

Digital Personality and Social Interaction: Exploring the Effect of Weibo AI Character Accounts in Communication and Marketing Activities

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Abstract:

This research sheds light on the key role of AI role accounts in communication and marketing strategies by exploring how user behavior and brand marketing influence Three Kingdoms AI character accounts on Weibo. The findings indicate that high-quality content significantly enhances user stickiness and purchase intention, while emotionally resonant and interactive content cultivates sustained user engagement with AI accounts. In addition, accurately targeted marketing content not only increases user engagement but also directly amplifies product promotion effectiveness. In light of these results, it is recommended that AI character account designers enrich character backgrounds, enhance interaction capabilities, and offer personalized content aligned with the character's persona. This study addresses a gap in research on AI character account applications in social media and offers empirical evidence for brands seeking to leverage AI accounts for effective marketing campaigns. The study suggests that future AI accounts should make interactions smarter, improve user experience, and build stronger emotional connections. This will help brands promote more effectively and keep users engaged longer.

Keywords: Brand Personification; Brand Marketing; Artificial Intelligence; Consumer Behavior; Social Media.

1. Introduction

As the AI technology develops rapidly, AI personas are becoming more active and personalized virtual characters on social platforms, such as Weibo. These AI character accounts on Weibo play an important

role in the user interaction and also in the brand marketing and business conversion. There appear a significant volume of AI accounts created by the platform, including historical characters, classic literary characters, and life service AI accounts. These AI accounts, may facilitate the education and entertain the

users with the interaction with them. Moreover, merchants can utilize AI accounts to promote their related products and services, such as several accounts of the Three Kingdoms characters to promote the newbie tour based on the theme of the Three Kingdoms and some life counseling AI accounts to promote the fee-paying psychological testing software.

From early-stage conversational AI—for instance, commercial chatbots on social media such as Facebook Messenger, who mainly interact with users through private conversations—to Weibo AI character accounts—who simultaneously interact with users through one-on-one communications and spread influence through public conversations and comments, the evolution of AI character accounts can be traced. It increases the interactivity among users since the AI not only has a one-on-one conversation with a user but publicly communicates with multiple users. Moreover, it enables viral dissemination of topics, which is important for brands to leverage these AI character accounts to promote their brands. AI technology can both increase consumers' satisfaction with automated customer service and strengthens consumer loyalty to the brand [1]. Likewise, this AI technology has gradually permeated social media platforms and addresses user needs with information and entertainment content, as seen in the Weibo AI character accounts.

Accordingly, generative AI-driven narrative marketing is becoming a key pathway to achieve branding and promotion. Generative AI can generate personalized stories and ad content based on user behaviors and preferences in real time, which can effectively improve the accuracy and conversion of advertisements [2]. AI can analyze user behavior and preferences and generate personalized stories and ad content in real time to effectively improve the accuracy and conversion of advertisements. Especially on the Weibo platform, this type of AI-driven narrative marketing helps brands to realize high-efficient customer engagement and become a trend of brand marketing in the future.

In addition to online social media platforms, the AI character account also demonstrates promise in the luxury and hospitality sectors. Immersive AI offers personalized experiential services in virtual and augmented reality, improving the exclusivity and engagement of customers [3]. Weibo's AI character accounts have also borrowed this idea. For instance, the AI accounts of the characters in Three Kingdoms effectively enhance the cultural and educational elements and entertainment in the interaction between users and the AI accounts by realistically restoring the characters' personalities and background stories.

In consideration of the cultural sensitivity, designers in the AI age should consider how to adjust the AI technology

according to users from diverse cultures. To customize the personalized characters according to the requirements in the global marketplace, the AI account should adjust their expression to offer culturally sensitive and inclusive content [4]. AI character accounts on the Weibo platform interact with users in an emotional means by imitating celebrities, historical figures, or literary characters with cultural backgrounds. Such a practice renders the emotional experience deeper and users more satisfied.

