



The Impact of Deepfake on Chinese Female Social Media Users

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Abstract. Non-consensual deepfake face-swapping pornographic material has inflicted significant harm on women globally. Given China's distinct culture, legislation, social media platform systems, the discussion and distribution of deepfakes is not coordinated with other countries. This lag presents a unique challenge for female users of Chinese social media. It is important to note that Chinese female are also clearly victims of deepfakes, and there have been numerous documented examples of victimization in China. As a result, the authentic feedback and narrative perspectives of Chinese female users on deepfakes are very significant. This study uses semi-structured qualitative interviews to explore the impact of deepfake content on emotional responses and behavioral choices of Chinese female social media users, as well as whether they have coping measures. It analyzes female users' responses to AI technology and provides a narrative viewpoint on Chinese women as potential victims of deepfake. Research suggests that female participants experience significant anxiety, vigilance, and rejection in relation to deepfake pornography. This has a negative impact on their online social behavior, including increased skepticism of online content and disengagement from digital platforms. In addition, two paradoxes were found in research interviews with female respondents. These two paradoxes are also the reasons why there is little discussion about deepfake content on Chinese social media and exacerbate the vicious cycle of AI exploitation.

Keywords: Deepfake, Woman, Social Media, Harm, Artificial Intelligence.

1 Introduction

The proliferation of synthetic media is a result of the quick development of Deepfake (Deep Learning-based Fake) technology. Despite detection system improvements, deepfakes continue to pose substantial hurdles. Misuse of deepfakes can lead to non-consensual pornography targeting women, spreading misleading information, and influencing politics [1]. They seriously invade personal privacy, cause severe psychological trauma to the victims, and may trigger social unrest [2]. Deepfakes can generate artificial emotional contagion by exploiting the way individuals express feelings towards one another. They significantly undermine decision-making abilities by leveraging emotional manipulation, cognitive biases such as confirmation bias, and eroding

trust in information sources [3]. Deepfake technologies produce cognitive dissonance, public mistrust, and a social trust problem by blurring the border between real and fake content [4]. The legal framework for artificial intelligence is still significantly lagging behind, making victims feel even more helpless and insecure [5].

Many academics contend that deepfake technology disproportionately targets women and uses them as resources. With 99% of victims being women, deepfakes have become a new type of gender-based violence [6]. Most deepfake images and videos on the internet are explicit and created without authorization. Laffier and Rehman state that it primarily affects women and damages their reputations [7]. Deepfake technology has made online bullying and abuse worse. It is often used to invade people's privacy and get money from them by using pictures to scare women [8]. The victims lose their autonomy and freedom because of this type of technological abuse. Women's bodies are oppressed, resulting in significant anxiety and embarrassment [9].

Deepfakes emotionally manipulate female victims, affecting them in real life and online [9]. This makes them shun online and offline social encounters [8]. Deepfakes reinforce the gender dichotomy between persecutor and victim, and this production and consumption is primarily driven by cisgender men. Victims of women become involuntary material. Deepfakes continue the long-standing practice of objectifying the female body under the male gaze, reflecting the underlying power gap [9,10].

Women are more afraid of being victims of deepfakes than men [11]. However, the media is often more concerned about national security risks caused by disinformation, information manipulation, and political interference [12]. The media has paid little attention to the harmful effects of involuntary deepfake on women. This shows the neglect of the female perspective.

Scholars emphasize that deepfakes are widely used to suppress female vocalization. This has several negative consequences, including increased worry and physical discomfort in women [13]. However, the research focused on news media, social media content, or text analysis, with limited individual feedback. Given the phenomenon of "explanatory injustice", where victims lack appropriate language to describe their experiences [13]. Therefore, focus on the narrative and emotional expression of potential victims. This longitudinal study is valuable.

Chinese female users face unique challenges. Due to political and legal differences, there have been no major face-swapping defamation incidents against female candidates in China. As a result, deepfakes and their social impact are poorly understood. China's culture and social platform system hinder the conversation about deepfake pornography. This reduces public awareness of the negative effects of deepfake pornography. Chinese users are exposed to more non-pornographic deepfakes. While these videos do not involve nudity, they often contain social discipline, gender stereotypes, and deceptive emotional manipulation. Due to the lag in response measures, such AI videos are usually exempt from punishment. Such fake videos subtly erode viewers' autonomy and negatively impact female users' self-esteem and self-confidence [14].

