

**RESEARCH NOTE · AI & CONSUMER BEHAVIOR**

# **When AI Makes Shopping More Efficient, Could It Also Make Us Less Generous?**

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**By Liu Xiaoyan, Chi Hoang and Sharon Ng**

AI-driven autonomous stores are increasingly becoming part of everyday retail. By eliminating human interaction at key service touchpoints such as reception and checkout, these formats promise faster transactions, lower costs, and greater convenience. Yet our research suggests that there may also be a less obvious social consequence: after interacting with autonomous stores, consumers may become less willing to help others. Across nine online and field experiments spanning grocery stores, convenience stores, hotels, and restaurants, we found that consumers exposed to AI-driven autonomous environments consistently showed lower levels of prosocial behavior than those exposed to human-operated environments.

The effect appeared across very different forms of helping. Consumers wrote shorter messages of encouragement to orphans, volunteered fewer hours, were less willing to donate to charity, and were less likely to choose a longer survey that would help improve a hotel. In a real-world field study involving 131 customers in Singapore, for example, customers leaving an autonomous convenience store volunteered an average of 1.60 hours per month for a student buddy programme, compared with 2.79 hours among those leaving a human-operated store.

## **Why does this happen?**

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The answer is not that consumers necessarily fear AI. Instead, the key mechanism is social connectedness. Even brief interactions with cashiers, receptionists, and service employees can remind us that we are part of a wider social world. These encounters may be small, but collectively they create subtle feelings of connection with other people. Autonomous environments remove many of these routine human

touchpoints. As a result, consumers can feel less socially connected, which in turn reduces their willingness to act for the benefit of others.

Importantly, the research found that perceived threat did not explain the effect. In one study, autonomous stores did increase feelings of threat, but it was the reduction in social connectedness, rather than threat, that accounted for lower willingness to donate.

The effect also persisted when AI took on a humanlike form. In a hotel experiment, participants interacted with either a humanoid robot receptionist or a human receptionist. Those interacting with the robot were less likely to choose a longer, more helpful survey, even though their evaluations of the hotel itself were similar.

## Three takeaways for business

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### 1. Efficiency should not come at the expense of human connection.

The lesson is not that businesses should avoid automation. Rather, firms should think carefully about which human touchpoints are worth preserving. A brief interaction with an employee may have value beyond the immediate transaction because it helps maintain a sense of social connection.

### 2. How companies explain AI matters.

When autonomous technology is framed as being introduced to improve consumer welfare, such as offering greater convenience, better access, or round-the-clock service, its negative effect on prosocial behavior can be reduced. In contrast, framing automation primarily around efficiency or cost reduction is less effective.

### 3. Design social connection back into automated experiences.

Consumers who shop or consume with companions are less vulnerable to the effects of autonomous environments because they already experience social connection through others. Firms can therefore look for ways to encourage shared experiences, community participation, or other forms of human interaction within highly automated settings.

## The bigger question

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The broader implication is that the consequences of AI may extend well beyond whether consumers like the technology, use it, or buy more because of it. Technologies that remove human interaction from everyday life may subtly influence how people subsequently relate to others.

For companies, this creates a new design challenge: **How do we capture the efficiency of AI without inadvertently removing the small human connections that help hold society together?**

That may ultimately be one of the most important questions businesses face as automation becomes increasingly embedded in everyday consumer life.

### WHAT THIS MEANS FOR MARKETERS

- ▶ Preserve high-value human touchpoints. Avoid automating blindly for speed; identify and protect routine employee interactions that maintain a sense of social connection.
- ▶ Reframe the purpose of AI. Communicate automation as a tool for consumer welfare (like 24/7 convenience) rather than corporate efficiency or cost reduction.
- ▶ Design connection back into automated spaces. Counteract the isolating effects of technology by creating shared experiences and community elements within automated environments.

## Reference

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Liu Xiaoyan, Chi Hoang and [Sharon Ng](#) (2026), "Automation reduces individuals' prosocial behavior," *Journal of Marketing*, (Forthcoming)

## About the Author

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