This study is conducted from four different perspectives to explore the application of AI character accounts in social media. This study analyzes why AI character accounts can satisfy users' needs, increase brand loyalty, raise brand awareness, and encourage purchase behaviors. At the practical level, the study not only offers corresponding strategies for brands to apply AI character accounts in personalized branding but also demonstrates how to establish an emotional connection with users through historical and cultural backgrounds. In terms of the social level, the study demonstrates the potential of AI character accounts in cultural communication, indicating that users gain an entertaining experience by interacting with historical characters and achieve deep cultural understanding. At the technological level, it demonstrates the prospects of generative AI and immersive AI in AI character accounts, showing the development direction of the technologies of personalized content generation and emotional interaction, which can offer a reference for the future development of AI technologies.

Considering the Three Kingdoms AI character account on Weibo as case study to explore its influence on user behavior and brand marketing, this paper collects users' feedback on user experience, engagement, and behavioral intention towards the AI accounts with a structured questionnaire. This study will seek to offer specific strategies for brands to leverage AI accounts for marketing, such as strengthening users' emotion experience and interactive experience, as well as guidance for future AI character accounts and applications.

2. Research

2.1 Research Design

The purpose of this study is to explore the usage experience and its effects on followers of Weibo's Three Kingdoms AI character accounts. By employing a quantitative approach, the author collects data on various aspects of user engagement, satisfaction, and behavioral intention through a structured questionnaire.

2.2 Research Method

The research method is questionnaire research based on in-depth interviews and surveys. The followers of Weibo Three Kingdoms AI character accounts. Specifically, this survey focuses on sampling from the community, chat groups, super talk, and Three Kingdoms bot submission marketing accounts related to Weibo Three Kingdoms since these are the actual users of the AI accounts who have exhibited relevant experience in utilizing the AI accounts, hence their feedback on the questionnaire can truly reflect the attraction and influence of the AI accounts on the users. The questionnaire was designed to obtain respondents' demographic information, user behavior, and perceptions of AI content.

There are several parts to the questionnaire. It attempts to understand the age, occupation, and other information of the respondents. This part can reflect the characteristics of the participants and analyze the effect of the demographic characteristics on the behavioral intention and satisfaction. It explores the number of AI accounts the respondents have followed, the corresponding period, and the frequency of interactions (e.g., liked, commented, retweeted). This part can identify the user's behavioral characteristics and involvement extent. It enquires the respondents whether they are satisfied with the content of the AI accounts and whether the content brings emotional value such as pleasure or nostalgia. This part evaluates the users' perceived and emotional reaction to the content. It probes whether the respondents are willing to buy Three Kingdom products due to the content of the AI accounts and whether they are willing to continue to follow these AI accounts.

The questionnaire design is to explain the experience of users interacting with Weibo's Three Kingdoms AI character accounts, to test which factors (e.g., satisfaction with the content, frequency of interaction) can significantly affect users' behavioral intent (e.g., purchase intention, willingness of following), and to understand how demographic characteristics, behavioral engagement, interaction experience, and privacy perception impact users' satisfaction and behavioral choices.

To assess the questionnaire's reliability, Cronbach's Alpha coefficient was employed. The resulting value of 0.899 suggests a robust internal consistency and dependability across the questionnaire items.

The collection of questionnaires was facilitated through the Questionnaire Star platform. This platform was selected for its ease of use, convenient QR code-based online distribution, and robust back-end data processing capabilities, which effectively met the data collection and analysis requirements of this study. The survey gained a

total of 172 responses, with 157 of these being classified as valid. The validity criteria were based on comprehensive and logical completion of the questionnaire; only those with all questions fully answered were considered valid. Questionnaires containing numerous repetitive or clearly inconsistent responses (e.g., indicating zero current AI character account follows while simultaneously expressing an intention to continue following such accounts) were considered invalid. The screening process incorporated both automated and manual methods to eliminate questionnaires that failed to meet the established standards. Initially, the Wenjuanxing platform's built-in logic detection tools automatically filtered out evidently non-compliant and invalid submissions (e.g., incomplete or duplicate responses). This was followed by a manual review of the remaining questionnaires to verify the consistency and authenticity of the answers provided. The necessity for manual checks arose from the fact that several invalid questionnaires might have eluded the automated screening process while still containing unreasonable response patterns (e.g., selecting identical answers across all questions). This situation necessitated additional human scrutiny to ensure the integrity of the data collected.