However, the harm of deepfakes knows no borders or social status [5]. It's not just malicious actions against politicians or celebrities. Countless Chinese women have fallen victim to deepfake technology. Individuals' limited awareness of deepfakes does not mean they are completely unvictims of objectification. Conversely, low digital

literacy and critical thinking skills exacerbate the unfair exploitation of vulnerable populations.

In summary, the lack of feedback from women's perspectives and the obstacles posed by the Chinese context suggest that the discussion of Chinese women's perspectives is worthwhile [15]. Therefore, this study proposes the perceptions and reactions of Chinese female social media users to deepfake content. This article includes semi-structured in-depth interviews with female respondents. Discuss the psychological impact of deepfake technology on them. Investigate their emotional reactions and reactions to deep fakes.

2 Methodology

This paper uses a qualitative research approach. Through semi-structured interviews, individual information is studied in a targeted manner. This in-depth interview format can better identify respondents' emotions and attitudes towards deepfakes, allowing them to better express their opinions.

2.1 Sampling Strategy

In this study, six qualified Chinese female social media users were interviewed using purposive sampling. Select the appropriate information provider through the pre-screening questionnaire.

2.2 Data Collection

All data were collected through one-on-one interviews (online voice, video, or text). Each interview lasted at least one hour, with an average of 90 minutes per participant. Respondents watched or were told about deepfake content in the interview, answering questions around AI technology.

2.3 Participant Selection

Potential participants get an eligibility screening questionnaire, ethics and informed consent forms from this project. Upon a potential participant's consent to participate in the study and completion of the questionnaire, they will be subjected to additional screening based on the submitted information. The participant's country and place of residence, gender, age, greatest level of education, daily social media usage time, current city of residence, occupation, and other pertinent information are all included in the pre-screening survey.

The following criteria are required for screening.

First, female participants must be between 18 and 40 years old. They must have a bachelor's degree or above, as well as permanent residency in mainland China. Choosing an adult woman with a bachelor's degree or higher ensures that respondents have a basic level of education and digital literacy. The level of higher education is positively

correlated with the level of digital literacy [16]. Selecting respondents with high education will help this study gather valid information.

Second, participants must be high-frequency social media users. All major Chinese social media platforms are included, such as Weibo, Xiaohongshu, Douban, Bilibili, Douyin, Kuaishou, etc. Respondents must have spent at least three hours on any social media site. People who use social media frequently are more likely to encounter deepfake videos. This also ensures that their emotional and cognitive responses are more representative and valuable.

Third, women from the general population were chosen rather than victims of deepfakes or well-known internet celebrities. Because it aiming to understand how female audiences perceive and respond to this technology and its associated risks. They are more likely to reflect and express the challenges commonly faced by female social media users within the Chinese context.

Employees of social media platforms, authors of AI-generated films, employees of AI apps, and their close family members will not be allowed to participate to avoid any possible conflicts of interest.

After meeting the above basic criteria, information such as the potential respondent's city, occupation, and education level was further screened to increase the likelihood of obtaining information from diverse sources.

2.4 Stimulus Materials and Selection

This study employs some video materials and deepfake cases to assist the interviews. These cases involve real or reported deepfake incidents on Chinese social media. All examples and videos are sourced from Chinese social media sites and are not created by the researcher.

The interview first starts with entertainment's AI video, and then discusses deepfake crime cases with the interviewees, which is more acceptable to the interviewees. Therefore, interview materials are mainly divided into the following two types:

A. Entertainment and potentially influential deepfake videos

These videos serve entertainment purposes or possess potential influences, including those that may contain bias, discipline, or evoke sympathy. This deepfake video frequently appears alongside the real footage, making it more difficult for viewers to determine authenticity. They have a powerful influence on their audiences. Furthermore, because of the entertainment value of this type of film, the audience subtly diminishes the authenticity requirements of online content. This enhances the harmful impact of deepfakes.

B. Criminal utilization of deepfake technology

In these examples, deepfake face-swapping technology is used in blatantly unlawful acts like fraud, infringement, pornography, or other criminal transactions.

