

If your TV spoke to you, would you buy it? Study finds people spend more on some "talking products"

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A subject's cognitive response to various talking consumer goods is measured

using an Emotiv EPOC EEG headset. Credit: IU Kelley School of Business

In the classic Disney film "Beauty and the Beast," Lumière, the candelabra character, famously sings with Mrs. Potts, a teapot, "Be our guest, be our guest. Put our service to the test. Tie your napkin round your neck, Cherie, and we provide the rest."

When the 1991 Oscar-nominated song co-written by Indiana University alumnus Howard Ashman was released, it hardly seemed realistic that a product could sing its own praises and sell itself to consumers. But artificial intelligence today makes it possible, and new research from the IU Kelley School of Business finds that it can be a winning retail strategy.

Alan Dennis, professor of information systems and the John T. Chambers Chair of Internet Systems at the Kelley School, believes that it won't be long before products are selling themselves. Visual design technologies have rapidly improved over the past decade. Digital assistants such as Siri and Alexa and support chatbots have become ubiquitous.

"Companies have long used cartoon-like characters to sell products. We are familiar with the 'M&M spokescandies,' for example," Dennis said. "But adding human features to a product can be a powerful way to influence consumers' perceptions and decision-making because it can trigger anthropomorphism.

"When we hear or see an inanimate object that has human features, our brain automatically ascribes human form to it even though we rationally know the object is not human. Anthropomorphism changes how we think and behave toward an object, making us like it more," he added.

"Initial evidence suggests that not all products can trigger this; people are more likely to anthropomorphize complex products."

To test this idea, Dennis asked about 50 [undergraduate students](#) to assume the role of a new master's candidate and told them their program required them to purchase a [laptop computer](#), a camera, and a television. They were required to bid for the products on an eBay-style auction site.

The researchers used a two-minute video to deliver the "human" element of each product and participants couldn't bid until it was finished. They used a professional graphic to add human physical characteristics—such as eyes, a mouth, and a nose—and human-like movements—such as blinking and mouth movement while talking. Each product spoke in the first person.

In addition to tracking each person's willingness to pay, their [cognitive processes](#) were measured using an [Emotiv EPOC EEG](#) headset. Findings included:

- People were willing to bid about 20 percent more for the more complex product—the laptop—when it was displayed with the human attributes, as compared with those who only learned about it through a static web page or with a video presenting just a slideshow.
- In contrast, displaying the less complex products—the television and camera—in the same anthropomorphic way had no effect on the amount bid.
- The EEG data showed that presenting a product with human elements and features triggered more cognition in the parietal lobe of the brain, which plays a key role in our understanding of the world around us. It also helps us understand where we are in relation to other things that our senses detect around us.
- This recognition within the brain was not a universal response.

The data showed that ascribing human characteristics to non-human products triggered different responses depending on the complexity of the product. Many respondents exerted more effort to suppress the "cartoon agent" as irrelevant in the case of the television and the camera.

- The results suggest that people are more likely to anthropomorphize a product if it already has some human-like functionalities, such as the ability to respond and speak in a human voice, present some level of human knowledge, or have some autonomy in how it functions.

"Our research shows that there are important boundary conditions in the effects of displaying products in an anthropomorphic form," Dennis said. "Our results show that anthropomorphic displays lead to different cognition and different willingness to pay for more complex products, but not less complex products ... Our results suggest that adding a face, movement, and human speech are useful in designing the display of more complex products."

The research is [published](#) in the journal *Decision Support Systems*.

More information: Lingyao (Ivy) Yuan et al, Selling myself: Anthropomorphic products in electronic commerce, *Decision Support Systems* (2023). [DOI: 10.1016/j.dss.2023.114101](https://doi.org/10.1016/j.dss.2023.114101)

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