

The Searching Artificial Intelligence: Neural Evidence on Consumers' Less Aversion to Algorithm-Recommended Search Product

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Abstract : As research has shown a convergent tendency for aversion to AI recommendation, it is imperative to find a way to promote AI usage and better harness the technology. In the context of e-commerce, this study has found evidence that people show less avoidance of algorithms when recommending search products compared to experience products. This is due to people's different attribution of mind to AI versus humans, as suggested by mind perception theory. While people hold the belief that an algorithm owns sufficient capability to think and calculate, which makes it competent to evaluate search product attributes that can be obtained before actual use, they doubt its capability to sense and feel, which is essential for evaluating experience product attributes that must be assessed after experience in person. The result of the behavioral investigation (Study 1, N=112) validated that consumers show low purchase intention to experience products recommended by AI. Further consumer neuroscience study (Study 2, N=26) using Event-related potential (ERP) showed that consumers have a higher level of cognitive conflict when faced with AI recommended experience product as reflected by larger N2 component, while the effect disappears for search product. This research has implications for the effective employment of AI recommenders, and it extends the literature on e-commerce and marketing communication.

Keywords : algorithm recommendation, consumer behavior, e-commerce, event-related potential, experience product, search product

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