# When consumers trust AI recommendations—or resist them

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Researchers from Boston University and University of Virginia published a new paper in the *Journal of Marketing* that examines how consumers respond to AI recommenders when focused on the functional

and practical aspects of a product (its utilitarian value) versus the experiential and sensory aspects of a product (its hedonic value).

The study, forthcoming in the the *Journal of Marketing*, is titled "Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The 'Word-of-Machine' Effect" and is authored by Chiara Longoni and Luca Cian.

More and more companies are leveraging technological advances in AI, machine learning, and natural language processing to provide recommendations to consumers. As these companies evaluate AI-based assistance, one critical question must be asked: When do consumers trust the "word of machine," and when do they resist it?

A new *Journal of Marketing* study explores reasons behind the preference of recommendation source (AI vs. human). The key factor in deciding how to incorporate AI recommenders is whether consumers are focused on the functional and practical aspects of a product (its utilitarian value) or on the experiential and sensory aspects of a product (its hedonic value).

Relying on data from over 3,000 study participants, the research team provides evidence supporting a word-of-machine effect, defined as the phenomenon by which the trade-offs between utilitarian and hedonic aspects of a product determine the preference for, or resistance to, AI recommenders. The word-of-machine effect stems from a widespread belief that AI systems are more competent than humans at dispensing advice when functional and practical qualities (utilitarian) are desired and less competent when the desired qualities are experiential and sensory-based (hedonic). Consequently, the importance or salience of utilitarian attributes determine preference for AI recommenders over human ones, while the importance or salience of hedonic attributes determine resistance to AI recommenders over human ones.

The researchers tested the word-of-machine effect using experiments designed to assess people's tendency to choose products based on consumption experiences and recommendation source. Longoni explains that "We found that when presented with instructions to choose products based solely on utilitarian/functional attributes, more participants chose AI-recommended products. When asked to only consider hedonic/experiential attributes, a higher percentage of participants chose human recommenders."

When utilitarian features are most important, the word-of-machine effect was more distinct. In one study, participants were asked to imagine buying a winter coat and rate how important utilitarian/functional attributes (e.g., breathability) and hedonic/experiential attributes (e.g., fabric type) were in their decision making. The more utilitarian/functional features were highly rated, the greater the preference for AI over human assistance, and the more hedonic/experiential features were highly rated, the greater the preference for human over AI assistance.

Another study indicated that when consumers wanted recommendations matched to their unique preferences, they resisted AI recommenders and preferred human recommenders regardless of hedonic or utilitarian preferences. These results suggest that companies whose customers are known to be satisfied with "one size fits all" recommendations (i.e., not in need of a high level of customization) may rely on AI-systems. However, companies whose customers are known to desire personalized recommendations should rely on humans.

Although there is a clear correlation between utilitarian attributes and [consumer trust](#) in AI recommenders, companies selling products that promise more sensorial experiences (e.g., fragrances, food, wine) may still use AI to engage customers. In fact, people embrace AI's recommendations as long as AI works in partnership with humans. When

AI plays an assistive role, "augmenting" human intelligence rather than replacing it, the AI-human hybrid [recommender](#) performs as well as a human-only assistant.

Overall, the word-of-machine effect has important implications as the development and adoption of AI, [machine learning](#), and natural language processing challenges managers and policy-makers to harness these transformative technologies. As Cian says, "The digital marketplace is crowded and consumer attention span is short. Understanding the conditions under which [consumers](#) trust, and do not trust, AI advice will give companies a competitive advantage in this space."