

# *A Study on Social Engagement of RPGs*

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**Abstract:** As the game industry has developed, fresh and fashionable games continue to emerge. With the emergence of VR technology, VR games have changed entertainment for many people but also exposed many drawbacks of online games. One of the drawbacks is the lack of social connections with other players. This study mainly focuses on role-playing games (RPGs). The literature review and the survey summarize reasons for the lack of social attributes on online RPGs. The goal is to propose solutions based on the survey findings. The comparison between traditional online RPGs and VR RPGs indicates that VR RPGs have more room for improvement in terms of social connection. Four suggestions are listed and a simple analysis of their feasibilities are also discussed in the article. Moreover, this study finds two unique characteristics of VR games that may successfully encourage people to embrace new technology, even in a world full of uncertainty.

**Keywords:** RPG, online games, VR, social engagement

## 1. Introduction

In 2018, Steven Spielberg's film *Ready Player One* hit theaters all over the world, envisioning a future in which users can walk freely through the virtual world like the protagonist, and maybe even find love. Nowadays, this seemingly far-fetched wonder is being pursued as a real technology. Around the world, companies developing VR games and VR products are popping up, and dreams are coming true at an exponential rate. Notwithstanding, some doubts are becoming louder and louder. Most of these fancy games fail to meet the needs of basic human social interaction [1]. Marx said that the essence of man is the sum of all social relations [2]. However, video games, to a certain extent, isolate individuals and reduce their ability to socialize. Also, unfortunately, the research in this field is still at a relative entry level with deficiencies in both technology and literature. Therefore, the purpose of this paper is to study whether online games lack social attributes and suggest some corresponding solutions.

This study specifically focuses on RPGs, where players are the ones who want to have more social interactions to explore multiple types of games' capacity of social interactions [3].

A survey and comparative analysis of existing relevant literature are adopted in the study to find out the differences between online RPGs and offline RPGs in their impacts on social relations and conclude that online RPGs lack social attributes. Further, the study compares VR RPGs to traditional RPGs. The results indicate that VR RPGs have more room for improvement in social aspects than traditional games.

Some suggestions on how to improve the social features of VR games in the future are listed in the analysis and discussion part of this paper.

## 2. Literature Review

### 2.1. Comparison Between Online RPGs and Offline RPGs

In 2022, Han Min and other scholars conducted an interview on young people and found that the main motivation for them to play offline RPG games is to seek a sense of existence. Although they are in a group, they still feel empty and lonely [4]. This phenomenon is called *Alone together* as put forward by Sherry Turkle [5]. But RPGs give them the opportunity to play and make their own destiny, which is the best way for them to get out of this predicament, also known as *Postdramatisches Theater* [6]. Also, the research of James J. Cummings and Jeremy N. Bailenson showed that immersion has a medium-sized effect on presence, so RPGs can be regarded as a necessary means to enhance people's self-identity by improving their sense of immersion [7]. Nissa Tarnoto et al. conducted an RPG test on preschool children and found that offline RP methods could improve their social ability to some extent [8]. RPGs also play an important role for specific groups of players. Anna McCoy et al. found that children and young adults with autism can alleviate their autism through RPGs [9]. Oddly, there is little research on the social effects of online RPGs. Lei created a questionnaire and sent it out to a number of gamers, then reached the following conclusions: Cooperation and responsibility play a big role in judging the social experience, influencing user behavior (frequency, duration) and attitude (game satisfaction, recommendation index) [10]. Nicolas Ducheneaut et al. analyzed data collected directly from the *World of Warcraft* game and concluded that the prevalence and degree of social activity is probably overestimated [11]. Dmitri Williams conducted a one-month study of an immersive game and found that most players became insular and unwilling to meet face-to-face in real life [1]. However, Sabine Trepte et al. found that online games can also create strong social connections, and some social activities can even be extended to real life [12]. Douglas Thomas and John Seely Brown put forward a bold idea in *Why Virtual Worlds Can Matter*. They argued that online worlds can create another way to socialize. This new way may find its way into people's real life in the future [13].

