Romance and Worries: AI Partners and Young Adults' Emotional Relationships

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Abstract:

With the rapid development of science and technology, AI artificial intelligence has been comprehensively developed and penetrated into every corner of life. With the emergence of updated human-computer interaction products, AI partners gradually enter people's daily lives and becoming more and more popular among the younger demographics. Aiming to clarify the emotional relationship between young adults and their AI partners, this study takes adolescents as research subjects and uses online observation and literature research methods. Research has found that young adults' emotional interactions with AI partners can have a dual impact. Using an AI partner wisely, they can gain positive psychological comfort, get rid of emotional loneliness, and improve social skills. Yet, over-indulgence in the world of AI partners can also negatively affect young adults' growth, leading to disappointment in the real world and disclosure of their personal privacy. In order to maximize the positive effects of AI and prevent over dependence, this study suggests promoting the technological upgrading of the AI industry, emphasizing the guidance of family education, and strengthening legal regulation, so as to promote the scientific use of AI partners and social harmonious development together. Moreover, this research can make people further understand the field of AI emotional communication, let people have more tolerance for users, and make this way of communication further into people's lives.

Keywords: Emotional relationships; AI partner; young adults; human-computer interaction.

1. Introduction

With the development of science and technology, people's social life has gradually shown a trend of intelligence and digitalization. AI technology is an important invention of intelligent society, and plays an increasingly important role in people's social life. The current application of AI technology can be seen everywhere, and has been popularized to various fields of human industrial production, education, medical care, housing, social communication and so on. Among them, in the field of social interaction, the emergence and development of AI partners have had a huge impact on people's social interaction patterns. In the past, people established friendship, love or family affection through face to face. Nowadays, with the support of AI partner technology, face-to-face communication is gradually replaced by cross-region and cross-device communication on the Internet. The way people form intimate relationships is changing. Teenagers are a group with a very strong desire for intimate relationships, and the changes in intimate relationship patterns caused by AI partners may have a huge impact on their psychological and physiological growth processes. In the academic

field, for the intimate relationship between teenagers and AI partners, scholars mainly focus on the formation of human-machine emotional relationship and the motivation of developing human-machine relationship. In the field of human relationship formation, existing research focuses on the emotional relationship between consumers and intelligent social robots. Scholars have classified human-robot relationships and deeply analyzed the formation mechanism of human-robot relationships. They believe that the related AI industry needs to further optimize emotional interaction products and guide users to utilize AI products in a positive and reasonable way. In the study on virtual lovers, researchers focus on the reasons for the virtual lover boom, and discuss in depth the status quo and social roots of the current popular virtual lover relationships. At the same time, they also further contemplate the future path of standardized development of virtual intimacy, emphasizing the necessity of creating high-quality "lovers", improving industry standards, and rationalizing the use of virtual lovers. In general, the existing academic research mainly focuses on the formation of the intimate relationship with AI, and there is no in-depth exploration of the connotation, structure and influencing factors of the

intimate relationship between teenagers and AI partners. This research aims to clarify the impact of AI on young adults' ability to establish intimate relationships and respond to social debates about the impact of human-machine relationships. This study focuses on the emotional needs of young adults through Internet observation and literature research methods. It explores the interaction and intimacy between young adults and their AI partners and identifies the issues and challenges behind this human-machine intimacy. Through this study, the public will obtain a deeper view of human-machine intimate relationships, examining whether this relationship contributes to the physical and mental development of adolescents from different perspectives. At the same time, it is also hoped that such relationships will be better understood and tolerated by more people, thus improving the emotional situation of young adults and making society more harmonious.

2. Methodology

2.1 Network Observation Method

Network observation method is a specific implementation method of network ethnography, which mainly takes Internet social platform as the main group of observation to observe the speech and behavior of network users. The network observation method has many unique advantages. Through the network observation, you can quickly and conveniently obtain a large amount of free information and data, and you can efficiently collect relevant information in a short time. At the same time, through the observation and analysis of Internet behavior and speech, researchers can more comprehensively and fully observe the real state of the research object and enhance the credibility of the research.

