### Research on Online Games and Social Interaction

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**Abstract:** This paper delves into the central position of online games in contemporary society and their close relationship with social interaction. With the popularity of the Internet, online games have become one of the most important ways of leisure and social communication. The study outlines the development of MMOs, from their origins to their diverse classifications, and in particular how their unique social characteristics facilitate interactions between players. Through theoretical analysis combined with social exchange theory and symbolic interaction theory, this paper reveals the mechanisms of social interactions in MMOs, including inter-player exchanges, cooperation and competition, and explores how these interactions profoundly affect players' gaming experience and behavioural decisions. Further, this paper analyses the trend of convergence between online games and social networks, and how this convergence enhances the social attributes and player engagement of games. At the same time, the paper also focuses on the social problems that online games may bring, such as Internet addiction and social disorders, cyberbullying, etc., and looks forward to the impact of technological advances on future social interaction patterns. Finally, the paper summarises the potential and challenges faced by online games in promoting healthy social interactions, and puts forward suggestions for future research with a view to promoting the healthy development of the field of online games and social interactions.

**Keywords:** Online Games; Social Interaction; Player Interaction; Game Experience; Social Network Convergence.

#### 1. Introduction

With the rapid development of Internet technology, online games have become an indispensable part of contemporary society, and their influence has permeated every aspect of social life. Online games not only provide players with a new way of leisure and entertainment, but also become an important bridge connecting people with each other with its unique social characteristics. Social interaction, as a basic need of human society, has been unprecedentedly demonstrated and deepened in online games. This paper aims to explore the position of online games in contemporary society and the complex relationship between them and social interaction. Through in-depth analyses of the development history, social characteristics, and integration status of online games with social networks, this paper will further reveal the impact of online games on social interaction and their important role in modern society. At the same time, this paper will also focus on the social problems and challenges brought by online games, and look forward to its future development trend, providing theoretical support and practical guidance for the healthy development of online game industry.

# 2. The Development History of Online Games

#### 2.1. Origins of Online Games

The origins of online gaming can be traced back to the early days of computer networking, when the concept of remote multiplayer online interaction began to take root with the rise of ARPANET (the US Department of Defense Advanced Research Projects Agency network, the precursor to the Internet) in the late 1970s and early 1980s. Early online games were mostly text-based, such as the MUD (Multi-User Dungeon) series, which ran on simple text-based interfaces and were played through command line instructions, allowing players to explore, communicate and even collaborate on

tasks in the virtual world. These games, despite their rudimentary graphics, have taken on the shape of online social networking, marking the birth of online games as a new form of entertainment. With the progress of computer graphics processing technology and the popularity of the Internet, online games have gradually transformed from text to graphics, and the game content and social functions have become increasingly rich and perfect, laying a solid foundation for the prosperous development of modern online games.



Figure 1. Origins of online games

#### 2.2. Classification of Online Games

With the continuous progress of technology and the diversification of players' demands, online games have gradually formed a variety of genres and styles. Among them, Massively Multiplayer Online Role-Playing Game (MMORPG) has become one of the most representative genres with its grand worldview, rich character settings and deep social system, in which players can play different roles in the game, explore the unknown world together with other players and establish deep social relationships. In addition, multiplayer online tactical games (MOBA) such as League of Legends and Honor of Kings have attracted a large number of players with their fast-paced battle modes and high degree of

teamwork, in which instant communication and co-operation become the key to victory. First-person shooter (FPS) games such as Jedi Survival and Call of Duty series, on the other hand, with their realistic combat experience and exciting competitive atmosphere, allow players to enjoy the fun of social interaction in intense confrontation. These different types of online games not only enrich players' entertainment choices, but also show the diversity and innovation of online games in social interaction.

