

Overconfidence in new technologies can influence decision-making

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Technological advances in recent decades have transformed most aspects of daily life, and technology now plays a major role in business and society. However, little is known about how perceptions of technology might influence decision-making. Now, University of Missouri researchers have shown that people tend to overestimate the likelihood of new technologies' success; this overconfidence can influence important decisions, such as investment choices.

"Technology has advanced to the extent that people may not understand how a particular [technology](#) works, but they do assume that it will work," said Chris Robert, associate professor of management in the MU Trulaske College of Business. "We found that people unconsciously associate technology with the notion of success, and this association influences decisions about things like [financial decisions](#), and forecasts of business performance. It is important to determine how this assumption may affect people's choices because many [important decisions](#) involve technology in some fashion."

Robert and his colleagues described overconfidence in technology and its potential for successful outcomes as the "technology effect." They proposed that this effect is driven by constant exposure to technology, and especially examples of successful technology, whereas less attention is paid to the myriad technological failures, many of which are never publicized or are viewed as temporary failures.

"It turns out that people have more confidence that unfamiliar

technologies will provide solutions to a range of problems," Robert said. "People seem to put [new technology](#) in a category of 'great things that work which I love but don't understand,' whereas they are not as excited about familiar technologies like electricity, solar power or telephones, and they don't believe these technologies are as likely to provide new solutions."

Robert said the research also suggests the technology effect might influence people's behaviors in everyday life.

"For some people, the technology effect might include the idea that unhealthy behaviors like a poor diet are less impactful because they think that eventually, someone will develop technology that provides a cure for their illness."

Robert and his colleagues conducted three studies to investigate the technology effect. One study measured the extent to which participants unconsciously linked technology to success, and another study asked participants to make business decisions based on whether the performance of the business was based on new technology, familiar technology or non-technology. In a final study examining [investment decisions](#), Robert and his colleagues demonstrated that participants preferred technology-related stocks—even when they were projected to perform no better than other available options.

Robert said consumers, financial advisers and corporate decision-makers could benefit from an awareness of the technology effect and its potential consequences.

"People should be mindful that when they make decisions about many things in their lives, they might unconsciously be influenced by how much they think technology can affect the outcome," Robert said. "This belief could affect how governments make decisions about allocations of

resources, how corporations make decisions about research and development, or how individuals make purchase and investment decisions. Because this bias tends to occur especially when the technology in question is unfamiliar, it would be wise to seek the opinion of someone with expertise in that specific technology, especially when making financial decisions."

Provided by University of Missouri-Columbia

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