

Artificial intelligence can improve sales by four times compared to some human employees

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Chatbots, which use artificial intelligence to simulate human conversation through voice commands or text chats, incur almost zero

marginal costs and can outsell some human employees by four times, so why aren't they used more often? According to new research, the main contributor is customer pushback.

Service industry outlets like American Eagle Outfitters and Domino's Pizza use chatbots, as well as [online services](#) like Amazon and eBay. The machines don't have "bad days" and never get frustrated or tired like humans, and they can save money for consumers, but new research in the INFORMS journal *Marketing Science* says if customers know about the [chatbot](#) before purchasing, sales rates decline by more than 79.7%.

The study authors, Xueming Luo and Siliang Tong (both of Temple University), Zheng Fang of Sichuan University, and Zhe Qu of Fudan University, targeted 6,000 customers from a financial services company. They were randomly assigned to either humans or chatbots, and disclosure of the bots varied from not telling the consumer at all, to telling them at the beginning of the conversation or after the conversation, or telling them after they'd purchased something.

"Our findings show when people don't know about the use of [artificial intelligence](#) (AI) chatbots they are four times more effective at selling products than inexperienced workers, but when customers know the conversational partner is not a human, they are curt and purchase less because they think the bot is less knowledgeable and less empathetic," said Luo, a professor and Charles Gilliland Distinguished Chair at Temple University.

"Chatbots offer enhanced technological benefits, reduced customer hassle costs and increased consumer welfare (offering the product at lower cost because bots save money on labor)," added Luo. "This data empowers marketers to target certain customer segments to cultivate [customer](#) trust in chatbots."

More information: Xueming Luo et al, Frontiers: Machines vs. Humans: The Impact of Artificial Intelligence Chatbot Disclosure on Customer Purchases, *Marketing Science* (2019). [DOI: 10.1287/mksc.2019.1192](https://doi.org/10.1287/mksc.2019.1192)

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