#### 2.3. Social Characteristics of Online Games

Since its birth, online games have been known for their unique social characteristics. Players in the virtual world not only pursue the challenge and fun of the game itself, but also pay more attention to the communication and interaction with other players. The social characteristics of online games are mainly reflected in the following aspects: first, the game's built-in chat system, buddy system, and guild (or team) system, etc., provide players with a variety of social channels, making it easy for players to establish and maintain social relationships; second, teamwork and competitive rivalry have become the core gameplay of many online games, and players need to collaborate with each other and cooperate with each other strategically, which not only strengthens the game's social interaction, but also makes it more fun for players to communicate and interact with other players. This close social interaction not only enhances the fun and challenge of the game, but also promotes the emotional exchange and trust between players; third, the virtual economic system and achievement system in online games further stimulate the social desire of players, who deepen their social connections in the game world through trading, gifting, sharing and other behaviours. These social characteristics together constitute the unique charm of online games, making them one of the indispensable social platforms in modern society.

# 3. Theoretical Foundations of Social Interaction

# 3.1. Definition and Importance of Social Interaction

Social interaction is the process of mutual influence and communication between individuals in a social setting through language, behaviour or media. It covers a wide range of behavioural patterns from simple daily dialogue to complex group cooperation and conflict resolution. In human society, social interaction is not only a basic way of information transfer and resource sharing, but also an important cornerstone for building interpersonal relationships, forming social structure and maintaining social stability<sup>[1]</sup>. Through social interaction, people are able to build trust, share emotions and coordinate their actions so that they can jointly respond to the challenges and opportunities of life.

In the digital era, the importance of social interaction has become more prominent. With the rapid development of Internet technology, virtual social platforms such as online games have provided people with a brand-new interactive space, making social interaction no longer subject to geographical and time constraints. These platforms not only meet people's basic social needs, but also promote crosscultural communication and understanding, which has a profound impact on modern society. Therefore, an in-depth understanding of the definition and importance of social interaction is of great significance in exploring the role and

influence of online games in it.

#### 3.2. Theoretical Models of Social Interaction

In exploring the complex intertwining of online games and social interactions, it is particularly important to gain a deeper understanding of theoretical models of social interactions. These models not only provide us with a theoretical framework for analysing social behaviours, but also reveal the psychological mechanisms and social dynamics behind social interactions.

#### (1) Social exchange theory

Social exchange theory is one of the most important theories explaining social interaction, which emphasises that people seek to maximise the balance between benefits and minimise costs in the interaction process<sup>[6]</sup>. In the online game environment, this exchange is not only limited to the exchange of material resources (e.g., game equipment, gold coins), but also includes the exchange of non-material dimensions such as emotional support, social status, and information sharing. By cooperating to complete tasks and assisting each other to solve problems, players establish a social relationship based on the principle of reciprocity, which further promotes deeper social interaction.

#### (2) Symbolic Interactionism

Symbolic interaction theory, on the other hand, emphasises the central role of symbols in social interaction. In online games, symbols exist in a variety of forms, such as text chat, voice communication, emoticons, character actions, and so on. These symbols are not only the medium of information transmission, but also the tools for players to express themselves, understand others, and construct and maintain social relationships <sup>[7]</sup>. By interpreting and responding to these symbols, players continuously adjust their game behaviour and social strategies to suit the game environment and other players.

#### (3) Social Identity Theory

Social identity theory states that people gain self-identity and group belonging by categorising themselves into a social group. In online games, players often form different communities or teams based on factors such as game interests, character selection, and game level<sup>[8]</sup>. These communities not only provide players with a sense of belonging and identity, but also promote social interaction within the community through common goals, values and behavioural norms. Players share experiences, exchange tips, and support each other in the community, forming a close social bond.

#### (4) Social Capital Theory

Social capital theory emphasises the importance of resources in a social network for an individual or group. In online games, players establish a wide range of social connections through interactions with other players, and these connections constitute the players' social capital [9]. Social capital not only helps players obtain more resources and information in the game, but also improves players' game skills and levels. At the same time, social capital also provides players with emotional support and social fulfilment, which enhances their gaming experience and satisfaction.

# 4. Social Interaction Mechanisms in Online Games

#### 4.1. Forms of Interaction between Players

In online games, players interact with each other in a variety of ways, which constitutes the core of the game's

social interaction<sup>[2]</sup>. Communication is the most direct way of interaction between players, through the game's built-in chat system, voice calls or third-party communication software, players can communicate tactics in real time, share game tips, and even establish a deep friendship. Co-operation is a common mode of social interaction in online games, players need to team up to complete the copy challenge, participate in team competitions, etc., to face the difficulties and challenges of the game, this collaboration not only enhances the tacit understanding between players, but also promotes the cultivation of team spirit. Competition is also an important form of interaction between players, whether it is individual or team competition, competition inspires the players' fighting spirit and potential, but also adds excitement and fun to the game. These forms of interaction are intertwined with each other, and together they form a colourful social ecology of online games.



