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Exploring the Effect of Intelligent Recommendation System on User's Emotional Attachment: The Moderating Role of Personality Trait

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1. INTRODUCTION AND RESEARCH QUESTIONS

In recent years, intelligent recommendation systems have become increasingly popular due to their ability to provide personalized recommendations and enhance user experience. However, the impact of these systems on users' emotional attachment and subsequent loyalty is not yet fully understood. Emotional attachment plays a vital role in promoting user loyalty towards intelligent recommendation systems. However, few studies have explored how to improve users' emotional attachment to these systems. A recommendation system provides personalized recommendations to users based on their preferences, which creates a sense of satisfaction for the users. Existing research shows that if users' satisfaction with the entity continues, they will have emotional attachment to the entity^[1]. Attachment theory suggests that individuals have a fundamental need for attachment and that their attachment style influences their behavior and relationships^[2]. Furthermore, the use and gratifications theory suggests that users actively seek out media that fulfill their needs, including the need for emotional attachment^[3]. Moreover, personality traits can also play a significant role in the user's emotional attachment and experience with intelligent recommendation systems. Previous studies have shown that extraversion, one of the Big Five personality traits, can influence users' responses to personalized recommendations^[4]. Therefore, it is reasonable to assume that extraversion may have a moderating effect on the relationship between intelligent recommendation systems and emotional attachment. Based on the above, this paper attempts to answer the following research questions: (1) How do users' self-actualization, self-pleasure and self-expressiveness affect their emotional attachment to the recommendation system? (2) How does the accuracy, serendipity and personalization of the recommendation system affect users' self-actualization, self-pleasure and self-expressiveness respectively? (3) How does extraversion affect the relationship between recommendation system and user emotional attachment?

2. THEORY AND RESEARCH FRAMEWORK

Based on attachment theory and uses and gratifications theory, the hypotheses and research framework are proposed herein (Figure 1).

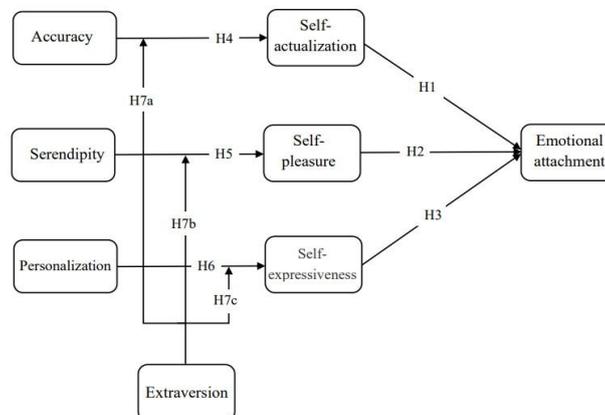


Figure 1. Research model

To examine our theoretical model, we conducted a survey to collect our research data. The measurement

items of the constructs in our questionnaire are adapted from prior research based on the context of NetEase CloudMusic. NetEase CloudMusic is a music software that includes music recommendation and sharing, friend recommendation and social networking. It is much popular in China.

3. RESULTS AND MAJOR FINDINGS

The research results show: (1) Accuracy, serendipity, and personalization have positive and significant effect on users' self-actualization, self-pleasure, and self-expressiveness respectively; (2) Self-pleasure and self-expressiveness are positively associated with users' emotional attachment, while self-actualization do not have significant effect on users' emotional attachment; (3) Extraversion has a positive moderating effect on the relationship between personalization and self-expressiveness. However, our research does not find evidence to support the moderating effect of extraversion on the relationship between accuracy and self-actualization as well as the relationship of serendipity and self-pleasure. This study can help developers of intelligent recommendation systems understand users' continuous usage behavior from the perspective of emotional attachment.

Table 1. Hypothesis testing results.

Hypotheses		Support
H1	Self-actualization → Emotional attachment	No
H2	Self-pleasure → Emotional attachment	Yes
H3	Self-expressiveness → Emotional attachment	Yes
H4	Accuracy → Self-actualization	Yes
H5	Serendipity → Self-pleasure	Yes
H6	Personalization → Self-expressiveness	Yes
H7a	Extraversion → Accuracy and Self-actualization	No
H7b	Extraversion ← Serendipity and Self-pleasure	No
H7c	Extroversion → Personalization and Self-expressiveness	Yes

4. CONTRIBUTIONS

This study has several theoretical contributions as follow. Firstly, attachment theory is rarely used in the field of intelligent recommendation systems. The issue of user retention requires an integrated exploration from both technological and marketing perspectives. This study discussed from the perspective of intelligent recommendation systems, broadening the application field of attachment theory. Secondly, this paper explores the moderating effect of extraversion on the relationship between recommender system characteristics and emotional attachment antecedent variables, this helps us better understand the complex relationship between recommendation systems and emotional attachment. The results of this paper also bring implications as follow: First, the conclusion of this study supports enterprises to conduct AI social marketing activities. Second, for intelligent recommendation system designers, this study depicts the design direction of recommendation systems. When designing a recommendation system, enterprises can adjust it according to the function of the software and the emotional expectations of users, so that users can truly participate in the recommendation system.

REFERENCES

1. Ghorbanzadeh D, Rahehagh A.: Emotional brand attachment and brand love: the emotional bridges in the process of transition from satisfaction to loyalty. *Rajagiri Management Journal*, (2021).
2. Park C W, MACINNS D J, PRESTER J.: Beyond Attitudes: Attachment and Consumer Behavior. *Social Science Electronic Publishing*, 12(2): 3-36 (2006).
3. Hussain A, Shabir G, Taimoor Ul H.: Cognitive needs and use of social media: a comparative study of gratifications sought and gratification obtained. *Information Discovery and Delivery*, 48(2): 79-90 (2020).

4. Meng, Keira Shuyang, and Louis Leung.: "Factors influencing TikTok engagement behaviors in China: An examination of gratifications sought, narcissism, and the Big Five personality traits." *Telecommunications Policy* 45.7 (2021): 102172.