Both inside and outside of China, female victims are involved in these crimes. Both the general public and celebrities are among these victims. In order to help respondents understand the extent and immediacy of their influence, the material concentrates on instances of Chinese women being taken advantage of by deepfakes (Researcher will

not display any related videos; they will only show excerpts of news descriptions or case narratives to participants).

2.5 Ethical Considerations

Informed consent was obtained from all participants, including consent for supplementary information collection during the second interview. To ensure participants' confidentiality, all individuals were assigned anonymous names, and strict commitments were made to protect participants' anonymity and the confidentiality of their interview data.

The AI-generated videos and news materials provided during interviews did not include any actual videos of deepfake pornography incidents. The study is without any real victim information, which protects their privacy and lowers the risk of them being traumatized again.

3 Result

This study included six female participants, all of whom met the mandatory screening criteria. They came from different professional backgrounds. Two participants were aged 18–29, and four were aged 30–40. Two participants held bachelor's degrees, while the remaining four possessed postgraduate degrees. While two participants had long-term residence in Shanghai, the other four came from different cities across China, including first-tier, second-tier, and third-tier cities.

3.1 Impact on Emotions

Although the degree of concern varied, all six interviewees expressed vigilance and aversion toward deepfake videos. Some participants described feeling eerie or uncomfortable when watching deepfake videos, though some of them found it difficult to articulate these sensations in words. Others directly expressed that AI videos appeared overly artificial and clearly manipulative, with a strong intent to influence viewers.

“This feeling is deliberately provoking emotions, trying to attract attention.” (Respondent B01)

“It's so deliberate, like I'm being domesticated.” (Respondent Y02)

Regarding cases of deepfake pornographic face-swapping, six respondents expressed significantly stronger feelings of discomfort, concern, and anger. They strongly condemned and expressed disgust toward the malicious use of this technology. Most respondents immediately associated the issue with their own situations, fearing they might become the next victims of deepfake technology.

“If I were to become a victim of a deepfake pornographic video, I'd feel like committing suicide.” (Respondent Y01)

“It's truly disgusting. Such news makes me feel anxious, as I also enjoy posting my photos on social media platforms.” (Respondent B01)

Five respondents expressed hope that Chinese laws will be quickly updated to provide appropriate controls and penalties for AI technology. Another responder (Y03) stated that AI technology needed incorporated ethical principles to regulate and alter it on a technical level.

3.2 Impact on Behavioral Decision-Making

This study found that respondents had cognitive confusion in the face of deepfakes. Half of the respondents felt that they are more uncertain about online information due to the development of AI technology.

“I feel that this kind of information is overwhelmingly present in social media feeds, making it extremely difficult for us to discern what's credible.” (Respondent Y03).

All six respondents said their social media activities would be affected. Five stated that they would be more cautious—or completely avoid—sharing personal information and images online in the future. The sixth respondent (B01) indicated that she would drastically modify her images until they were unrecognizable before uploading them. She said:

“When posting photos on social media platforms, one needs to be more vigilant. I can use facial blurring or combine makeup with photo editing to achieve a look significantly different from my actual appearance.”

3.3 Personal Coping Strategies

When asked about individual methods to cope with criminal technologies such as deepfake pornography, most respondents indicated that there may be no effective countermeasures available. However, their reasons varied and could mainly be categorized into two types. One respondent (B02) still believes that AI technology remains at the stage of entertainment and therefore sees no need for preventive measures. The other group (Y02, Y03, Y04) recognizes that deepfake has advanced to a point where it no longer requires the consent of the individuals involved. As potential victims, women no matter how much they strengthen their personal vigilance, will still be insufficiently protected. This is not an issue that victims alone can resolve or resist by themselves—regardless of legal or societal cultural factors.

“I believe that becoming a victim is an unavoidable reality. Although this may sound negative, voyeurism was already prevalent everywhere before to the introduction of AI.” (Respondent Y03)

“I am really not sure what ladies should do now. Because this issue cannot be handled by individual woman or even a small group of women increasing their awareness—it is just impossible to effect serious change.” (Respondent Y03)

Half of the respondents (Y02, Y03, Y04) emphasized the importance of female autonomy in psychological coping strategies. They noted that the employment of deepfake technology in pornography is inextricably tied to patriarchal society and misogyny. For decades, Chinese women have been constrained by traditional standards about chastity and sexual shame, leaving them especially vulnerable to AI technology. It will

be a long and hard road ahead, but they all hope that women will find their own strength, accept their femininity, and deal with technical issues.