Figure 2. Forms of interaction between players

### **4.2.** Impact of Social Interactions on the Gaming Experience

Social interaction plays a crucial role in online games and has a profound impact on players' gaming experience. Social interaction can significantly enhance the immersion and fun of the game. Through communication, cooperation and competition with others, players not only enrich the level of game content, but also make the game experience more vivid and diverse. Social interaction helps enhance players' game engagement and stickiness. When players establish solid social relationships in a game, they are more inclined to continuously invest time and energy in maintaining these relationships and exploring the mysteries of the game world together. Social interaction also promotes emotional resonance and mutual support among players, and this emotional connection can alleviate frustration and loneliness during gameplay, thus enhancing players' overall satisfaction and happiness. Therefore, it can be said that social interaction is an indispensable part of online games, and it has an irreplaceable role in enhancing the game experience.

### 4.3. Impact of Social Interaction on Player Behaviour

In the virtual world of online games, social interactions profoundly influence players' behavioural patterns. Social interaction promotes learning and imitation among players. By observing other players' gaming skills, strategic choices and behavioural patterns, players tend to imitate and internalize these experiences, thus improving their own game level. Social interaction shapes players' cooperative and competitive behaviours. In order to achieve a common goal or honour, players tend to form teams and show a high degree of collaboration; while when facing competition for resources

or rankings, players' competitive behaviours will also increase significantly. Social interaction also influences players' game decision-making process. When facing choices, players may refer to the opinions or behaviours of other players to seek social recognition or avoid social rejection, and then adjust their decision-making direction. In summary, social interaction is not only an important part of online games, but also an important force in shaping player behaviour and promoting the development of game culture.

# 5. Integration of Online Games and Social Networks

### **5.1. Integration of Online Games and Social** Networks

With the rapid development of the Internet, the integration of online games and social networks has become an irreversible trend. Modern online games have introduced the functions of social network platforms, such as friend systems, chat rooms, dynamic sharing, etc., which enable players to easily keep in touch with their friends both inside and outside the game, and to share their gaming experience and achievements<sup>[3]</sup>. At the same time, many social networks have also actively cooperated with online games, launching exclusive game applications or pages to provide players with more convenient game entrances and social experiences. This integration not only enriches the social functions of online games, but also promotes cross-platform exchanges between players and breaks the boundaries of traditional gaming communities. Through social networks, players can more easily find like-minded partners to explore the game world together and enjoy the fun of teamwork. In addition, the extensive coverage of social networks also provides new channels for the promotion and marketing of online games, further promoting the development of the online game industry.

### **5.2.** Impact of Social Networks on Online Games

The rise of social networks has had a profound impact on online games. Social networks provide a broader publicity and promotion platform for online games. Through the viral spread of social networks, online games can quickly attract a large number of potential players and expand the user base. Secondly, the friend relationship network in social networks directly promotes social interaction in online games<sup>[4]</sup>. Players can invite their friends to play with them and complete tasks or challenges together, which enhances the social attributes of the game and player stickiness. Moreover, the data analysis function of social networks provides online game developers with valuable user behaviour data, which helps them understand players' needs more accurately and optimize game design and user experience. Finally, social networks also promote the formation and development of online game communities, where players can exchange tips and share strategies on social platforms, forming close game communities and further enriching the social ecology of online games.

# 6. Social Issues and Challenges in Online Games

#### 6.1. Internet Addiction and Social Disorders

With the popularity of online games, the problem of Internet addiction has become increasingly prominent and has become a major challenge affecting the social health of players. Internet-addicted players are often addicted to the virtual world, over-investing time and energy in gaming, resulting in a disconnection from real-life social activities and social disorders. They may neglect real-life communication with family and friends due to prolonged gaming, reducing face-to-face socialising opportunities and gradually losing their ability to socialise in the real world. In addition, Internet addiction may also cause psychological problems such as anxiety and depression, further aggravating the severity of social disorders. Therefore, online game developers need to pay attention to the addictive design of the game, take measures to limit the playing time and provide reminders of healthy games, while the society should also strengthen its attention to and intervention in the problem of Internet addiction, and guide players to establish a healthy balance between games and social interaction. Through multifaceted efforts, the negative impact of Internet addiction on players' social life can be reduced, and the healthy development of online games and social interaction can be promoted.