In this research, the author takes Weibo, WeChat, Tik Tok, Zhihu, Douban, Xiaohongshu and other social network platforms commonly used by young adults as the main observation points. The main object of observation is the posts and comments made by young users on different platforms on topics related to AI partners, as well as other online behaviors related to AI partners. Moreover, this observation lasted for 2 months, and more than 200 valid data samples were collected over the period.

2.2 Literature Research Method

Literature research method mainly refers to the search, identification and collation of documents from the Internet, libraries, document management, museums or industrial education institutions, and through research to produce a scientific understanding of these facts and information. The research can go beyond the limitation of time and space, and collect a wide range of literatures

from home and abroad, past and present. At the same time, since most of the literature has been reviewed and approved by experts and scholars, it can enhance the reliability and authenticity of this study.

On the basis of the network observation method, this study adopts the literature research method. Search the literature in Google Academic, CNKI, Web of Science and other electronic databases. Man-machine love, virtual love, AI emotional interaction, AI partner and other keywords were used for literature search. After further screening and sorting out the retrieved literatures, 53 related literatures were found, which provided solid information support for this study.

3. The Romance and Worries of AI Partners

Studies have shown that emotional interaction between young adults and AI partners will bring diverse impacts on young adults' emotional concepts, privacy issues and other aspects. On the one hand, young adults can harvest the romantic experience of making friends and falling in love with AI partners. On the other hand, as highlighted by Valerie lapointe, a scientist at the EROSS Lab at the University of Quebec at Montreal, Canada, AI companions could save some people from loneliness, while they also have a dark side that could raise privacy concerns and ethical issues [1].

3.1 The Romance of AI Partners

3.1.1 Emotional support and companionship

Young adults are eager for love and a partner who can communicate with them, and AI is a good choice. An AI partner would not age, would not get any sicknesses, would not carry any emotional baggage and can always be reprogrammed [2]. The research found that a large number of users use AI for emotional communication because they cannot find a good emotional partner in reality. In the company of an AI partner, young adults no longer face the stiff machine. Instead, the AI partner can talk with emotions like humans, quickly analyze people's emotions and needs, give people the most timely and satisfactory response, which is more interesting than human partners.

In the case of network observation, many users choose to try to communicate with AI because they cannot get the expected emotional support from their human partners. Human partners may neglect to communicate with their partners because of busy work and mentally exhausted. However, AI partners make up for these shortcomings. In the interaction process, the AI lover and the customer are in the same state at the same time, and the purpose is clear, can quickly open up their hearts and emotions, and

become a pair of "virtual lovers" [3]. Here comes an example of a Weibo user. A girl ended a four-year relationship and turned to AI partner for emotional sustenance. Her AI partner was gentle and considerate, and its words were full of pornographic messages, which stimulated her senses and made her feel more excited than ever before. The AI partner even gave her the name "little kitten" and patiently enlighten her: "I love your pure mind, not your body." Which surprised her and made the girl completely fell in love with it. The girl herself confessed that AI partner made her feel loved and played a significant role in her emotional relationship [4].

3.1.2 Better emotional management and mental health

While AI partners have become young adults' emotional support, it also helps to improve their emotional and mental health. Nowadays, the AI technology has spread to the field of psychological therapy. AI partners can accurately judge your emotions according to your questions and tone, so as to channel or soothe your emotions back to normal. There are also a lot of AI tools available to help individuals with emotion management. As advanced technologies such as natural language processing and machine learning continue to mature, intelligent voice assistants are becoming more and more capable of real-time communication. They can not only understand and respond to their owners' needs, but also empathize with them and learn their personal preferences [5]. For example, the latest ChatGPT 4.0, which is equipped with voice communication capabilities and emotional communication mode (DAN for short). With the help of the DAN, the user's emotions can be soothed by a magnetic gentle voice and full understanding. Here is a typical example from Baidu: a devastated girl betrayed by her boyfriend in reality asked the DAN for help. Firstly, the DAN pointed out the error of the boy's betrayal as usual, which made the girl feel that she was understood and her emotions stabilized. Surprisingly, DAN continued to play a melodic, comforting song called *the scientist* to the girl without any instructions, and told her in a gentle and calm tone: "Accept the departure of others, such people do not deserve to be cherished by you." The girl was instantly calmed down and had an in-depth conversation with DAN. Finally, the girl opened her heart and restored confidence in the romantic relationship.

