

The Influence of Interactive Clues Between Human and Products on Social Media Sharing

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Abstract

Users Generated Content (UGC) is one of the most important marketing method of social media. In recent years, people tend to project their emotions into products, engaging in accompanying social interactions with these products, and posting their interactions on social media. The topic about social media has already have lots of attentions, but researches about interactive clues in social media content still have some weaknesses. This research focuses on the influence of interactions between UGC publishers and companion products on target audiences. This paper analyses that interactive clues between humans and products can promote social media sharing behaviors. Emotional resonance is the mediation between interactive clues and sharing behaviors. Based on these conclusions, the following suggestions are raised in this paper: Publishers of UGC could provide more emotional clues on their posts so as to promote users' sharing and spread. Platforms and enterprises could introduce new features about interactive clues, eliciting emotional resonance and optimizing content-propagation mechanism.

Keywords

interactive clues, sharing willingness, emotional resonance

1. Introduction

With the rapid development of internet technology, UGC has become an important information resources creating and organizing mode. People communicate and share information through social media. Users' sharing behaviors of posts has already become one of important factors to assess that whether social media platform and UGC creator are successful or not. Because of the mirror neuron system, human would imitate others' emotional expressions unconsciously, making emotions converge. Human's subjective emotional experience would be influenced by feedback information constantly (Hatfield et al., 1993). Time that people wasted on digital social media is increasing. In this period, people's connections with others' emotional expressions would cause themselves' expressions be influenced (Goldenberg and Gross, 2020). Research shows that although there are plenty of differences between various media, emotion intensity would largely determine users' sharing behaviors about eWOM (electronic Word-of-Mouth) (Liu et al., 2021).

Reviewing existing research literatures, social media is a popular topic among scholars. However, existing research ignored the effect of interactions between human and products towards content distribution. Researches about the social sharing of emotion theory needs to be supplemented and extended. In order to achieve wider dissemination, whether publishers of social media content choose to emphasize the interact feature of companion products has become an important problem of advertising strategy.

In view of these above, this research focuses on the impact of interactive clues in UGC on users' sharing willingness, analyzing the specific mechanism of action involved, which offers a new view to propagation mechanism. Therefore, this paper aims to research if UGC needs to add human-product interactive clues so as to promote users' spread through raising emotional resonance. By introducing the concept of "interactive clues", this paper prove the impact of interaction clue on emotional resonance and sharing willingness in the situation of UGC.

2. Method

2.1 Research Basis and Assumptions

2.1.1 Interactive Clues Between Human and Products

In digital propagation research, interactive clues between humans and products means design factors which enhance interactions between humans and products by anthropomorphism and giving products emotions. These clues make products seem to have lives and emotions through anthropomorphism and accompanying narration, promoting users' emotional connections and interactions with products.

In daily lives, plenty of products have accompanying meanings. In this interactive process, the attachment level between humans and products could be defined as intensity of emotional connection between consumers and durable products. This attachment is called product attachment.

Human-product interactive clues often present on social media by anthropomorphic design. Humans tend to assign human characteristics to non-human entities by anthropomorphism. This method could connect humans with products in an emotional way (Yang et al., 2020). Anthropomorphic products are much more prosocial than non-anthropomorphic products, which is easier to connect with consumers emotionally (Xuan et al., 2021). Research shows that consumers' positive perception towards human-like features of inanimate objects would cause consumers' positive assess to the product (Huang et al., 2020). If the brand could engage in para-social interaction with consumers, it will not only have a positive impact on advertisement, but also encourage consumers to engage in positive word-of-mouth promotion (Shen et al., 2019).

In social media, contents and products connect and interact with users by emotional narration, language and visual elements. Because there are more language communication clues online, contents is one of strong driving force of consumers' attitudes (Zablocki et al., 2019). When publishers describe contents in an emotional narrative way, it's easier to make them closer to the audience, making it easier for the audience to generate emotional response (Herman et al., 2010).

2.1.2 Emotional Resonance

With the increasing time people have spent on social media, people's subjective emotional experience would become similar to the information they've received in social media (Goldenberg and Gross, 2020). Research about the somatosensory cortex shows that visual input could adjust the somatosensory cortex, which makes humans experience others' feelings through information (Keysers et al., 2010). This kind of emotional perception is easy to be unconsciously influenced by emotional expressions (Liu et al., 2014).

In the digital age, online emotions are transmissible as well. In social media, when users are exposed to more positive or negative contents, the emotional inclination of their own reactions tend to converge with the emotional inclination of the stimulating content they're exposed to (Ferrara and Yang, 2015). Research shows that compared to face-to-face communication, digital interaction seems to strengthen rather than inhibit the level of emotional contagion: In order to improve user participation, digital media company usually consciously strengthen users' contact frequency and intensity of emotion, amplifying emotional contagion (Goldenberg and Gross, 2020).

