

Study: Individuals value information as they do material objects

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Technology has enabled the creation of a vast and growing amount of information, leading to benefits (e.g., more data to learn from) as well as drawbacks (e.g., the spread of fake news and conspiracy theories). New

research sought to determine how and why people value information. The research found that people grow attached to information just as they do to physical objects, even when that information cannot be translated into material outcomes.

The findings, by researchers at Carnegie Mellon University (CMU) and the University of Innsbruck, appear in the *Proceedings of the National Academy of Sciences (PNAS)*.

"We often talk about interacting with information as if we are consuming something, and we describe our attachment to personal beliefs as holding onto or letting go of something," says Christopher Olivola, Associate Professor of Marketing at CMU's Tepper School of Business, who coauthored the research. "But while the valuation of money and [material goods](#) has been studied extensively, surprisingly little research has focused on how we value information."

According to conventional economics and [game theory](#), information is valued solely to the extent that it supports decisions that yield better outcomes. But this view does not fully explain how individuals engage with information, such as our willingness to pay for information that doesn't impact us in any tangible way (e.g., purchasing celebrity gossip magazines) or our tendency to avoid information we think goes against our beliefs (e.g., only consuming news from sources that share our views).

In three studies—involving more than a thousand participants—the researchers demonstrated that people treat gains and losses of information as they do gains and losses of goods: as cherished possessions. They did so by showing that loss aversion (the tendency to feel worse about losses than to feel good about equivalent gains) and the [endowment effect](#) (the tendency to value objects we own more than identical objects we do not own) apply not only to money and tangible

goods but also to information—even largely useless information (e.g., random trivia facts).

While the three studies focused on information that was largely irrelevant to individuals, the authors suggest that the pattern of results they document likely also applies to information that is consequential. As such, the findings could have implications for situations in which people are encouraged to value useful information, such as in the domains of education and health care. The findings might also help guide research and shape policy about online consumer privacy—for example, understanding whether and when consumers think of [personal information](#) as possessions likely shapes their views toward having such information gathered and shared by firms and governments.

"Identifying loss aversion and the endowment effect for information may be particularly relevant in the digital age, when individuals' unprecedented access to [information](#) complicates and can change the way we value it," suggests Yana Litovsky, a Postdoctoral Researcher in the Department of Banking and Finance at the University of Innsbruck, who led the research.

More information: Yana Litovsky et al, Loss aversion, the endowment effect, and gain-loss framing shape preferences for noninstrumental information, *Proceedings of the National Academy of Sciences* (2022). [DOI: 10.1073/pnas.2202700119](https://doi.org/10.1073/pnas.2202700119)

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