

# Research on the Emotional Resonance Effect of Online Virtual Idols: From the Perspective of Parasocial Interaction (Postprint)

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## Abstract

With the rapid development of the virtual idol industry, virtual idols and fans have built a close, two-way rush, symbiotic quasi-social relationship, online virtual idols can replace real people, provide emotional value, and virtual idols with “people in the middle” behind them will be more likely to cause emotional resonance.

## Full Text

### Preamble

#### Research on the Emotional Resonance Effect of Online Virtual Idols from the Perspective of Quasi-Social Communication

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**Abstract:** With the rapid development of the virtual idol industry, virtual idols and fans have established a close, two-way, symbiotic quasi-social relationship. Online virtual idols can replace real people and provide emotional value, and virtual idols with “people in the middle” behind them are more likely to cause emotional resonance.

**Keywords:** quasi-social interactions; virtual idols; emotional empathy; The Man in the Middle

## 1 Introduction

With the continuous evolution of digital media technology, the virtual idol industry has developed rapidly, bringing virtual idols into the public consciousness.

Virtual idols have become a topic of widespread concern across society, and their impact on social development will become increasingly profound as time progresses. Virtual idols are idol figures created through new digital media technologies such as virtual reality, engine animation, motion capture, image recognition, and speech synthesis; they do not exist as material entities [1]. A virtual idol is a virtual persona that conducts idol activities with its own virtual settings and creative output. Unlike real idols, the personality, activities, and popularity of virtual idols rely more heavily on UGC (User Generated Content) for improvement, making them closer to fans.

Some researchers claim that online virtual idols can replace real people and provide emotional value, citing examples such as the AI virtual idols and synthetic anchors Luo Tianyi and Du Xiaoxiao. However, we have observed that very few people actually develop emotional attachments to virtual idols. Even within the online anime community, known for its two-dimensional culture, there is no profound emotional sustenance for early virtual idols. In contrast, the A-SOUL network virtual idol group, established through motion capture technology with “people in the middle,” has generated deep empathy among netizens, creating a stark contrast in public opinion. The fundamental difference between these “people in the middle” and purely online virtual idols is that the former have real staff as the core of their stage performance.

This observation raises several questions: Why are netizens more likely to resonate emotionally with virtual idols that have “people in the middle” behind them? Will netizens behave differently depending on whether they interact with “people in the middle” or artificial intelligence? What explains this phenomenon, and what are its root causes?

## 2.1 A Literature Review on Quasi-Social Interaction Theory

The theory of “quasi-social communication” was proposed by psychologists Horton and Wall in a 1956 article published in the journal *Psychiatry* to describe the relationship between media users and media characters. The theory suggests that certain audiences, particularly television viewers, tend to develop attachments to their favorite characters and form imaginary interpersonal relationships. Because these relationships share certain similarities with real social interaction, they were termed “quasi-social interaction” [2].

With the development of social networks, research on quasi-social relationships has proliferated. Current foreign research focuses primarily on the characteristics of quasi-social communication behaviors. McGuire et al. found that quasi-social interaction often occurs during television viewing and identified two basic functions: companionship and identity.

At present, Chinese research on quasi-social communication remains primarily theoretical. Regarding the characteristics of quasi-social interaction, Zheng Peijuan (2015) argues that quasi-social relationships are constructed through

long-term, continuous communication and interaction between people and media figures. With the advancement of social media, quasi-social communication has acquired new characteristics, and unilateral communication now has the potential for two-way interaction [3]. Scholar Ge Jinping found that research on quasi-social interaction can be roughly divided into three dimensions: cognition, attitude, and behavior [4]. In quasi-social communication, Zhang Jie and Fang Jianqian (2009) believe that the rules of electronic media scene communication are similar to social rules in real life, but the communication objects in this new scene become virtual characters, breaking both the spatial distance limitations of real interpersonal communication and the familiarity constraints of communication partners [5]. The structure of internet information flow has shaped a new type of quasi-social communication. However, these studies do not address whether online virtual idols can achieve emotional resonance with netizens from the perspective of quasi-social communication.

## 2.2 Literature Review of Virtual Idol Interaction with Fans

Liu Shengzhi conducted a comprehensive analysis of virtual idol worship among young people from the perspective of utopian experiments in intimacy, pointing out that virtual idols enter fans' hearts through the genuine emotional interaction of the "people in the middle," which brings intimate relationships with fans closer through shared abilities and methods [8]. Liu Shengzhi and Shi Bingrong proposed that virtual idols bring happiness, companionship, and encouragement to fans, becoming their emotional sustenance and psychological dependence. Fans actively support their idols in realizing their dreams while gaining a sense of accomplishment and participation themselves [7]. Professor Yu Guoming believes that virtual idols themselves are "a new type of communication medium with its own relationship attributes" [9] and applies emotional design theory to analyze virtual idols and their interactive relationships with fans [11]. Beyond these theoretical analyses, other scholars have conducted empirical research on virtual idol fan groups. For instance, Tian Yinzi studied the interaction between fans and virtual idols [10], while Li Jia and Chen Feiyang argue that there exists a "shout-style" quasi-social relationship between fans and virtual idols, where "the fan group constructs identity through the cultural practice of creating regenerative texts and relational imaginaries spread through specific symbols" [8].

