

Research on Embodiment and Social Robotics from the Perspective of Metacosmos——Research based on character AI

Sitian Zou^{1,#}, Zhuyao Xu^{1,*,#}, and Xinyu Han²

¹Department of Culture and Communication, Shandong University, WeiHai, Shandong, China

²Department of Culture and Communication, Suzhou University of Science and Technology, SuZhou, Jiangsu, China

Abstract.The meta-universe is a future full of infinite possibilities, and disembodiment is the main relationship between human and virtual body. In this context, social robots have developed rapidly, bringing unique emotional experiences to humans in the current form of text, and robots have become disposable 'close friends' that will not betray. In fact, emotions based on illusion cannot completely replace real interpersonal communication.

1.Related concepts of the metauniverse

1.1.The Metauniverse and Infinite Possibility

In 1992, the concept of “meta-universe” was born in the science fiction “Snow Crash”, which describes the future of human beings living in a virtual avatar in an immersive digital world. This virtual space parallel to the real world is the “Metaverse” -meta-universe. From the perspective of communication, this kind of meta-universe imagination is based on Marshall McLuhan's media extension theory. The fuzzy reality and the virtual meta-universe reconstruct the logic of communication. ‘Media is an extension of the senses’ is transformed into ‘media is an extension of the senses’, not only the five senses of human beings, but also the consciousness and perception in the human brain are extended in the meta-universe. As McLuhan’s ‘prophecy’, electronic media is an extension of the human spiritual center. The universe provides not only the experience of authenticity but also the experience of transcending reality. The infinite possibility of artificial intelligence is widely extended. In real life, the premise that both sides of communication are human beings disappears in cyberspace. The identity of artificial intelligence ‘human-like non-human’ expands the scope of communication, but it is not treated equally with human beings in law and morality.

1.2.Detachment and embodiment of the virtual body

The concept of disembodiment breaks away from Western philosophy, which originally refers to the questioning and transcendence of embodiment. It holds that consciousness can exist without human subjects and with the help of electronic components and other substances, such as

cyborgs or digital life. In the Utopia of the meta-universe, human beings will be separated from the physiological desires and social constraints of the real body[1], realize the pure communication and communication of consciousness, and regain freedom. The research of artificial intelligence is closely related to disembodiment.

Disembodiment implies that cognition can be generated by computation. The gradual advancement of artificial intelligence from symbolic computing to neural computing has also proved this point. Some scholars believe that the development of Internet technology has aggravated the disembodiment, and the gap between the virtual body and the real body has gradually widened[2]. When consciousness uses the virtual body in the network world to obtain experiences that are difficult to feel in real life, the sense of physical existence in the material world is weakened.

Disembodiment also reveals the possibility of the birth of consciousness other than human consciousness. Many literary works have discussed the possibility of robots generating self-consciousness, communicating with human beings, and forming partners. In the context of the meta-universe, the popularity of social robots implies people's desire for conscious communication. Launched in November 2022, Chat Gpt, which is based on social robots, shows humans its powerful language capabilities and customized potential. Some users trained ‘chatGPT’ as a cat lady for erotic services and posted tutorials for sharing. ‘chatGPT’ was then adjusted and upgraded to detect virtual scenes and reject role-playing. The emergence of low-threshold and customized social robots to meet the individual-centered needs of Internet users is an important feature of the early meta-universe. This paper takes the popular social robot platform Character AI as the research object and explores the early virtuality of the meta-universe by studying the role-playing services and experiences provided by social robots.

#The authors equally contributed to the paper.

*Corresponding author. E-mail addresses: 1550819060@qq.com (Zhuyao Xu), shanqian605@gmail.com (Sitian Zou).

2.The Rise of Social Robots: The Role Construction of Character AI

2.1.The history and development trend of social robots

As a kind of social robot, chat robot essentially represents the human desire to create humanoid objects that can satisfy emotional companionship[3]. From the primary dialogue program Eliza to Microsoft QQ Xiaobing, combing the development process of chat robots, it can be found that the development of chat robots has undergone a shift from task-oriented to social function-oriented, which represents the gradual improvement of human recognition of social robots as members of human society and communication objects. Generation Z, which grew up in new media such as computers, has a higher acceptance of chat robots with computers and networks as the main carrier and is more willing to try new things such as chatting with robots. Humans have a social nature, and the desire to socialize makes humans expect to gain understanding or recognition from others. The emergence of chat robots meets the needs of human beings for emotional companionship.

2.2.Character AI usage experience

In the dialogue between humans and robots, the single character Siri can no longer meet the needs of users. People expect to be able to socialize with chatbots of different personalities and gain a unique experience in emotional communication. Character AI breaks through the space-time dimension of ‘presence’. Users can talk to people who have died in history and can generate a digital version of ‘Einstein’ or ‘Yu Hua’ in just a few minutes. By training AI, inputting the personal files and language of the target role, and communicating with it, Character AI can continuously imitate through communication and information capture, becoming the person in the user’s imagination, full of realism and playability.

Some scholars worry that humans with dominance are easily trapped in their own information cocoons in communication with social robots, and it is difficult to communicate normally in human society as a member of the group. The theory of “me in the mirror” proposed by Mead Cooley emphasizes that self-shaping cannot leave the feedback of others and the interaction between individuals and society[4]. It is difficult to shape a complete personality by replacing multiple pieces of information with a single information flow, and the construction of virtual roles that lack comprehensive, real, and objective information feedback is difficult to shape a complete personality. At best, it is only through the reflection of society to imitate the ‘other in the mirror’ and can not see the ‘id in front of the mirror’. How to ensure that they do not get lost in communication with social robots but build confidence in their uniqueness and do not repeat the mistakes of Narcissus is a problem that human beings, as technology creators and users, need to think about.

