

New research analyzes investor reaction to robo-advisors: Some investors miss opportunities

August 18 2021



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Believe it nor not, more and more lending companies are turning to human-robot interaction to help with investment advice. But how do



people react and what's the result of an investment decision when robots use algorithms to make suggestions? New research in the INFORMS journal *Information Systems Research* finds that investors who could benefit most from robo-advisors (RAs) aren't using them. And those who are change their minds too quickly to see a return.

The article, "Human-Robot Interaction: When Investors Adjust the Usage of Robo-advisors in Peer-to-Peer Lending," was conducted by Zhiqiang (Eric) Zheng of the University of Texas at Dallas, Ruyi Ge of Shanghai Business School, and Xuan Tian and Li Liao of Tsinghua University, Beijing.

"Our analyses show that somewhat surprisingly, investors who need more help from RAs—that is, those who encountered more defaults in their manual investing—are less likely to adopt such services," says Zheng, an Ashbel Smith Professor and professor of <u>information</u> systems in the Jindal School of Management at UT Dallas. "Investors tend to adjust their usage of the service in reaction to recent RA performance. However, interestingly, these human-in-the-loop interferences often lead to inferior performance."

The researchers looked at the <u>human-robot interaction</u> of financial advising services in peer-to- peer lending (P2P). Many crowdfunding platforms have started using robo-advisors to help lenders amplify their intelligence in P2P loan investments. This work analyzed data from one of the leading P2P companies and examined how investors use roboadvisors, and how the human adjustment of robo-advisor usage affects investment performance.

"Our results show that users experience more losses due to being too reactive to recent RA performance. This presents a new but negative use case for human-artificial intelligence (AI) synergy, where leaving too much control to humans over when to use an RA may be



counterproductive," continues Zheng. "This result reflects investors' possible misunderstanding and misuse of RAs. They may not always have proper knowledge of RA systems and may intervene counterproductively."

Zheng notes that RA systems need to offer more transparency in their services and that a well-designed intelligent system should anticipate possible user behaviors and account for such human factors in its system design.

"It is especially important to know when it is beneficial to include humans in the loop of a system's deployment. All these implications require a clear understanding of how users might adopt and react to the systems," he adds.

More information: Ruyi Ge et al, Human–Robot Interaction: When Investors Adjust the Usage of Robo-Advisors in Peer-to-Peer Lending, *Information Systems Research* (2021). DOI: 10.1287/isre.2021.1009

Provided by Institute for Operations Research and the Management Sciences

Citation: New research analyzes investor reaction to robo-advisors: Some investors miss opportunities (2021, August 18) retrieved 27 April 2024 from https://phys.org/news/2021-08-investor-reaction-robo-advisors: Some investors miss

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