Private control of monetary profit is a manifestation of alienation from the product of labour (Fuchs, 2014). The resulting data holds value as it fulfils users' needs for showcasing certain aspects of their lives, facilitating communication, and promoting

collaboration. Almost all respondents reported that they had not been paid to play in the game. UG01 said, "There are part-time jobs in the development of the game, such as accompanying and coaching, and you should be able to get paid for them". UG06 and UG09 argued, "I'm mainly doing it for recreation and entertainment and not trying to make a profit". UG15 believe that it is possible to play games without being paid, but would like to have virtual material rewards, such as gaming equipment.

UG07's answer is more representative.

> "The game's various achievements, various wins and losses are all displayed in the form of data at the end, and when we share with our friends around us, we also display the relevant data, which inadvertently turns the purpose of our game into reaching better data (such as the game level), and we just use our time to buy the data under the framework of the game instead of playing the game for the sake of the original pleasure, even if we are forced to spare our time to complete the game tasks we consider necessary for the sake of data. for the sake of data, we will force ourselves to free up time to complete the game tasks we deem necessary, which is, even more, alienating ourselves into data labour for the game."

4.3 Theme 3: Impact of Alienation

This theme considers the impacts of this alienation on Chinese college students. In our in-depth interview, interviewees expressed the impact of gaming on their physical and mental health, and it is clear from the interviews that prolonged gaming damages the physical and mental health of gamers to varying degrees, as shown in the following interviews.

In relation to physical health, the majority of participants felt that the game was affecting their physical health. Six participants reported that their vision was affected (UG03, UG05, UG06, UG09, UG12 and UG13). UG06 said, "I think it will have an effect, my eyesight is slowly increasing just because of my excessive gaming. If I don't moderate it in the future, it may continue to go up, so I'll have to be careful in the future". In addition to vision, participants also spoke of other physical impairments, such as the health of the joints in the hands and health problems in the lower back and neck.

> "To some extent, it will affect physical and mental health. After excessive playing games, hands, eyes, and neck will be sore, which will certainly affect physical health for a long time. Meanwhile, playing games continuously for a long time will make people feel vacant and empty mentally, which will affect physical and mental health" (UG01).

> "The most important issues are the health of the joints of the hands and the health of the back and neck. There have been cases of hand cramps as well as numbness in the arms. Or the reaction is not obvious at the time, but when you get up the next day or when you are working at work, you will feel soreness in the cervical spine and lower back, which further compresses the nerves" (UG10).

In relation to mental health, the majority of respondents agreed that gaming is not harmful to their mental health and that they are not addicted to it. However, there were also respondents who felt that the game had a psychological impact on them.

> "I feel satisfied if I have more fun playing, I feel guilty if I play for too long while relaxing before exams, and I feel empty and bored if I play continuously for a long time, every day, and play too much" (UG01)

> "For people who are addicted to games it can, because they can focus too much on the virtual world and lack a certain amount of attention to the real world, which can cause apathy towards people and things in the real world, apathy

towards relationships and consequently isolation, but the personality should not be so extreme" (UG02)

"Yes, addiction to games can affect real life behaviour and it is not wise to spend a lot of time on games" (UG03)

"It can be a little bit, to the point where you get carried away and become a different person" (UG05)

5. Discussion

The in-depth interview of demographic factors confirmed that Chinese college students prefer mobile games, this is in line with GPC and CGIRI's (2022) findings that the mobile games market accounted for 72.61% of the total revenue of the Chinese games market. Also, data from iiMedia Research (2020) shows that college students are the main audience for mobile games in China. According to Chinese scholar Tian (2020), in China, the portability of the mobile internet has made mobile games the most popular game genre for online game players, especially college students, who have access to online games as long as they have a mobile smartphone. Because of the portability of mobile games, Chinese college students also prefer to play games in their dormitories or at home.

Then, the behaviour of playing online games is alienated through four dimensions. The first one is alienation of labour power, Fuchs (2014) sees social isolation as a manifestation of this dimension. According to the interview, online gaming companies control the socialisation of college students because they feel isolated from their friends if they don't play online games. The findings are in line with previous studies, such as Fuchs (2014) on Facebook, "If they don't use Facebook, their lives may involve a smaller number of meaningful interactions" (p.254). As studied by Fisher (2015), the construction and maintenance of social networks contribute to the intensive exploitation of user labour by the platform, a large portion of college students rely on playing games to maintain social interaction (Cai, 2018). There are also studies on how social pressure affects people's actions, for example, young adults are more likely to use social media when they feel socially isolated (Lyngdoh et al., 2022; Primack et al., 2017; Hajek & König, 2019; Tateno et al., 2019).

The second dimension is the alienation of labour instrument, in other words, the online game companies control the gaming platform. Not only do players not get paid anything, but they have to abide by the rules of the game set by the platform. This confirms that players cannot grasp their own destiny in the game experience and play workers who think they have manipulative power over the game do not really participate in the decision-making process of Internet service providers and content providers (Qiu, 2009; Kücklich, 2005). Moreover, the intellectual property of the game is firmly controlled by the game company and not the player, who bears the economic and legal risks arising from his activities (Kücklich, 2005).