The data collected was analyzed utilizing SPSS software. To determine the key factors affecting user engagement, satisfaction, and behavioral intentions, researchers employed multiple regression analysis. This analytical approach comprised the following:

Outcome Measures: Users' stickiness to the Three Kingdoms intellectual property, their willingness to maintain engagement with the AI account, enthusiasm for introducing additional AI characters, and intent to purchase Three Kingdoms-related merchandise inspired by the AI account's content.

Independent Variables: Age, occupation, number of AI accounts followed, duration of following, interaction frequency, emotional value, privacy perceptions, and content satisfaction.

2.3 Research Hypotheses

H1: Content satisfaction is significantly positively correlated with user stickiness, purchase intention, willingness to continue following, and expectations for new AI accounts.

H2: The duration of following is positively correlated with user stickiness, purchase intention, willingness to continue following, and expectations for new AI accounts.

H3: The emotional value brought by AI account content is positively correlated with user stickiness, purchase intention, willingness to continue following, and expectations for new AI accounts.

H4: There is a certain correlation between the frequency of interaction with the AI account and user behavioral intent.

H5: User perceptions of privacy issues will influence their willingness to purchase related products.

3. Research Results

3.1 The Impact of Factors on User Stickiness towards the Three Kingdoms IP

Table 1. Analysis of the effect of age, occupation, number of AI accounts followed, duration, and content satisfaction on user stickiness to the Three Kingdoms IP

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.41	0.92	0.360	-
Your age	0.12	1.15	0.252	1.68
Your occupation	-0.13	-0.91	0.366	1.61
Number of Three Kingdoms AI character accounts you follow	0.12	1.08	0.281	1.35
Duration of following Three Kingdoms AI accounts	0.16	1.65	0.102	1.24
Overall satisfaction with the content posted by Three Kingdoms AI accounts	0.58	6.64	0.000**	1.11
Sample size	157			
R ²	0.305			
Adjusted R ²	0.282			
F	F(5,151)=13.284,p=0.000			
* p<0.05 ** p<0.01				

Table 2. Analysis of the effect of emotional value, interaction frequency, interaction experience, privacy issues, and marketing content on user stickiness to the Three Kingdoms IP

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.09	0.33	0.740	-
Do you feel that the content from these AI accounts has brought you emotional value? (such as feelings of joy, nostalgia, etc.)	0.23	2.70	0.008**	2.31
How often do you interact with these AI accounts (such as commenting, sharing, liking)?	0.15	1.96	0.052	1.80
What is your overall experience of interacting with these AI accounts?	0.13	1.32	0.188	1.96
What are your thoughts on the issue of AI accounts invading user privacy?	0.00	0.08	0.935	1.18
Has the marketing content posted by AI accounts increased your interest in Three Kingdoms-themed products?	0.48	6.97	0.000**	1.58
Sample size	157			
R ²	0.580			
Adjusted R ²	0.566			
F	F(5,151)=41.760,p=0.000			
* p<0.05 ** p<0.01				

The results of the parameters obtained from the regression analysis in Tables 1 and 2 demonstrate that age, occupation, number of AI accounts followed, time of following, frequency of interaction, interactive experience, and perception of privacy issues do not produce a statistically significant effect on the effect of respondents' stickiness to the Tri-State IP ($p > 0.05$), whereas the users' satisfaction with the content published by the Tri-State AI accounts, the amount of positive emotional value brought to the users, the extent to which the marketing content enhances the users' interest in the product, all significantly and positively affect the respondents' stickiness to the Three Kingdoms IP ($p < 0.01$).

Content satisfaction represents the first significant factor, with users' overall appreciation of the Three Kingdoms AI account's posts strongly correlating with their stickiness to the Three Kingdoms IP (regression coefficient: 0.58, $p < 0.001$), i.e., higher user stickiness with the AI account's content corresponds to a stronger connection to the Three

Kingdoms IP.

