

## **Fashion field needs human: Human vs. AI-generated fashion information**

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### **Introduction**

In recent years, the integration of artificial intelligence (AI) has sparked heated discussions across various fields. AI has dramatically changed how businesses collect data or communicate with users. Especially in the fashion field, with its ever-changing trends and creative nature, AI has become an integral part of the transformative wave. AI sometimes drives efficient data-driven results, showing positive aspects, while at other times, it can be perceived as less competent when the task seems to require human capacities. Thus, it is important to investigate people's perception of the recommender, as their perceptions and willingness to accept the information are affected by the recommender. There is existing research that deals with the comparison of Human vs AI, focusing on their generated information, but especially information tense, needs much more attention. Therefore, this paper aims to explore and compare the attitudes of individuals towards human-generated and AI-generated fashion information, with a specific focus on the impact of temporal context. Comparing such AI-generated information to human-generated content in terms of attitudes and behavioral intention can provide valuable insights into the unique roles that humans and AI play in the fashion domain. Also, by investigating the perceptions of consumers regarding past and future fashion information, we seek to shed light on how human expertise and AI capabilities intersect in shaping preferences and trust in the fashion field.

### **Literature Review and Hypotheses**

Fashion, often regarded as the epitome of the creative industry, is intricately tied to the values of art and aesthetics, thereby establishing a strong connection with human creativity. Within the creative industries, individual creativity serves as the driving force, shaping the trajectory of these industries (Li et al., 2007). In this context, users' inclination to perceive humans as possessing higher levels of creativity compared to AI stems from the belief that creativity and thinking are distinctive human traits (Im & Lee, 2023). Thus, within the fashion industry, human-generated information is more likely to be positively perceived in comparison to AI-generated information. In addition, humans possess a distinctive trait, namely memory, which is intricately linked to past experiences and employed during perception and theorizing processes (Heisenberg, 1958/1999; Sorabji, 1972). As a result, individuals tend to hold a perception that humans are better suited to organize past information and offer insights. This unique cognitive ability to access and utilize past memories contributes to the belief that human beings are more adept at providing information from the past. Finally, individuals' evaluations have been found to

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be a significant trigger for their subsequent behavior (Davis, 1989). Specifically, positive evaluations have a positive impact on the intention to engage in electronic word-of-mouth (e-WOM) (Chih et al., 2020). Building on this understanding, the present study puts forth the following hypotheses:

- H1.** Human-generated fashion information (vs AI-generated) is more likely to induce positive evaluation towards information.
- H2.** Temporal context will moderate the effect of recommender type to evaluation towards information.
- H3.** Temporal context will moderate the mediating effect of evaluation towards information between recommender type and e-WOM.

### **Methods**

This study employed a 2 (recommender type: human vs. AI) x 2 (temporal context: past vs. future) between-subject experimental design. The participants in the survey were individuals aged 18 or above residing in the United States. A total of 310 responses were collected through the Prolific platform. Each respondent was randomly assigned to one of the four experimental conditions. The measurement items used in this study were adapted from relevant literature and assessed using a 7-point Likert-type scale (Alfina et al., 2014; Im & Lee, 2023; Wien & Peluso, 2021). All factors of our constructs were satisfactory ( $> .90$ ). The hypotheses were tested using ANOVA and PROCESS Macro.

### **Results and Discussion**

The manipulations of our stimuli were successful, as indicated by the significant effects of both recommender type and temporal context ( $p < .000$ ). Consistent with our expectations, the main effect of recommender type on evaluation was significant ( $F = .095, p < .05$ ). Participants perceived human-generated fashion information ( $M = 5.01$ ) to have a more positive evaluation compared to AI-generated fashion information ( $M = 4.68$ ), providing support for Hypothesis 1. This result is consistent with previous research findings in the fashion field, where instinctive human characteristics are highly valued. Humans are perceived more positively as recommenders compared to AI systems. Furthermore, the two-way ANOVA examining the effects of recommender type and temporal context on evaluation yielded a significant interaction ( $p < .05$ ), providing support for Hypothesis 2. Specifically, the influence of human recommender type on evaluation was significant ( $p < .01$ ). Participants displayed a higher positive evaluation towards past fashion information provided by human recommenders ( $M = 5.29, SD = .146$ ) compared to future fashion information ( $M = 4.74, SD = .143$ ). Conversely, for AI recommenders, neither past nor future information had a significant effect on evaluation. Finally, to examine Hypothesis 3, we conducted a moderated mediation analysis using PROCESS model 7 with 5,000 bootstrap samples. The results revealed a significant moderating role of temporal context on the mediation effect of evaluation between recommender type and e-WOM (index = .3494, bootSE = .1559, CI = [.0551 to .6676]). This analysis indicated the presence of a conditional indirect effect, suggesting that the mediating effect of evaluation on the relationship

between recommender type and e-WOM is contingent upon the level of temporal context, supporting Hypothesis 3. Direct effect of recommender type on e-WOM was insignificant (effect = .186,  $p = .224$ , CI = [-.1150 to .4886]). Regarding the indirect effect, the mediation effect was significant for past information, indicating the mediating role of evaluation between recommender type and e-WOM specifically for past fashion information. However, the mediation effect was not significant for future fashion information.

The findings indicate that participants had a more positive evaluation of human-generated information compared to AI-generated information, highlighting the importance of human creativity in the fashion industry. The moderating role of temporal context was observed; in terms of future information, people tended to perceive it with general uncertainty, resulting in similar evaluations for human-generated and AI-generated content. However, when it came to past information, participants showed a stronger positive evaluation for human-generated content. This result aligns with the belief that humans are better equipped to organize relevant and authentic insights based on their personal experiences and historical knowledge. It suggests that individuals value the human element in content creation, particularly when it relates to drawing upon past experiences. Furthermore, the research highlights the significance of positive evaluations in driving e-WOM behavior. To encourage individuals to share and disseminate information, it is crucial to generate positive evaluations beforehand. This underscores the importance of cultivating positive perceptions among users, as positive evaluations contribute to the spread of information. Overall, this study highlights the interplay between recommender types, temporal context, and cognitive mechanisms in shaping user preferences and evaluations.

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