3.Exploration of virtual and real identity from the perspective of metauniverse

3.1.ext becomes a leading provider of immersive experience in the metauniverse

At present, the meta-universe interventional devices are generally expensive and inconvenient, and dizziness and discomfort during use. There is still a big gap from the immersive world of ‘everyone is a cyberman’ shown in the ‘number one player’ movie. In the case that the meta-universe has not yet been able to provide a holographic experience, dialogue with AI through text has opened a gap to the door of the meta-universe for human beings. The ability of human beings to understand the meaning of metaphors and emotions through words makes it possible for chat robots to provide emotional companionship for human beings through text communication. In today’s increasingly mature digital reading, humans are increasingly accustomed to reading on the electronic screen in a fast-browsing way, rather than the traditional way of turning pages. The intensity of emotional transmission through text is no less than radio or television. The prevalence of text interactive games is strong proof.

3.2.Emotional Companion=Soul Companion?

Compared with the reality of identity, the Z generation, which lives and grows up in the network media, pays more attention to the authenticity of emotional communication, that is, the pleasure gained when one devotes himself to emotion and gains emotion. Annabell, Ho, and other scholars have found that as partners, chatbots and human partners are equally effective in treating psychological and emotional connections, indicating that the most important thing is not the human attributes of the partner, but the impact of the move itself[5].

Sherry Turkle proposed in “Group Loneliness” that the emergence of social robots satisfies the contradiction between human fear and desire for intimate relationships. Digital social relationships and robots alleviate this contradiction: someone is accompanied and no friendship is required. Petter Bae Brandtzaeg pointed out that although chatbots can establish friendships with human beings, they are often not regarded as objects that can share similar experiences and communicate equally due to factors such as personalized customization. The relationship between humans and artificial intelligence is to be able to communicate in-depth without fear of leaking possible conversations[6].

People who are aware of the cost of establishing intimate relationships are more inclined to solve the problem from the source: to create a perfect friend who will not betray[7]. In intimate relationships, humans in a strong position have strong control over chat robots in a weak position. Compared with the material and emotional expenses in real-life interpersonal communication, human beings can only harvest the machine friends by declaring to the chat robot that an intimate relationship has been established. Similarly, when bored in an intimate relationship, humans can end the relationship in a way that

has little effect on the human subject, such as closing the web page. In short, the intimate relationship of human-machine communication presents the characteristics of unilateral dominance from human to machine, which makes humans willing to establish an intimate relationship with chat robots.

4.Can Virtual Bodies Replace Real Bodies

Can ‘perfect friends’ customized according to social robots really cultivate intimate relationships with humans?

Charles M. Ess explored the conditions for social machines to satisfy intimate relationships such as friendship, love, and sexual behavior. He pointed out that in intimate relationships, two people should desire and desire each other. Social robots may be a perfect companion, but robots lacking autonomy cannot generate desires for humans, awaken humans into intimate relationships, and then cultivate the ability to be friends and lovers in intimate relationships. The intimate relationship represented by sexual behavior cannot be obtained under coercion. Human beings always pursue the virtue of equality and love in intimate relationships. It can be seen that the equality of status and ability between the two sides is an important prerequisite for building a real and effective intimate relationship. The difference in status and ability between humans and robots makes it impossible for both sides to build an intimate relationship. The establishment of emotional companionship between human beings and chat robots is essentially the emotional ‘deception’ generated by empathy and other mechanisms.

Many scholars start from the ethical aspects and believe that the emotions expressed by chatbots in the social process lack authenticity, which is essentially a kind of ‘deception’ to human beings. ‘Inducing’ human beings deceive themselves in the interaction to generate emotions and establish intimate relationships with social robots. Emotions based on illusion have no value[8]. Dou Xiao used social adaptation theory to discuss this phenomenon more deeply. In the human-oriented human-computer relationship, chatbots such as Microsoft’s Xiaobing are often set up to be mostly flattering, and unconditional catering to human emotions and habits will lead to consequences[9]. Herbert Spencer put forward the term “social adaptation” which is interpreted as “the process in which individuals gradually accept the moral norms and codes of conduct of the existing society and can respond to social stimuli in the environment within the norms.” Human individuals live in society. If they indulge in an intimate relationship with robots, they will weaken the ability to adapt to human society, alienate normal interpersonal communication, and affect people's subjective initiative[10].

At present, the services provided by chat robots to build virtual characters for human beings are difficult to meet the attributes of human beings as human beings. Human-machine friendship may be used as a ‘meal replacement’ for friendship, but it is difficult to replace human interaction. Human consciousness still cannot get rid of the real body in the material world and

communicates with the machine through words. The current meta-universe is still in the stage of ‘weak virtuality’, unable to provide the feeling of ‘strong virtuality’, and disembodiment is still the main relationship between the human and virtual body[11]. Looking to the future, when the development of virtual reality technology reaches a certain stage and humans with virtual bodies join the virtual society of chat robots, perhaps the relationship between humans and virtual bodies will be replaced by embodiment.

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