The third dimension is alienation of labour object. Fuchs (2014) argues that the object of labour for social media users is human experience, which is reflected on the web as data. Interview survey shows that gaming companies profit from monitoring and tracking the private data of players. The results of the above interviews all indicate that players' private data is being taken for free by the platform, which is in line with previous research. For example, Brown (2013) believes advertisers can not only get a feel for their audience's consumption patterns but can also tap into other relevant personal data. Srnicek (2017) points out that with multiple platforms competing, users' private data will inevitably be subject to more and more intrusion and exploitation.

The fourth dimension is alienation of products, this form of alienation is the control of profit. The interview survey finds out that the gaming platform not only meets the various

needs of the players but also the players serves the profit needs of the gaming platform by contributing their game time. These needs drive players to use online gaming platforms and leave behind huge amounts of data, which are then called user-produced products (Fuchs, 2014). The game platform can commercialise their labour data and information through back-end statistics and resell them to advertisers or investors, thus converting their economic value into profit (Qiu, 2009). This means that the gaming platform controls the profits (Fuchs, 2014). Also, the findings confirm that the platform controls profits by extending players' playtime. As Fuchs' study (2012) found, the more time an internet user spends on social media, the more data the content he produces is sold to advertisers, and the more ads are placed. The survey result can also confirm the previous research results; namely, college students are a more valuable data commodity group, they tend to spend a lot of time in online games, during which the platform sends more targeted advertisements to this group (Liu, 2021).

There are also implications for the phenomenon of alienation, which are both physical and psychological. For example, sore hands and eyes from excessive gameplay, and a sense of emptiness afterwards. All the surveys confirm the previous studies. The negative effect also appears when the game behaviour takes up most of the time and energy in the game life. On the one hand, it is the deterioration of the players' physical condition. Long-term game behaviours will occupy the time of sports and labour, seriously affect the quality of life, make the immune function of the players decline, and finally lead to a sub-health state of the body (Van Den Eijnden, 2018; Mustafalu et al., 2018; Rahayu, 2021). According to relevant studies, many excessive game people appear skin spots, palpitations, headaches, fatigue, runny nose, itchy eyes, neck and back pain, transient memory loss, immune function decline, irritability, depression, insomnia, and dreams, and other sub-health symptoms (Li, 2012).

On the other hand, playing games requires gamers to maintain relatively fixed positions and repetitive mechanical movements for long periods, which can lead to musculoskeletal damage, and gamers are at increased risk of wrist joint pathologies, varicose veins, strokes, and other conditions (Wu, 2020). Once the gamer adapts and accepts the quick and cheap thrill and satisfaction offered by online games unconditionally, he or she cannot help but indulge in them, showing the symptoms of "game addiction": the gamer tends to avoid the stress and difficulties of reality. Instead, it seeks comfort and pleasure in the virtual world (Mustafalu et al., 2018; Triberti et al., 2018; Kharisma, 2020).

6. Conclusion

This qualitative study conducted an in-depth exploration of college students who regularly play online games. The study focuses on how gamers' gaming behaviour can be translated into digital labour. Three themes were developed which best represented the participants' experiences. These themes included demographic factors, alienation to digital Labour and the impact of alienation to digital Labour.

Findings indicate that Chinese college students prefer mobile games and spend a lot of time on online games. Also, the result of in-depth interviews confirms that online gamer players lost control of sociality, control of platforms, control of data, and control of profits, resulting in alienation. Then, the alienation leads to several adverse effects, including physical and mental health.

The strengths and contribution of this study to knowledge are as follows. Theoretically, this study was able to provide a basic understanding that digital labour theory is equally applicable to explain alienation in online games, with control of sociality, control of platform, control of data and control of profits proving to be the four forms of alienation of gamers' digital labour. As such, this study provides an answer to the seeming uncertainty highlighted by previous research. By positioning social media digital labour

theory as an important theoretical lens for user research, the gap in the literature is narrowed. Another contribution is methodology. Unlike the usual ethnography used by previous scholars, this study takes a qualitative interview approach to examine the labour practices of Chinese college gamers who play online games and explores the alienation forms of this labour in terms of their intuitive experiences.

While the current study has many strengths, there are several limitations. One of the limitations of this study is that the sample size is small and does not provide a very comprehensive current status of the alienation phenomenon of digital labour among college students. Second, while providing a variety of interview methods removed financial barriers for participants, written interviews limited rapport building and interpretation of non-verbal cues. The third limitation is that only Chinese college students were examined, which does not reflect the situation of college students worldwide. In future research, quantitative methods are needed to collect more samples to advance this study further. At the same time, the study should be placed in an international context to explore the alienation of digital labour.

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