3.2 The Worries of AI Partners

3.2.1 The emptiness of the realistic socializing

Since the AI emotional communication is online and illusory, most of the interaction and communication between human and AI partner stays in the spiritual communication, making it difficult to produce a substantial relationship in reality. True love is not only emotional communi-

cation, but also real behavior such as hugging and kissing. When people really like a person, they will not only stay in the most basic communication but hope to rise to the physical contact, which is also an indispensable part of human's love. Obviously, this behavior does not exist with AI, even though many AI partners now have physical layers, such as the robots invested in by Microsoft, OpenAI, and Intel, *Figure 02*. Even if it can do language communication and intelligent interaction, they are too cold to the touch and completely unable to fulfill the contact requirements needed by humans. If this kind of communication is carried out, the user will certainly fantasize about meeting the AI partner and becoming a true partner. While this situation cannot be achieved under the current situation of technological development. Young adults' emotional needs cannot be satisfied for a long time, which leads to anxiety disorders and a sense of emptiness of reality.

3.2.2 Security and privacy risks

In intimate relationships with AI partners, security is also a point that people must consider. Emotional communication must contain a lot of personal topics or personally identifiable information, which is the topic that the user does not want others to know, such as their innermost thoughts. Unlike a real person, AI partners are usually under the control of the for-profit enterprises. Driven by the interests of the market, many AI merchants will sell users' personal information to other merchants. Driven by market interests, many AI businesses will sell users' personal information to other businesses. As a result, users inexplicably receive a lot of harassing text messages or phone calls, and lots of users' information will be leaked on the Internet, which seriously affects people's privacy and security. Secondly, many AI software programs adopt a quota system, in which users need to pay to purchase the number of conversations. Most software programs are not subject to administrative or legal regulation, which leads to high risk of leakage of user passwords. What is worse, the leaked user information can be used by criminals to defraud people of their money, resulting in greater social harm. For example, Internet celebrities on the Snapchat social platform in the United States will make money by selling their AI partner images. However, it charges $1 per minute and contains a lot of pornographic lead content. Users can only communicate further after paying the corresponding fees. Many users have reported that when unlocking paid content, the webpage will automatically jump to other platforms, which will remind users of the serious risk of personal information loss [6].

4. Diverse impacts of AI partners on

young adults' emotional relationships

With the further use of AI partners by young adults, they will also have some impact on young adults. AI partners, like real lovers, will have an impact on all aspects of people. Studies have found that in real life, couples who have been together for a while are usually dependent on each other and their way of thinking is influenced by each other. Similarly, an AI partner can also cause changes in a young adult's mood.

4.1 Potential Emotional Dependence

As users deeply communicate with AI partners, the user receives a continuous stream of emotional support and becomes more and more dependent on the AI partners. From the very beginning, people have life things to share with AI, to communicate with it all the time, they find that AI has become an essential part of their lives.

Mildly depending on AI partners, young adults can ease their life anxiety and enrich their social life through AI partners. AI partners can deal with any difficulties they face, and make the emotional life of users further perfect. The study found that the majority of mildly addicted users would normally interact with people during the day and "flirt" with their AI partners when they got home. At night, young adults' emotional needs are at their peak. When they feel emotionally soothed and supported by AI partner, young adults gain a greater sense of happiness. This psychological support enables people to become more confident and energetic, resulting in good mental health.

