

TECHNOLOGY

Robots Save Us Time — But Do They Make Us Happier?

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As of 2019, more than 14 million Americans owned a robotic vacuum cleaner. Robotic lawn mowers tend to our yards, robotic suitcases follow us through the airport, and smart cooking machines prepare ingredients and implement entire recipes. Some autonomous products even play with and clean up after our pets. These tools are meant to improve people's lives, relieving them of chores and making them happier as a result — and while some do this, other's don't. How can business leaders ensure that their companies are developing products that people actually feel good about using?

As consumer psychologists, we have accumulated a great deal of evidence that spending money to outsource disliked tasks — such as by paying for a housecleaner — can improve happiness, lower stress, and improve our romantic relationships (even during the pandemic). But as technology develops, we have begun outsourcing not only to humans, but to machines as well.

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This trend is accelerating now that many in-person services are impossible due to social distancing requirements. As such, we have shifted our focus from studying the impact of time-saving services toward better understanding how autonomous products do

(or don't) improve consumer happiness. In recent research conducted with over 5,000 respondents worldwide, our team found that consumers who owned autonomous products did in fact report greater happiness and less stress than those who did not — but with two important caveats:

Consumers feel guilty if their products seem too human-like.

First, the consumers we studied reported significantly lower levels of happiness when their products reminded them of humans. When autonomous products had “person-like” qualities such as human-like voices or faces, or when consumers named their products after real people, they felt less comfortable with having these products do their dirty work. In fact, some even described feeling “guilty” about using these products.

These findings are consistent with our other recent research, which showed that consumers feel more guilt and are less willing to outsource tasks to a service provider if the person doing the work is “identifiable.” When we know *who* will clean our house, it humanizes the service, leading us to empathize with the provider and feel guilty about asking them to do something unpleasant that we could do ourselves.

Despite these findings, many autonomous products are intentionally designed to mimic human features and behaviors. Companies like Amazon and Samsung have developed products with voice interactions optimized to sound as human-like as possible. Dyson encourages their customers to name their vacuum cleaners. While this humanized approach does have potential benefits, such as reducing loneliness and helping consumers to feel a greater sense of control over these gadgets, our data suggests that these human-like features are also likely to make consumers feel guilty, worsening their experience and reducing happiness.

Consumers worry that using autonomous products makes them seem lazy.

Our research also found that happiness is impeded if the use of autonomous products is perceived as an indication of laziness. In many cultures, busyness is seen as a status symbol. This mentality prevents people from asking for more time on adjustable deadlines at work, taking all of their paid vacation, and spending money to save time. Perhaps as a result of this cultural bias, we found that people judged owners of autonomous products as lower in social status, lazier, and less successful (and they worried that they would be similarly judged if they were to use these products).

These findings could help to explain why the adoption of autonomous products is still significantly lower than initial predictions. While as recently as four years ago, think tanks predicted that a typical family home would hold up to 500 smart objects in 2020, this has not yet come to fruition. For example, as of March 2020, only 10% of Americans owned an autonomous vacuum (despite decreasing price tags making these products fairly affordable).

What should developers of autonomous products do?

Overall, our research points to a few concrete strategies for companies looking to maximize consumer satisfaction.

1. Remind consumers how much time they are saving — doing so can increase happiness. As such, marketing communications should focus on reminding consumers that autonomous products can save them time, which they can then spend on important

activities such as work, [going for a short walk outside](#), or [\(virtually\) socializing with a friend](#).

2. Companies should limit human-like features, and should consider giving their autonomous products clearly non-human names — the more human-like the product seems, the guiltier consumers feel when using it. This is exacerbated if the consumer is encouraged to name the product themselves.
3. Companies should consider encouraging consumers to enjoy these products — and the time-saving benefits — in secret (as opposed to telling their manager or their mother that a robot plays with and cleans up after their pet). Secret enjoyment, or “[inconspicuous consumption](#),” is the best bet for maximizing joy and minimizing shame when using autonomous products. If consumers are eager to talk about their autonomous products, companies could encourage consumers to highlight the fact that the time these products save them is allocated toward productive and meaningful activities, such as work or family time, which could mitigate concerns around appearing lazy.

The pandemic has only made time-management more challenging. With children home from school, many services providers closed, and stores facing long lines and product shortages, we all need more support than ever for daily tasks such as delivery, pet care, and housecleaning. Autonomous products can fill that gap — but only if companies build and market these tools in a way that makes people feel good about using them.



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