“Psychologically recognize your own agency and courageously defend your rights even if falsely accused; behaviorally enhance your ability to discern and stay informed about recent developments in AI technology.” (Respondent Y04)

Additionally, five respondents stated they would improve their digital literacy and critical thinking skills. They aim to actively participate in shaping technological development.

“My view remains that women should actively engage with these advanced technologies, learn them, and understand them. We shouldn't reject them simply because they might lead to negative outcomes. It's like saying you must get seated at the table before you can enjoy the good dishes.” (Respondent Y03)

4 Discussion

4.1 The Paradox of Low Digital Literacy and High Confidence in AI

During the interview, two respondents (B01, B02) were unable to recognize the deepfake video. Respondent B02 specifically said that even if she knew about the widespread application of artificial intelligence, she would not question the information she encountered on social media. This finding aligns with the findings of Ahmed, which showed that people with lower cognitive abilities tend to be less skeptical of content on social media [17].

Interestingly, these respondents were very confident in their judgment, believing they would not be deceived or influenced by deepfakes. This high level of self-confidence is very different from other respondents. However, the other four respondents clearly had higher digital literacy abilities. This illustrates a paradox: people with lower digital literacy are instead more confident in their ability to resist AI manipulation.

Research also suggests that an individual's mood, judgment, and coping skills can be influenced by their level of digital literacy. Respondents with different levels of digital literacy differ significantly in their understanding of deepfake technology. Their emotional state and cognitive abilities may also influence their decision-making and coping styles [18]. This highlights the importance of promoting digital literacy.

4.2 The Paradox of Public Concern and Private Silence on Deepfake Incidents

All respondents were high-frequency users of Chinese social media. They spend at least 3 to 4 hours a day on social media, and some even spend more than 9 hours a day. They have hardly seen deepfake content on Chinese social platforms, especially news or discussions about deepfake pornographic face-swapping exploiting women.

A small number of respondents mentioned hearing of such cases in South Korea and the United States. But their knowledge of these events and deepfakes is limited. They believe that such incidents only involve female celebrities and have never heard of cases involving the general public. This has led them to mistakenly believe that deepfake

pornography has moved away from their lives and that AI technology is still used for entertainment and creativity.

Ironically, while the majority of respondents expressed strong disapproval and upset about deepfake pornography, five respondents declined or hesitated when asked if they would be willing to spread it on social media and remind people of the dangers of deepfakes.

Their reasons vary. Some people (B01, B02) consider these issues too far from their personal lives. Others (Y02, Y03) are concerned that the discussion and dissemination of deepfakes may inadvertently increase the likelihood of malicious use of deepfakes.

The scarcity of deepfake-related content on Chinese social media platforms reflects socio-cultural factors and personal choices.

Additionally, the majority of respondents (B01, B02, Y01, Y04) said they intentionally filter out AI content on social media sites. As a defense mechanism, some do this to reduce the likelihood of manipulation caused by AI [17]. However, this behavior also further limits the spread of AI on Chinese social media. Their knowledge of deepfake technology will also decline.

5 Conclusion

The study shows that there is very limited discussion about deepfake content, especially deepfake pornography, on Chinese social media. This is influenced by a variety of factors, including Chinese laws, political structures, platform algorithms and institutions, social culture, and personal choices. It is difficult for this situation to change in the short term. Respondents showed considerable vigilance and aversion to deepfakes. Deepfakes have a negative impact on their emotional state and behavioral decisions. Although respondents have varying levels of digital literacy, they generally show a relatively positive attitude towards technological challenges.

In conclusion, deepfakes have lagged significantly behind in the spread and discussion on Chinese social media. Respondents in the study shared their true views on deepfake technology, which helps to better understand the perspective of female audiences in the Chinese context. This social media and sociocultural context may influence audience perceptions of AI, which could worsen the situation of prospective deepfake victims who are ignored.

Future research might investigate whether the dissemination of deepfake content on social media has improved, as well as long-term follow-up surveys of female audiences to see if their opinions change in reaction to changes in the social media environment and self-perception.

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