### 2.2. Comparison Between Traditional Computer Games and VR Games

Penny Sweetser and Zane Rogalewicz tested the VR and non-VR versions of a game on the same players and found that most of them preferred the VR version, mostly because they thought it was more comfortable to play. Immersion, feedback, player skills and control had more points of differentiation for the VR experience and helped to define a successful implementation of a VR game experience [14]. Also, N. Katherine Hayles put forward an idea: *embodiment*, which said characters in VR games can be seen as a human [15].

### 2.3. Existing Suggestions to Enhance Trust in the VR Platform

Divine Maloney and Guo Freeman in a paper called *Falling Asleep Together: What Makes Activities in Social Virtual Reality Meaningful to Users?* mentioned the possibility of a full-body device, with sensors throughout the movement capturing a relatively complete data set, to achieve a full-body immersion mode [16]. Zhu Tianyu studied some VR devices on the market, analyzed their advantages and disadvantages, and came up with several current directions for improvement [17]. Li Jiajia and Zheng Zixia discussed human-machine relationship at the end of *Embodied Communication and Future Construction of VR Technology in the Social Field* and said that if VR

can achieve individuation and enable players to empathize, it will be a huge impact on communication mechanism [18].

### 3. Methodology

In order to study this topic, a lot of literature and concepts from classical works were included in the paper to explain the point. Moreover, to make the opinion more convincing and in line with the current social situation, a small-scale survey was conducted that mainly targeted at college students. A thinking system was formed based on the data from the survey and various viewpoints in the literature, which will be detailed in the next part.

The literature review mainly drew on the theories or concepts proposed by predecessors by processing and explaining them. Unfortunately, due to the limited experimental conditions, surveying a larger population was not realistic. Therefore, in this regard, some experimental results of others quoted in recent years hope to make up for the limited scope of the survey.

For the survey, a questionnaire was designed, which mainly included three levels: whether you like RPGs, whether you prefer to make friends in online RPGs or offline RPGs, and the effect of VR games on making friends. Finally, 41 people's data were collected and 37 of whom had valid questionnaires. These were college students and the young people entering the workforce, who fitted my target demographic. From the data analysis, most people still like to make friends in offline RPGs, and nearly two-thirds of people who had played VR games thought that VR games need to be improved. However, due to the limitation of people and regions, a decisive judgment was unrealistic based on the survey, but the results still have certain reference values.

### 4. Analysis and Discussion

In contemporary society, with the explosive popularity of VR, VR games in an increasing number have come into the public. However, due to the uneven quality and chaotic market order, VR games have some drawbacks, including the lack of social features. This is also a common problem after the rapid development of video games in recent years. Through this study, it is appreciated to find out the reasons for the lack of social attributes of online RPGs and put forward some suggestions for improvement.

The type of game studied is RPGs. The reason of choosing RPGs is mainly from the perspective of player motivation. In the study of game motivation, a well-known taxonomy of players is the four types of players proposed by Richard Bartle: "achievers", "explorers", "social players", and "killers". Achievers make it their primary goal to accumulate game points and improve their game skills; Explorers like to uncover hidden things in the game; Social players derive their enjoyment from being with other players; Killers have fun punishing others. At the same time, Bartle's observation of player experience based on research shows that players tend to have one main style of play and switch to other styles only as a means of increasing their primary interest [19]. Based on this theory, Davinder Ghuman and Mark Griffiths analyzed and compared the age, time spent online, quality of friends and other aspects of different game types, and found that RPG players are more inclined to make friends, have the strongest sense of immersion, and prefer social interaction [3]. Of course, this is reflected in the survey, in which 16 out of 37 people who liked playing RPGs said they wanted to make friends through RPGs. For these reasons, the study object is RPGs.

The results are presented below.