#### 6.2. Cyberbullying and Player Behaviour

In the virtual world of online games, cyberbullying has become a social problem that cannot be ignored. The anonymity and distance between players often become a breeding ground for bullying behaviour. Some players make use of in-game chat systems, guilds or group functions to verbally insult, ostracise or even threaten others, seriously infringing on the victim's mental health and gaming experience. Cyberbullying not only causes victims to develop negative emotions such as low self-esteem and fear, but may also force them to leave the game and even affect their social behaviour in real life. Therefore, online game platforms need to establish a sound regulatory mechanism to intervene and punish bullying behaviours in a timely manner, and at the same time strengthen player education and guidance to advocate a healthy and civilised social culture. In addition, victims should be encouraged to actively seek help and support to create a harmonious and friendly gaming environment, so that every player can enjoy the fun of online games instead of suffering from bullying.

# 7. Future Trends of Online Games and Social Interaction

### 7.1. Impact of Technological Advances on Social Interaction

With the rapid development of technology, future technologies will profoundly change the way of social interaction in online games. The increasing maturity of virtual reality (VR) and augmented reality (AR) technologies will provide players with a more immersive social experience. Players will be able to interact with other players in an immersive way, whether they are participating in tasks together or engaging in casual exchanges, all of which will be closer to real life<sup>[5]</sup>. The application of Artificial Intelligence (AI) technology will further enrich the level of social

interaction; AI can not only simulate human behaviours and participate in in-game social activities, but also adjust the interaction methods according to players' preferences and emotions, thus enhancing the realism and personalisation of social interaction. The introduction of blockchain technology is expected to bring higher transparency and security to social interactions in online games, safeguard players' rights and interests in the virtual world, and promote a healthy and positive social atmosphere. To sum up, technological progress will bring unprecedented changes to social interaction in online games and promote its development in the direction of more diversification and intelligence.

#### 7.2. Social Responsibility of Online Games

With the increasing influence of online games in society, the social responsibility they bear is becoming more and more significant. Online game developers should actively advocate healthy and positive social interactions and guide players to form correct values and behaviours through game design. This includes, but is not limited to: strengthening the audit and supervision of game content to ensure that the game content does not contain violence, pornography and other elements; designing reasonable undesirable mechanisms to avoid over-indulgence of players and prevent network addiction; establishing effective reporting and punishment mechanisms to combat cyber-bullying, fraud and other negative behaviours in the game. At the same time, online game developers should also actively participate in social welfare activities, use the game platform to spread positive energy, and enhance the public's awareness and recognition of the online game industry. In addition, as the main body of social interaction, players should consciously maintain the game environment, respect others, rational communication, and jointly create a harmonious and healthy online game social space. To sum up, online game developers and players should work together to assume the social responsibility of promoting healthy social interaction.

#### 8. Conclusion

This study delves into the status of online games in contemporary society and their close relationship with social interaction. By reviewing the development history of online games, we realise that they have not only become popular as a form of entertainment, but have also become a social platform that cannot be ignored in modern society. It is found that online games significantly promote social interactions among players through diverse interaction mechanisms, such as communication, cooperation and competition, and have a profound impact on players' gaming experience, satisfaction and even behavioural decisions. At the same time, we have also noticed the challenges faced by online games in social interaction, such as Internet addiction, social barriers and cyberbullying, which need to be solved by the joint efforts of society, developers and players.

Technological progress will continue to drive social interaction in online games in a more immersive and intelligent direction, bringing players a richer and more realistic social experience. However, along with this process, the online game industry should take on the social responsibility of promoting healthy social interactions, ensuring that technological development benefits the majority of players, and working together to build a harmonious and positive social environment for online games. This study provides valuable insights for understanding the relationship

between online games and social interaction, and also points out the direction for future related research.

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