The second influential factor is emotional value, which also exhibits a significant positive effect on user stickiness (regression coefficient: 0.23, $p = 0.008$). Users who experience more intense positive emotions, such as joy and nostalgia, while engaging with the AI account tend to form a stronger stickiness with the Three Kingdoms IP.

Marketing content constitutes the third significant factor, with AI account-published promotional material significantly enhancing users' stickiness to the Three Kingdoms IP (regression coefficient: 0.48, $p < 0.001$), i.e., effective marketing content enhances users' stickiness.

In light of these findings, focusing on enhancing AI account content quality and cultivating users' emotional engagement appear to be crucial strategies for strengthening user stickiness and boosting the market appeal of related products.

3.2 The Impact of Factors on the Marketing Effectiveness of AI Accounts

Table 3. Analysis of the effect of age, profession, number of AI accounts followed, duration of follow-up, and content satisfaction on the marketing effectiveness of AI accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	-0.60	-1.11	0.269	-
Your age	0.18	1.38	0.169	1.68
Your profession	0.23	1.29	0.200	1.61
How many Three Kingdoms AI character accounts do you follow?	0.06	0.49	0.628	1.35
How long have you been following Three Kingdoms AI accounts?	0.29	2.57	0.011*	1.24
What is your overall satisfaction with the content posted by Three Kingdoms AI accounts?	0.53	5.06	0.000**	1.11
Sample size	157			
R ²	0.281			
Adjusted R ²	0.257			
F	F(5,151)=11.813,p=0.000			
* $p < 0.05$ ** $p < 0.01$				

Table 4. Analysis of the effect of emotional value, interaction frequency, interaction experience, privacy issues, and marketing content on the marketing effectiveness of AI accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.39	1.06	0.291	-
Do you feel that the content from these AI accounts has brought you emotional value? (such as feelings of joy, nostalgia, etc.)	-0.05	-0.43	0.665	2.31

How often do you interact with these AI accounts (such as commenting, sharing, liking)?	0.18	1.76	0.081	1.80
What is your overall experience of interacting with these AI accounts?	-0.06	-0.43	0.667	1.96
What are your thoughts on the issue of AI accounts invading user privacy?	0.01	0.16	0.871	1.18
Has the marketing content posted by AI accounts increased your interest in Three Kingdoms-themed products?	0.78	8.24	0.000**	1.58
Sample size	157			
R ²	0.443			
Adjusted R ²	0.424			
F	F(5,151)=24.007,p=0.000			
* p<0.05 ** p<0.01				

The regression analysis results presented in Tables 3 and 4 indicate that user satisfaction with the Three Kingdoms AI account's published content and the extent to which marketing content has piqued product interest significantly and positively influence respondents' purchase intention Three Kingdoms-related products ($p < 0.01$). In addition, the duration of attention positively affects respondents' intention to purchase these products ($0.01 < p < 0.05$). However, factors such as age, occupation, emotional value, interaction frequency, interaction experience, and privacy concerns do not exhibit statistically significant effects ($p > 0.05$).

First, content satisfaction plays a crucial role. Users' overall satisfaction with the content published by the Three Kingdoms AI accounts significantly affects purchase intention (regression coefficient of 0.53, $p < 0.001$), i.e., as users' satisfaction with AI-generated content increases, their intention to purchase Three Kingdoms-related prod-

ucts grows stronger.

Second, attention duration also contributes positively to purchase intention (regression coefficient of 0.29, $p = 0.011$), i.e., the more time users spend engaging with the AI accounts, the more likely they are to consider purchasing Three Kingdoms-related merchandise.

Third, marketing content exerts the most significant effect on purchase intention (regression coefficient of 0.78, $p < 0.001$), i.e., effective marketing material has the potential to significantly enhance users' purchase intention.

In light of these findings, focusing on improving AI account content quality, extending user engagement time, and developing effective marketing strategies are essential approaches to encourage the purchase of Three Kingdoms-related products.