#### 4.1. Comparison Between Online RPGs and Offline RPGs

Through literature review and questionnaire survey, two similarities and four differences between them are summarized. Similarities are listed as follows:

First of all, the motivations for playing RPGs are the same. According to research, RPG consumers aged between 19 and 25 accounts for 15.2%, while those aged between 26 and 30 account for 39.2% [20]. This shows that young people aged between 19 and 30 are the main force in RPGs. Most of them are college students and young people who have just started their careers. Some call them *The wandering primitive social man* [20]. The reason why they wander is most of them face the dilemma of being abandoned by a group. It is difficult to go back to the former campus, and the work group cannot be integrated. However, they are not actually abandoned by groups. They have clear working plans and tasks, which makes them always present but always ignored. This is very common in our society now, not only for those who just enter the workplace, everyone will experience this kind of encounter more or less in different occasions. This phenomenon is what Sherry Turkle calls *Alone together* [5]. Although in a group, a person still feels lonely. So returning to the collective is an important motive for their playing.

Also, another key point is their forms. To borrow a concept from theater science: *Postdramatisches Theater* [6]. It was proposed by Hans-Thies Lehmann in his 1999 *Postdramatic Theatre* book. RPGs can be regarded as a form of *Postdramatisches Theater* because it has characteristics that conform to *Postdramatisches Theater*, detextualization. In a play, text is not the leader of a drama but an element like figures and audio. RPGs is presented in a form that weakens the text and integrates multiple elements to perform the storyline. More importantly, he broke the boundary between the audience and the performer, where the audience is not just passively receiving information, but can actively participate in the performance. RPGs are played by ourselves, and we can largely choose what we want to show, which is the essence of *Postdramatisches Theater*. Of course, in the survey, when they were asked why they play such games, 73% of them chose “playing a variety of characters always makes me feel fresh”, indicating that they are no longer satisfied with the multi-textual and abstract concepts in real life, they want to be able to control their own destiny.

In addition to these similarities, they also have many differences.

The fundamental difference is that there is a huge difference in the level of trust people place in the two forms of gaming. In real life, although we are acting as another person, most of us can find the real you hidden behind the characters we play. Based on this, we can trust you as a partner or even make friends with you to build a good interpersonal relationship. Compared to offline RPGs, characters in online games are more easily to be regarded as machines, not a human. This is because people lack trust in a computer, they do not believe a cold calculator can reflect our real image and ideas. It is common that when a new technology comes out, we doubt and reject it. Online games are a recent phenomenon that will cause a crisis of trust in some degree.

Secondly, the lack of authenticity in online games is another important factor. The main scenes of offline RPGs render some atmosphere based on the original room layout, which is similar to *Heterotopia* [21]. *Heterotopia* is a utopia effectively realized in a real place. Specifically, in the real world, we create a virtual world, the rules and order of this new world are different from the real world, and we use the shell of the real world to carry out surreal creation. This concept was proposed by French philosopher Michel Foucault and is now widely used in various movies, such as the world in *the Hunger Games*. Online RPGs, on the other hand, are purely virtual worlds. Given that the current technology is not very mature, the virtual worlds we build are not realistic enough for players to think that they can be fake, nor can they pass *the Turing test* [22]. *The Turing test* is an important assumption in Alan Turing’s 1950 paper *Computing Machines and Intelligence*, as well as an important concept in computer science. It says that if a person looks at the results of the same task performed by a human and a machine and cannot tell which was done by a human and which was done by a machine, then the machine has passed *the Turing test*. ChatGPT, for example, is a very popular AI that passes *the Turing test* very well. But unfortunately, computer graphics

have not yet developed a good algorithm to pass *the Turing test*. As a result, online games are not ideal for producing perceptual authenticity.