ELM (Elaboration Likelihood Model) argues that clues of social media propagation include central route and peripheral route. The peripheral route (eg. emotional color) has a significant impact on audience's emotional and behavioral tendencies besides central route. Specific to this research, emotional colors of human-product interactive clues (eg. product anthropomorphism, accompanying narration) in social media are mainly warm and healing. Therefore, users' emotion is easily converge with the clue's emotional color, forming emotional resonance.

SSE (the Social Sharing of Emotion) theory argues that after emotional incidents, people tend to share their emotional experience with others. The emotional intensity is one of key driving factors that impact on eWOM propagation behaviors (Liu et al., 2021). Research shows that sharing motivations of positive events are mostly impacting on others, attracting attention and notifying information. Sharing motivations of negative events tend to arouse empathy (Chen and Er, 2020).

Therefore, it is speculated that users' emotional resonance response could directly drive their sharing behaviors about related media contents, for instance, forward, like and comment.

In view of these considerations, this paper proposes the following assumptions:

H1: In social media, interactive clues between humans and products could promote users' sharing behaviors. Specifically, describing that there are interactive clues between people and products (vs. No interactive clue) is better for stimulate sharing and spreading behaviors in UGC.

H2: Emotional resonance plays a mediating role between interactive clues and users' sharing behaviors.

2.2 Research Design

This paper choose questionnaire method and control experiment, verifying the main effect of interactive clues on users' sharing willingness and mediating effect of emotional resonance. The experiment used interactive clues as the independent variable, users' sharing willingness as the dependent variable and emotional resonance as the mediator. Among them, interactive clues refer to the emotional connection between humans and products in UGC. Users' sharing willingness specifically refers to behaviors such as forward, like, comment. The level of emotional resonance refers to the emotional response of UGC audience after seeing the post.

The experiment controlled the interactive clue by changing topic and content of the post. The post includes the interactive clue mainly emphasizes product anthropomorphism and accompanying narration. The post without the interactive clue mainly emphasizes features of the product. In order to control variables, picture, publishers' profile photo and name of two groups are the same. Subjects would randomly see one of the two posts so as to avoid the comparison of two groups change their judgement, making sure the scientific nature and rigor of the experiment.

This experiment consulted the page design of Instagram. The topic of the group which includes the interactive clue is "the bunny is going to travel with mommy~", the content of which is "This is my first time traveling with mommy. My seat is next to hers. I'm sooooo excited about this trip!!" (As shown in Figure 1). The topic of the group without the interactive clue is "This bunny is so cute!", the content of which is "The little bunny is sooo cute" (As shown in Figure 2).

Figure 1: The post which includes the interactive clue



Figure 2: The post which doe not include the interactive clue



The part of manipulation check verified whether the control experiment is effective by three questions: I feel like the toy in this post is interacting with me. I feel like the toy in this post is like a human that could accompany me. I can feel the emotional connection between the person and the toy through this post.

Regarding the measurement of sharing willingness, this research adapted the scale on the research basis of J. Berger and K. L. Milkman, for instance, "I'd like to like/comment on/forward this post" "I hope this post could be seen by more people". Regarding the measurement of the level of emotional resonance, this research consulted the theory model of Escalas and Stern. They disassembled emotional resonance into two elements, sympathy and empathy and presented two measurement models ARS ($\alpha=0.88$) and ARE ($\alpha=0.95$). This research adapted the scale based on these models, for example, "I can understand the emotion this post want

to express” “I’m trying to understand the condition while reading this post”. All of the items are measured using the Likert Seven Point Scale. “1” represents “strongly disagree” and “7” represents “strongly agree”.

During the experimental process, subjects were informed that they would suddenly see a post about toys while reading social media. After reading the post, the experiment tested manipulation check. Then, the experiment surveyed the sharing willingness and level of emotional resonance of subjects. Finally, subjects offered their demographic information.

There are 154 subjects in total and 120 effective data. After checking reliability and validity, the scale of sharing willingness $\alpha=0.955$ and validity of emotional resonance scale equals 0.955 as well. Because of the high reliability and validity, this research could be continued.

3. Result

3.1 Manipulation Check

The manipulation toward the interactive clue is successful. Subjects could feel more interaction and emotional connection between humans and products while reading the post including interactive clues ($M = 5.52$, $SD = 1.217$). While reading the post which doesn’t include interactive clues, subjects could rarely feel interaction and emotional connection between humans and products ($M = 4.16$, $SD = 1.854$. $F(1, 118) = 22.287$, $p < 0.001$, $\eta^2 = 0.159$).