3.3 The Impact of Factors on Users' Willingness to Continuously Follow AI Accounts

Table 5. Analysis of the effect of age, occupation, number of AI accounts followed, duration, and content satisfaction on users' willingness to continue following AI accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	-0.03	-0.08	0.939	-
Your age	0.18	1.74	0.084	1.68
Your profession	-0.25	-1.73	0.085	1.61
How many Three Kingdoms AI character accounts do you follow?	0.38	3.47	0.001**	1.35
How long have you been following Three Kingdoms AI accounts?	0.20	2.13	0.035*	1.24
What is your overall satisfaction with the content posted by Three Kingdoms AI accounts?	0.61	7.12	0.000**	1.11
Sample size	157			

R ²	0.419
Adjusted R ²	0.400
F	F(5,151)=21.808,p=0.000
* p<0.05 ** p<0.01	

Table 6. Analysis of the effect of Emotional Value, Interaction Frequency, Interaction Experience, Privacy Issues, and Marketing Content on Users’ Willingness to Continue Following AI Accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.11	0.37	0.710	-
Do you feel that the content from these AI accounts has brought you emotional value? (such as feelings of joy, nostalgia, etc.)	0.27	2.77	0.006**	2.31
How often do you interact with these AI accounts (such as commenting, sharing, liking)?	0.19	2.20	0.030*	1.80
What is your overall experience of interacting with these AI accounts?	0.11	1.00	0.318	1.96
What are your thoughts on the issue of AI accounts invading user privacy?	0.25	3.79	0.000**	1.18
Has the marketing content posted by AI accounts increased your interest in Three Kingdoms-themed products?	0.34	4.38	0.000**	1.58
Sample size	157			
R ²	0.553			
Adjusted R ²	0.538			
F	F(5,151)=37.300,p=0.000			
* p<0.05 ** p<0.01				

The regression analysis results presented in Tables 5 and 6 indicate that several factors significantly affect respondents’ willingness to maintain attention to the Tri-State AI account. Specifically, the number of AI accounts followed, user satisfaction with content published by the Tri-State AI account, emotional value derived, perception of privacy, and the extent to which marketing content enhances product interest all exhibit a significant positive effect on respondents’ willingness to continue paying attention to the Tri-State AI account ($p < 0.01$). Besides, the duration of attention and frequency of interaction demonstrate a moderate positive effect ($0.01 < p < 0.05$). In contrast, age, occupation, and interaction experience do not exhibit statistically significant effects on the willingness to sustain attention ($p > 0.05$).

First, the number of AI accounts followed has a significant positive effect on users’ willingness to continue to follow Three Kingdoms AI accounts (regression coefficient = 0.38, $p = 0.001$), i.e., the more AI accounts users follow, the more willing they are to continue to follow these AI

accounts.

Second, the duration of following has a positive effect on users’ willingness to continue following the Three Kingdoms AI accounts (regression coefficient = 0.20, $p = 0.035$), i.e., the longer a user follows an AI account, the more willing they are to continue following it.

Third, content satisfaction significantly and positively affects users’ willingness to continue following the Three Kingdoms AI accounts (regression coefficient = 0.61, $p < 0.001$), i.e., the more satisfied users are with the content published by these AI accounts, the stronger their intention to continue following them.

Fourth, emotional value positively affects users’ willingness to continue following the Three Kingdoms AI accounts (regression coefficient = 0.27, $p = 0.006$). This means that the stronger the emotional experiences (e.g., pleasure and nostalgia) users derive from utilizing the Three Kingdoms AI accounts, the more willing they are to continue following them.

Fifth, interaction frequency also increases users’ intention

to follow (regression coefficient = 0.19, $p = 0.030$), i.e., the higher the interaction frequency between users and AI accounts, the stronger their intention to follow.

Sixth, concerns regarding privacy influence the willingness of users to continue following (regression coefficient = 0.25, $p < 0.001$), i.e., the less users worry about privacy infringement by AI accounts, the more likely they are to continue following them.