Furthermore, online RPGs lack the assistance of facial expression, tone and body language, which is disadvantageous in communication. In psychology, there is a professor named Albert Mehrabian who proposed a *Farabin's law* [23]. After 10 years of research examining the relative importance of verbal and non-verbal messages, he concluded that only 7 percent of people's impressions of a person come from what you say, 38 percent from the tone of your voice and 55 percent from appearance and body language. *The Book of Songs* says: "The motion is moved in the heart and takes shape in words; if words are not sufficient, sighing can be better; if sighing is not sufficient, songs can be better; if songs are still not sufficient, motions can be expressed with hands, by dancing, with feet, by springing." [24]. When people cannot simply express their feelings with words, they cannot help but dance as an aid to expression. But online games erase this support, which makes it difficult for people to fully express their feelings, and to a certain extent inhibits the possibility of making friends. Moreover, it has become popular in recent years to say that it is the fate of the speaker to be misunderstood. Since we all have this worry about being misunderstood even when we communicate in person, let alone when we are facing the screen?

Finally, the instability of the network is one of the major factors affecting social engagement. While playing, some players may drop off the internet or quit doing something else in real life. This instability may cause anger or unpleasantness among their partners in games. However, in real life, this phenomenon will not happen or has less occurrence. In the survey, 65% cited this as a reason why online RPGs are bad for making friends.

Through analysis, it can be seen that it is difficult to obtain a friendship. Moreover, compared with offline RPGs, online RPGs have a worse environment for making friends, and online RPGs lack social attributes. Through the analysis of the survey results, people were still more willing to make friends in offline RPGs. 84% chose to make friends in offline games, far more than those who chose online games. Meanwhile, through comparative analysis, the reasons why online RPGs are not conducive to making friends were found, mainly as trust crisis, lack of authenticity, instability and lack of various auxiliary expressions causing strong inaccuracy. Some suggestions are put forward based on the above reasons, so that the social function of online RPGs can be better developed.

#### 4.2. Comparison Between Traditional Online RPGs and VR RPGs

Before making suggestions, the scope of online RPGs is a little wide, so it is difficult to give targeted suggestions, and the suggestions on this part in the literature has many gaps. So it is important to look at a specific class of online RPGs to make specific recommendations point by point. Therefore, online RPGs are divided into two categories: traditional RPGs and VR RPGs. Traditional RPGs are those use a mouse to operate on a computer or a mobile phone. Wearing a device and immersing the whole person in a virtual space is called VR games. And there is *embodiment*, which is important for VR games [15]. The concept was developed by N. Katherine. Hayles, described specifically as having the following two features: First is the automatization of the body: machine can be seen as an extension of our body, just like a tool for us to control. This concept has also been put forward by Marshall McLuhan in his book *Understanding Media: The Extensions of Man* [25]. VR headset is a tool that we use to enlarge our senses. Another is there is no essential difference or absolute boundary between physical existence (human) and computer simulation. So characters in VR games can be seen as a human.

Based on the above, a simple comparison has been made between the two. VR games create a world that, once you enter, you can have a sensory experience, which breaks the scene and builds an *energy theater* proposed by Hans-Thies Lehmann [6]. The concept of *Energy Theater* resists

distance and abstraction, and requires the producer to use a variety of artistic means to stimulate the participants' sight, hearing, smell, touch and sensation, in order to achieve a synesthetic perception. However, traditional online games do not have sensory experience beyond vision and hearing.

In the research, the current penetration rate of VR games is not very high. Only half of the people had played VR games, indicating that there was still half of the market untapped. In addition, 63% of people who had played VR games prefer traditional games to VR games. Therefore, if we conduct a survey on people who dislike VR games and improve the disadvantages of VR games, this field has significant market potential. From this point of view, VR games have more room to improve their features than traditional games. Hence, the following paragraphs focus on VR RPGs recommendations.

### 4.3. Some Suggestions for Improvements to VR RPGs

Based on the analysis in the previous section, it can be seen that the essence of improving social features of VR RPGs is to increase players' trust in VR. Based on this point, conducting a multidimensional analysis of the trust degree and giving the feasibility analysis of each suggestion are important.