## 2.3 Research Questions

This paper conducts qualitative research from the perspective of intimacy establishment between fans and virtual idols to explore the following core questions: Why can fans establish intimate relationships with virtual idols? What does this intimacy mean for fans? What forces and influencing factors operate behind this intimacy?

### 3.1 Research Hypotheses

From the perspective of quasi-social communication, the quasi-social communication object becomes a virtual character, breaking the spatial distance limitations of real interpersonal communication and the familiarity constraints of communication partners. As social robots gradually affect human life, extending quasi-social communication theory to this new research object has practical significance. Different interaction patterns between people and virtual idols in live broadcast rooms affect emotional projection, and whether virtual idols have “people in the middle” behind them influences their capacity to cause emotional resonance. Different stage performance styles also affect emotional projection.

Based on these assumptions, we propose the following hypotheses:

**H1:** The more emotional responses a virtual idol provides, the more emotion people will project onto them.

**H2:** The better the stage performance of virtual idols, the more emotion people will project onto them.

**H3:** Compared with pure virtual idols, people will project more emotion onto the “people in the middle.”

**H4:** Virtual idols with “people in the middle” will elicit more projected emotion than virtual idols without them.

This paper employs online ethnography and in-depth interviews as research methods to address these questions.

### 3.2 Network Ethnography

Network ethnography is a new research method born from the rapid development and widespread application of the Internet, based on participatory observation of online communities. Since the research object of this paper—virtual idol fans—actively participates in idol-related information interaction on major social platforms daily, this paper adopts the ethnographic operation mode of observation, ethnographic recording, and theoretical analysis to draw conclusions.

Specifically, from April 2023 to August 2023, we conducted participatory observation on community platforms with large numbers of highly active virtual idol fans: Bilibili (B 站), Douyin, Baidu Tieba, and Weibo super-topic communities. The main observation objects included: (1) the dynamics, video bullet comments, and comment sections of A-SOUL and its members on Bilibili and Douyin, as well as those of UP 主 creators making secondary content; and (2) the Weibo super-topics and Baidu Tieba forums of A-SOUL and its members.

#### 3.2.1 Study Object Selection

Since the research object of this paper is virtual idol fans who actively participate in idol-related information interaction on major social platforms, and given the large number of virtual idols available, this paper selects the representative A-SOUL network virtual idols as the primary research object. The selection is

based on A-SOUL's current leading position and extensive influence in China's virtual idol industry.

### 3.3.1 Interview Participant Selection

Since real-time interaction between virtual idols and fans occurs primarily through live broadcasts on platforms concentrated on Douyin and Bilibili, this study takes the audience of the official Bilibili live broadcast room of virtual idols as the total sample and selects some fans for interviews.

### 3.3.2 Interview Outline

1. Have you learned about virtual idols? How did you meet your virtual idol? How well do you know virtual idols?
2. Will you interact with virtual idols? What was your most memorable interactive experience?
3. Would you rather interact with a virtual idol or with the “person in the middle” of the virtual idol? Which would you rather have an emotional conversation with? Why?
4. What do you think of the emotional responses of virtual idols? If a virtual idol provides more emotional responses, will it make you more willing to interact with them? Will it increase your liking for them?
5. What do you think is the most attractive aspect of virtual idols?
6. What do you think of the stage performance of virtual idols? Does the stage presence of virtual idols affect how much you like them? How much impact does it have?
7. If the “person in the middle” of the virtual idol changed, would you still like them?
8. Would you rather interact with a virtual idol with a “person in the middle” behind it or with a purely virtual idol? What type of virtual idol would you rather interact with and communicate emotionally with? Why?

## 4 Research Findings and Discussion

This study uses in-depth interviews to theorize the phenomenon of emotional resonance of online virtual idols from a quasi-social communication perspective and attempts to answer the research questions. The findings reveal that virtual idol companionship and emotional communication reduce social loneliness among netizens to a certain extent.

One respondent noted: “When Jiaran first livestreamed, fans in the circle were disgusted, posting a large number of malicious attacks, and it was even difficult to find normal interactive messages. But Jiaran still insisted on completing

the 3-hour live broadcast and dancing 20 house dances in a row, striving to present a diligent, innocent, cute, and caring image that encouraged fans” (S1). Another observed: “Virtual idols are virtual, definitely more perfect than real idols, whether in image or skills, such as singing and dancing. They can do things that are difficult for real people and add mysterious virtual effects, like glowing or something. The A-SOUL anniversary live broadcast featured an effect of flying swords” (S2). A third respondent reflected: “Maybe it’s because I’m emotional, but I think the most attractive thing is the bond between them. You communicate with them, share with each other, encourage each other when sad and uncomfortable, face difficulties together, be happy together when joyful, and inform each other of learning results. This kind of two-way rush is really reassuring” (S3). Finally, one participant stated: “What really makes these virtual idols go to the hearts of fans is the interaction of the true feelings of the people in the middle. If the people in the middle debuted as real people, I feel that I would not chase them anymore. But if, as some say, virtual idols are ‘dehumanized,’ I feel that I can’t accept it—how can a machine have people’s real emotions?” (S4).