Seventh, marketing content can derive differentiation. Specifically, AI accounts' marketing content has a significant positive effect on users' willingness to continue

following (regression coefficient = 0.34, $p < 0.001$), i.e., effective marketing content can significantly enhance users' intention to continue following AI accounts.

Therefore, improving the affective value of AI accounts, increasing the frequency of user interactions, increasing the number of AI accounts followed, enhancing users' sense of privacy security, and designing appealing marketing content can all be effective in increasing users' willingness to continue following.

3.4 The Impact of Factors on Users' Expectations for the Introduction of New AI Accounts

Table 7. Analysis of the effect of age, occupation, number of AI accounts followed, duration, and content satisfaction on users' expectations for the introduction of new AI accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.19	0.45	0.654	-
Your age	0.15	1.44	0.151	1.68
Your profession	-0.22	-1.55	0.123	1.61
How many Three Kingdoms AI character accounts do you follow?	0.28	2.67	0.009**	1.35
How long have you been following Three Kingdoms AI accounts?	0.17	1.89	0.061	1.24
What is your overall satisfaction with the content posted by Three Kingdoms AI accounts?	0.62	7.42	0.000**	1.11
Sample size	157			
R ²	0.397			
Adjusted R ²	0.377			
F	F(5,151)=19.892,p=0.000			
* $p < 0.05$ ** $p < 0.01$				

Table 8. Analysis of the effect of emotional value, interaction frequency, interaction experience, privacy issues, and marketing content on users' expectations for the introduction of new AI accounts

Variables	Regression coefficient	t-value	p-value	VIF
Constant	0.49	1.60	0.111	-
Do you feel that the content from these AI accounts has brought you emotional value? (such as feelings of joy, nostalgia, etc.)	0.15	1.48	0.140	2.31
How often do you interact with these AI accounts (such as commenting, sharing, liking)?	0.33	3.83	0.000**	1.80
What is your overall experience of interacting with these AI accounts?	0.10	0.87	0.385	1.96
What are your thoughts on the issue of AI accounts invading user privacy?	0.11	1.69	0.092	1.18
Has the marketing content posted by AI accounts increased your interest in Three Kingdoms-themed products?	0.32	4.01	0.000**	1.58
Sample size	157			

R ²	0.488
Adjusted R ²	0.471
F	F(5,151)=28.808,p=0.000
* p<0.05 ** p<0.01	

It can be observed from Table 7 and Table 8 of the regression analysis results that the parameters age, occupation, duration of following, interaction experience, and views on privacy issues have no statistically significant effect on the differential willingness of the respondent to introduce more new character AI accounts ($p > 0.05$). The number of AI accounts that users follow, the frequency of interaction with AI accounts, the satisfaction with the content posted by AI accounts, and the extent of interest in marketing content posted by AI accounts all have a significant positive effect on the willingness of users to introduce more new character AI accounts ($p < 0.01$).

First, the number of AI accounts followed has a significant positive effect on the willingness to introduce more new character AI accounts (regression coefficient 0.28), i.e., a user who followed a larger number of AI accounts is more willing to introduce more new character AI accounts.

Second, the frequency of interaction with AI accounts has a significant positive effect on the willingness to introduce more new character AI accounts (regression coefficient is 0.33 and $p < 0.001$) i.e., users who interact more frequently with AI accounts are more willing to express an affinity for more new character AI accounts.

Third, the overall satisfaction with the content posted by the Three Kingdoms AI accounts has a significantly positive effect on the willingness of introducing more new character AI accounts ($\beta = 0.62$, $p < 0.001$), i.e., the greater the satisfaction with the content posted by the Three Kingdoms AI accounts, the more positive the attitude towards introducing more new character AI accounts.

Fourth, the persuasive effect of marketing content is evident: it can increase users' support of the introduction of more new character AI accounts (regression coefficient of 0.32, $p < 0.001$), i.e., the persuasive content can build users' support of AI accounts for the introduction of more content and characters.