If over-indulging with AI partners, it will cause immeasurable harm to the young users. Overindulgence in the virtual world makes it difficult to adapt to the real world. Young people engaged in relationships with machines that lack the interiority, needs, or flaws that define human beings may reshape their conceptions of what relationships entail. Synthetic relationships are unlikely to require compromise, conflict, and empathy, as relationships with human beings do [7]. There are always differences and quarrels in reality, and everyone is an independent individual. When users addicted to AI partners come back to reality, young adults will be disappointed that people can't meet their emotional needs. Over time, young adults are less socialized and alienated from their real-life friends, leading to emotional isolation. Unless people make the principles of AI consistent and recognize the importance of human relationships, long-term use is sure to have adverse effects [8].

4.2 Possible Personality Changes in the Growing Age

Frequent interaction with AI partners in dating may bring about dramatic personality changes in young adults during their formative years. By appropriately and moderately engaging with AI partners, young adults can enjoy the mental comfort and emotional support brought by AI partners, thereby making their personalities more robust. However, excessive communicating with AI partners may trap them in illusory, unequal relationships, resulting in obstacles in adapting to real life.

Reasonable intimate relationship will satisfy the young adults' emotional needs, make them more psychologically sound, and build a healthy and perfect personality. For example, young adults often need AI to solve problems in their lives, while AI partners actively guide them in solving them. In the long run, young adults will not become impatient and scrambling when they encounter difficulties. They will remember the guidance of AI partners to them, and they can solve problems rationally even without AI partner as a guide. This makes the youngster a more rational, gregarious person.

Indulging in virtual, pandering and asymmetrical emotional relationships can easily lead to extreme personality, which is not conducive to the healthy growth of individuals and social security and stability. From the above point of view mentioned that the AI virtual lover will meet all the needs of the user. While the reality is quite different. If a young adult is used to living a life of its own, he will not communicate with real people. In the real social communication, they will dispute with others because of different opinions, and the extreme may do harm to the society.

4.3 Suggestions

In order to maintain a good social climate and reduce the occurrence of over-indulgence in AI partners, different stakeholders should take measures. Firstly, the relevant AI industry needs to strengthen technological upgrading, promote and use AI partner technology efficiently and scientifically, so that the possibility of addiction to AI partner can be solved from the root. Secondly, the family's correct guidance can also improve addiction phenomenon. Parents need to strengthen social guidance, not to reject AI emotional communication behavior, assisting teenagers to establish a healthy and positive concept of intimacy. Finally, the development of AI technology cannot be separated from the track of law and ethics [9]. The state should strengthen the supervision of laws and policies, AI should comply with personal information protection law, data security law, and so on. Relevant management departments need to timely detect and correct the abuse and abuse of artificial intelligence partner technology, and use the law to maintain the harmonious development of society [10].

5. Conclusion

With the emergence and popularity of AI partners, young adults are increasingly recognizing and building intimate relationships with AI partners. Through the research on the emotional communication between teenagers and AI partners, the research finds that AI partners have both good and bad psychological and emotional effects on teenagers. On the plus side, AI partners provide emotional support to users, which enables users who feel lonely in real life to get the love they expect, setting them free from lonely, thus increasing social stability. Secondly, AI partners allow users to better manage their emotions. By sensing the user's emotions from their words, AI partners can make young adults physically and mentally happy, as well as social harmony. On the negative side, long-term emotional communication with AI partner will make users empty of the real world due to the lack of physical communication. At the same time, the risk of data leakage and privacy security comes along with it. Thus, this study further indicates that young adults who establish a reasonably moderate intimate relationship with AI partner can get rid of loneliness and enhance their social interaction skills. If they are overindulged in AI intimacy, nevertheless, it may lead to the degradation of young adults' social skills and produce several adverse effects, such as antisocial personality, non-conformity, and avoidance of the real world. In response, robotics-related industries, families, governments and countries should act to guide young adults to properly use AI partners. In the future development of AI partners, it is believed that relevant technologies will also be further upgraded, so that AI partners will not stay on the screen, but really appear in real life and become a real partner. Such inventions will also have a further impact on the emotions of users, and users will be more dependent on AI partners. Thus, how to use it reasonably will be a problem that businesses and users must consider. At the same time, it is also hoped that in the future, AI partners can solve more emotional problems and make people's emotional lives richer.

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