First of all, building a more realistic virtual world is the essential way to solve this problem. If we can do better in the field of human-computer interaction (HCI), it will greatly improve the perceived authenticity of the environment. Therefore, the study is focused on HCI. Nowadays, according to the market shares, the most influential VR devices are HTC Vive, Oculus Rift and SONY's PS VR [17]. Analyzing the features of each device one by one, some feasible suggestions can be concluded.

Compared with other VR devices, HTC Vive has the user's location information in space and the higher-order continuous change information of location information, which is the biggest difference between the HTC Vive and the traditional interactive system. The biggest feature of the Oculus Rift controller is that its special shape can free the user's palm grip, allowing users to make more recognizable gestures in the virtual environment, and enhancing the possibility of interacting with virtual reality elements. Moreover, Oculus Rift's active positioning system has high accuracy and strong occlusion resistance. However, due to the limited viewing angle of the camera, the effective range of spatial motion of the user when using the device is greatly reduced. If you want to use VR Apps that require a wide range of physical activity, the Oculus Rift may not work well. So while the Oculus Rift can support multiple objects at the same time, it should not have more than two objects. PS VR uses the same positioning system as the Oculus Rift, but it uses visible light for positioning and features the same features as the Oculus Rift. In general, most popular devices (HTC, Facebook, Sony) use optical positioning, sensing headsets and handle with high functionality and high degrees of design freedom.

Based on this, some improvements can be considered in the following aspects:

1. Consider users' capacity for effort and mistakes. Although the visual information in the VR world is infinite, it is important to consider whether a large amount of information will affect the player's game experience and cause visual fatigue. This would greatly influence in social situations, particularly in the users' emotions while socializing with others over the platforms -- if a player has a negative psychological reaction to the game, he or she will be even less likely to socialize.

2. Make buttons personalized. VR devices on the market are usually pre-configured by manufacturers, but if users can customize their own devices according to their own habits, it may reduce the user's adaptation time to some extent.

3. Reasonable visual presentation. In VR games, we need to learn a lot of operations, and a reasonable presentation can reduce a lot of our learning costs, so as to facilitate a quick start and

cultivate interest. For social communication, a reasonable picture presentation can be more immersive and provide more life-like communication with each other.

The above three suggestions mainly focus on the design level, so the implementation is not difficult and has good feasibility.

Moreover, the popular virtual avatar technology will greatly enhance the sense of reality and enhance the probability of social interaction if it can be incorporated into VR games. The technology of virtual avatar is derived from the metaverse. It can imbue human expressions and actions on the body of a virtual avatar to achieve a high similarity of body shape and facial features, so as to turn the cold ID into an active person. If this technology is used in VR RPGs, it can well solve the shortcomings mentioned above, such as the lack of assistance, so that players can more truly see the image of the players they communicate with, and at the same time show their own personality. Thanks to the amazing development of deep learning, we have witnessed the rapid development of talking-head video models, from generating low-resolution and coarse images to high-resolution, detailed, and realistic images. However, talking-head video generation methods' real-time performance still needs improvement [26]. Of course, because the current virtual avatar technology is not very mature, and needs to be developed, the production cost is very high. It is not suitable for widespread popularization in VR games for everyone to customize a unique virtual person of their own. But it can be imagined that in the near future virtual avatar will gradually enter our life, and gradually become a part of our life.

Secondly, it is necessary to have a set of social rules for VR. Freedom under certain rules is true freedom. In the VR community, it is necessary to have a set of rules. For example, it can stipulate that everyone must pass real-name authentication then enter the game, ensuring the effectiveness of the game when making friends; The number to quit the line is limited; It also stipulates that no one can do destructive behavior or make inflammatory remarks in the community, otherwise they will be subject to substantial fines, so as to ensure that the VR community is not a place where people can act arbitrarily. Provisions such as these need to be put in place to reduce the uncertainty surrounding VR RPGs and to keep VR games from becoming lawless.