Therefore, increasing the frequency of interaction with AI accounts, improving the satisfaction of content, and enhancing the attractiveness of marketing content are effective means to promote the acceptance of users to more new character AI accounts.

3.5 Hypothesis Comparison

H1: This hypothesis finds support across all models.

H2: This hypothesis receives partial support; while the duration of following significantly affects purchase intention

and continued interest, its impact on stickiness and willingness to introduce new AI accounts lacks significance.

H3: This hypothesis is partially supported; emotional value significantly affects user stickiness and continued interest, but its effect on purchase intention and willingness to introduce new AI accounts is not significant.

H4: This hypothesis finds support.

H5: This hypothesis is not supported.

4. Research Discussion

4.1 Reasons for Hypothesis Comparison Formation

The confirmation of H1 demonstrates that users' contentment with AI-generated content directly affects their stickiness, purchase intention, and sustained interest. This aligns with user behavior theory, which proposes that superior content can spark user engagement and boost their allegiance and behavioral tendencies.

The corroboration of H4 implies that the regularity of interactions significantly and positively affects users' ongoing interest and anticipation for new AI accounts. Consistent exchanges cultivate a sense of engagement and connection, encouraging users to sustain long-term interactions with AI accounts.

H2 finds partial support, as the length of time following an account significantly affects purchase intention and continued interest, but not user stickiness or willingness to explore new AI accounts. This could be attributed to the fact that extended engagement enhances users' reliance on the AI account, increasing their willingness to continue following. However, it may not suffice to change user stickiness or expectations for fresh content. Users might have established fixed interests or habits regarding current content, and the duration of attention may not be the determining factor in their anticipation of new AI accounts.

H3 receives partial confirmation, with emotional value significantly affecting stickiness and continued interest, but not purchase intention or expectations for new AI accounts. This suggests that the enjoyment and emotional value derived from AI accounts are more evident in long-term content consumption. However, emotional value does not necessarily translate into direct purchasing behaviors, as purchasing decisions are likely driven more by practical needs or economic considerations.

H5 is not supported, as privacy concerns do not significantly affect purchase intention. This outcome may be attributed to users prioritizing product practicality, pricing, and brand credibility in their decision-making process, despite the contemporary prevalence of privacy issues. Specifically, users of social media and AI account platforms do not perceive privacy concerns as directly impacting their purchasing behavior. The value and functionality of products appear to hold greater appeal for users compared to privacy considerations.

The result of content satisfaction and the frequency of interaction drives the user behavior expectedly. The result of attention time, emotional value, and privacy concerns is partially supported or unsupported by the hypothesis. These factors affect the user behavior somewhat marginally. They cannot affect the purchasing behavior or long-term engagement with users. The marketers should put forth greater efforts on the quality of the content and the frequency of interaction, while privacy concerns, while important, may not be the primary driving factor for user behavior.

4.2 Recommendations

First, the AI character needs to improve the AI's intelligence to respond to users' natural language input, while natural language processing (NLP) and machine learning technologies improve understanding of users questions and interactions, especially for deep interactions with details to ensure that each interaction is consistent with the setting of the role, hence it can bring users a more realistic and immersive experience [5]. For instance, if users mention a historical event or Three Kingdoms character, the AI can offer accurate background information or discuss related plots.

Second, AI character accounts should enrich the figure's background and generate more personalized content. In addition to mastering the historical background of the figure, AI character accounts should continuously update the relevant content of the figure and penetrate into the personality of the figure, thereby mastering their values, decision-making, and behavioral patterns. Users are more willing to consume content that matches the figure's personality rather than mere historical descriptions. AI character accounts can attract users who have an emotional connection with the figure by deeply analyzing the personality of each figure and publishing the relevant content that matches the figure. For instance, Zhuge Liang's AI account can post more content about wisdom and strategy, while Guan Yu's AI account will post more content related to loyalty and bravery.