#### 4.1 Emotional Resonance Under Quasi-Social Interaction

The study found that the more emotional Q&A interactions virtual idols provide, the more people are willing to interact with them, primarily due to empathy and companionship. This represents a gift from the virtual idol to the fan group and an emotional connection that builds a virtual field through long-term companionship. In internet spaces, virtual idols interact with fans and respond appropriately to fans’ imagined interactions, allowing fans to “gain” remote intimacy. Although virtual idols remain “physically absent” in real situations, relying on the personal field constructed by social media, the emotions between virtual idols and fans develop toward intimate relationships characterized by care, trust, understanding, interaction, and commitment. Although the quasi-social relationship is one-way, fans can feel a deeper emotional connection from it.

Fans in quasi-social relationships first perceive virtual idols as real people. Second, during live broadcasts, they are more inclined to interact with them as friends, believing that the idols are talking directly to them and providing companionship. This quasi-social relationship is warm and simultaneously empowering for fans.

#### 4.2 The Establishment, Transmission, and Consolidation of Empathy

People are more willing to interact with virtual idols that have “people in the middle” behind them and prefer emotional exchanges with such idols. The primary reason is that what truly makes these virtual idols reach fans’ hearts is the genuine emotional interaction of the people in the middle and their ability to foster intimacy through empathy. Taking A-SOUL network virtual idols as the main research object, we can examine the case of Jiaran crying—an event

particularly significant because the virtual avatar at that time did not have a “crying” action template. Virtual idols cannot shed electronic tears.

The person in the middle gives the virtual idol its soul and brings it to human life. Everyone knew she was crying, enabling stronger emotional resonance. The positive image of hard work, innocence, cuteness, and care for fans, conveyed through interpretation, gives virtual idols a humanized core and provides emotional value to fans. The people in the middle are real human beings who lack the sense of distance typical of the internet. Therefore, fans regard the person in the middle as the soul of the virtual idol and view the virtual idol as a companion and leader in their own lives. It is this empathy and respect from virtual idols that impresses fans, forming a relationship of “two-way rush” and “common feelings” built on trust and commitment.

#### 4.3 Stronger Emotional Identification in Virtual Idol Culture

Virtual idols are artificial objects that tend toward perfection based on technology and imagination. They bring about the democratization of idols and change the relationship between fans and idols. Idols can be public figures who enjoy the public space of fan worship while simultaneously becoming private objects for fans in their personal sphere. Fans are given more space to participate in idol creation and the right to make their own choices, no longer passively participating in the idol worship process in a one-way manner. This enhances fans’ emotional identification and belonging to virtual idols. In the traditional idol manufacturing system, the right to create idols remains firmly in the hands of production companies. However, in the open model of virtual idol creation, this right is ceded to the fan base. Fans can project their own stories and emotions into the creation of derivative content such as songs, fandoms, and dances. In this process of self-projection, fans not only gain emotional satisfaction but also shape their ideal selves and develop their sense of self-identity. This process increases fans’ loyalty to virtual idols and strengthens fan stickiness.

## 5 Summary and Reflection

This study uses in-depth interviews to theorize the phenomenon of emotional resonance of online virtual idols from a quasi-social perspective and attempts to answer the proposed research questions. The findings indicate that netizens are more likely to experience emotional resonance with virtual idols that have “people in the middle” behind them and are more willing to interact with these individuals. This is primarily due to empathy and companionship—a gift that virtual idols bring to the fan group and an emotional connection that builds a virtual field through long-term companionship.

This study proposes a quasi-social perspective that reflects the development of emotional resonance phenomena between online virtual idols and netizens. On the other hand, it also provides a new research direction for examining whether social media can generate emotional communication among netizens in

the context of empathy in contemporary China. However, it is worth noting that this study also finds that examining emotional resonance of online virtual idols from a quasi-social perspective reveals negative impacts, particularly the aggravation of emotional emptiness among netizens. This is something that warrants vigilance and reflection.

Under the pattern of global communication, the importance of social media is self-evident, and the establishment, transmission, and consolidation of empathy within it have become new research topics. In-depth study of this topic will provide new explanations for emerging changes in empathy theory in the internet era. However, due to limitations in interviewee selection, this study's arguments are incomplete and potentially unrepresentative. Future research in this field from a quasi-social perspective may need to pay greater attention to virtual idols and whether artificial intelligence and netizens can generate new forms of emotional phenomena.

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