3.2 The Influence of Interactive Clues on Sharing Willingness

This experiment took one-way (Exists interactive clues vs. No interactive clue) ANOVA analysis. Result shows that the main effect of interactive clues on sharing willingness is significant ($F(1, 118) = 5.355$, $p = 0.022$). Specifically, in social media, users tend to share the content including interactive clues ($M = 4.68$, $SD = 1.76$). Instead, content without interactive clues is more difficult to drive users to share ($M = 3.89$, $SD = 1.93$). Therefore, H1 holds. In social media, the stronger human-product interactive clues, the more users’ sharing behaviors.

3.3 Emotional Resonance

This experiment took Model 4 to test the mediating effect of emotional resonance, choosing 5000 simple size and 95% confidence interval. Taking sharing willingness as the dependent variable, result shows that the indirect effect of mediating effect in the presence of interactive clues is significant (effect = -1.1619, $SE = 0.2685$, $LLCI = -1.6841$, $ULCI = -0.6200$), but the direct effect is non-significant (effect = 0.3795, $SE = 0.2030$, $p = 0.0641$, $LLCI = -0.0225$, $ULCI = 0.7816$), which means there is a complete mediating effect. Interactive clues effect users’ sharing willingness through emotional resonance. Therefore, H2 holds. Emotional resonance plays a mediating role between interactive clues and users’ sharing behaviors.

The experiment verified the main effect of interactive clues on users’ sharing willingness and the mediating effect of emotional resonance. Result shows, when more human-product interactive clues appear in social media content, users’ sharing willingness is stronger.

4. Discussion

This research found that contents including human-product interactive clues are more likely to trigger emotional resonance than contents without human-product interactive clues in social media, which helps to promote people’s sharing and spreading behaviors on the internet.

4.1 Reasons

Nowadays, the pace of life is accelerating constantly. People’s communication and interaction offline are decreasing. Because of frequent social mobility, changing lifestyles and attitudes toward marriage and fertility, the loneliness of contemporary youth is increasing (He, 2017). Human is a kind of highly socialized biology. Companion and interaction are basic human needs. Once lacking these basic needs, humans will experience feelings of loneliness.

With the advent of digital age and the rise of social media platforms, the communication form of people is changing from reality interaction to online interaction. Digital interaction helps people communication and interact through fragmentation time, satisfying immediate emotional needs.

This emotional needs can also be compensated for through interacting with companion products, such as toys, AI robots. This kind of compensation can effectively decrease people's feeling of loneliness, bringing them positive emotional experiences. Research shows, putting human-product interaction conditions into pictures of the product can strengthen the emotional connection between people and the product, promoting their sharing and purchasing behaviors (Poirier et al., 2024).

Therefore, the human-product interactive relationship shown in social media content can arouse users' positive emotional resonance effectively. On social media platforms, this emotional experience would drive people's sharing behaviors.

4.2 Suggestions

For social media content creators, they should pay more attention on interactivity in the process of social media content publishing, rather than simply presenting information. This research shows, compared to rational statements, product anthropomorphism and accompanying narration are more likely to arouse emotional resonance. Emotional narration is more likely to have influence on the audience's opinions and behaviors than directly narrate objective truth (Herman et al., 2010) Therefore, introduction of emotional clues is more conducive to the propagation of contents

For platform managers, they should give users further encouragement to express their feelings. This research shows that emotional resonance could promote users' sharing behaviors. Platforms can introduce more interactive clues, such as comments sections, interactive Question-Answer sections, forming better content propagation mechanism.

For enterprise products designers, they should put more emotional clues and interactive designs into products, emphasizing emotional marketing during marketing process, such as IP anthropomorphism, interactive advertisement, which is conducive to achieve better propagation effect.

5. Conclusion

This paper draws the following conclusions through experiment: Firstly, human-product interactive clues could enhance users' sharing behaviors. Specifically, describing that there are interactive clues between people and products is better for stimulate sharing and spreading behaviors. Secondly, emotional resonance plays a mediating role in the relationship between interactive clues and users' sharing behaviors. Experiment result shows, compared to lacking interactive clues, content with clues is more likely to arouse people's emotional resonance, promoting users' sharing and spreading.

From the perspective of future research directions, users' sharing behaviors are impacted by lots of variables, such as self habits, emotions, social needs. More variables can be introduced for more comprehensive research in the future. Multiple forms of content control groups can be introduced into experimental research to conduct comparative experiments on images, videos and audios. Finally, the scope of subjects can be further expanded so as to explore perceptions of interactive clues across different ages.

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Conflicts of Interest

The authors declare no conflict of interest.

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