Third, the AI character account should offer richer value

in emotional terms; this represents the key to enhancing stickiness. The AI account could improve users' emotional resonance by posting content that better matches users' emotional needs (e.g., humorous dialogues and story clips with nostalgic elements) and by posting content in line with the AI's character image (e.g., through various festivals, historical anniversaries, and other special occasions). Fourth, interactive activities featuring the character's persona can be organized by the operator on a regular schedule to raise the level of user participation. Zhuge Liang can hold "intellectual challenge" quiz competitions, while Cao Cao can host strategic gaming simulations. These activities activate the fan base, strengthen the image of the AI character in the user's mind, and increase user participation. Brand personification can also have a positive impact on trust. By personalizing the brand to resonate with customers, trust is established, which in turn increases loyalty [6].

Fifth, platform operations should continue to strengthen the relevance of marketing content. The marketing content of the AI account needs to be highly relevant to the character image, which will effectively improve the marketing effect. For different roles, different styles of marketing activities can be designed according to the personality traits of the character and the user's expectations. Zhuge Liang's AI account can publicize the puzzle-type Three Kingdoms game product, while Zhang Fei's AI account can publicize the fighting-type Three Kingdoms game product.

Sixth, the transparency of privacy and security issues should be enhanced in platform operation. While the privacy issues in the survey did not produce a significant effect on users' behavioral intentions, privacy issues will become important with the further development of AI accounts. Platforms use differential privacy to anonymize user data during analysis. This protects user privacy while still allowing data collection for platform improvements and profit [7]. The operators of AI accounts should increase the transparency of the process in which users interact with content and information is collected, explain the usage of users' data, and increase users' trust.

4.3 Analysis of Limitations

The limited sample size may have prevented certain hypothesized factors from demonstrating significant effects in the overall model.

The complexity of users' psychological and behavioral factors presents another challenge. Users' sustained attention willingness, purchase intention, and other behaviors are affected by myriad psychological and social influences, which a single variable may not fully explain. More-

over, several hypothesized variables might only indicate their impact in more complex scenarios, failing to exhibit strong correlations in a standalone model.

In addition, the existence of confounding variables cannot be overlooked. Unmeasured or unconsidered factors (e.g., the effect of other social platforms, user acceptance of the AI technology itself) might have affected the accuracy of the findings. These extraneous variables could have influenced several independent variables, thus diluting the expected hypothesized effects.

5. Conclusion

This research sheds light on the significance of AI character accounts in communication and marketing strategies by analyzing user behavior and brand marketing effects in Weibo Three Kingdoms. The findings indicate strong correlations between content satisfaction, interaction frequency, marketing content, and user behavioral intentions. Specifically, enhancing content quality significantly increases user stickiness and purchase intention, while rich emotional value and frequent interactions encourage users to maintain their following of AI character accounts. Moreover, the relevance of marketing content not only influences user engagement but also directly enhances product promotion effectiveness. Therefore, it is recommended that AI character account designers emphasize character background depth, improve intelligent user interactions, and offer more personalized content aligned with the character's image.

The research also explains several factors contributing to the partial or non-validation of certain hypotheses. While emotional value and attention duration exhibit certain effect on stickiness and purchase intention, it was not consistently significant across all scenarios. This variability may be attributed to the diverse and complex nature of user behavior. Specifically, the minimal impact of privacy concerns on users' behavioral intentions suggests that consumers may prioritize product characteristics over privacy considerations in their purchasing decisions.

This study's significance is reflected by addressing the research gap concerning AI avatar utilization in social media while offering empirical evidence for brands to effectively leverage these avatars in their marketing strategies. As AI

avatars continue to evolve, designers should focus on cultivating stronger emotional connections and enhancing interactive experiences for users. The research acknowledges certain limitations, such as the sample size and variable complexity, suggesting that future studies should broaden their scope and investigate additional potential factors.

To enhance the future application of AI avatars, it is advisable to improve the emotional intelligence and interactive capabilities of the content, allowing users to derive greater emotional value and immersive experiences. Simultaneously, privacy transparency should be established as a long-term objective to meet the growing user demands for data protection. By optimizing the design and functionality of AI avatars, the Weibo platform and associated brands can more effectively achieve their goals of sustained user engagement and business conversion.

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