In addition, another way to enhance the social nature of VR can be considered from a narrative perspective. In general, game storytelling techniques focus on the emotional connection with the audience. Viewers often experience such strong emotions because they are reminded of similar experiences in their own lives through the story and thus evoke resonance in their own emotional experience. This phenomenon is called *empathy* [27]. If an exchange leads to such a psychological connection, then you will be more likely to have a deep social connection. This logic was also confirmed to some extent in the questionnaire, when answer "Do you think it's easier for you to make friends when you play emotional RPGs than when you play other RPGs?", 27% of players answered yes. It shows that empathy plays a certain role in the narrative of games. Therefore, if VR RPGs' narrative relies on emotional links, a certain number of fans can be increased.

The above four suggestions are only my personal opinions, which are feasible to a certain extent. Sincerely hope that they can help VR RPGs to improve social attributes.

#### 4.4. Prospects for the Future

Although the previous part puts forward a lot of suggestions for the improvement of VR RPGs, on the whole, VR RPGs have a good prospect for development. It has many advantages that cannot be replaced by other forms of RPGs, VR games can reduce costs for travel, for example, like time and money. Its infinite spaces allow players to switch to different places immediately. Moreover, VR games focus more on your heart and what you talk about, not the appearance and other external matter without seeing you in person.

In the near future, VR RPGs will increase its social attributes and be more popular among young even gradually replacing offline RPGs.

However, the research also has some limitations. The sample size of the survey is small, which is unfortunate. Also, the game industry is constantly being updated, but a few of the literature of mine is not up to date, so it is not very persuasive, but still valuable.

## 5. Conclusion

Through literature reading and the survey, it is concluded that online RPGs do lack social attributes, mainly because of the following four reasons: people lack trust in online game platforms, a sense of reality, auxiliary expression methods excluding text and language, and stability of the network. The main reason is the distrust of online RPGs. To that end, A series of suggestions proposed above are expected to improve VR RPGs' social capabilities: they involve design, computer technology, psychology, sociology and other perspectives. Through the integration of multidisciplinary knowledge, a comprehensive solution can be made to this problem. With that being said, VR RPGs will become better and better, and they will become a great social experience for more people.

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## Appendix

### A survey about the role of RPGs in the social domain

1. Whether you like playing role-playing games?
  - A. Yes
  - B. No
2. Why you like to play RPGs? (Multiple choices)
  - A. Want to make friends with like-minded people
  - B. Release pressure
  - C. Curious about such games
  - D. Receive happiness by acting different roles
  - E. Others: \_\_\_\_\_
3. Do you prefer to make friends in offline games or online games?
  - A. Offline games
  - B. Online games
4. The advantages of making friends with offline games are: (Multiple choices)
  - A. You can see others in person, this can be more intimacy
  - B. It's easier to communicate
  - C. It is more conducive to understanding others' feelings by observing their expressions
  - D. Others: \_\_\_\_\_
5. The advantages of making friends with online games are: (Multiple choices)
  - A. Do not need to afraid the shyness when having face-to-face communication
  - B. You can express yourself more freely online
  - C. Can reach people all over the world
  - D. Others: \_\_\_\_\_
6. The disadvantages of making friends with online games are: (Multiple choices)
  - A. Can be easily disturbed by things in the real world

- B. Seemly, you communicate without emotions because of the lack of body language and facial expressions
  - C. Wonder if you are talking to a machine, not a real person
  - D. Others: \_\_\_\_\_
7. The disadvantages of making friends with offline games are: (Multiple choices)
- A. Not very friendly to those who are afraid to socialize
  - B. Fear of experiencing the embarrassment when socializing
  - C. Fear of making a bad first impression because of your appearance
  - D. Others: \_\_\_\_\_
8. Do you think it is easier to make friends when you play emotional RPGS than other genres?
- A. Yes
  - B. No
9. Have you played VR games?
- A. Yes
  - B. No
10. Do you prefer VR games or traditional online games?
- A. VR games
  - B. Traditional online games
11. What are the advantages of VR games? (Brief question)
12. What do you think could be improved in VR games? (Brief question)