

How Disclosing Algorithm Type Can Shape Consumers' Adoption of Digital Technologies

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Cite as:

Clegg Melanie, Hofstetter Reto, De Bellis Emanuel, Zimmermann Jenny, Schmitt Bernd (2020), How Disclosing Algorithm Type Can Shape Consumers' Adoption of Digital Technologies . *Proceedings of the European Marketing Academy*, 49th, (64115)

Paper from the 49th Annual EMAC Conference, Budapest, May 26-29, 2020 .



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Abstract

Algorithms are the backbone of digital technologies. For consumers, however, these technologies frequently constitute a black box, as they are uninformed about the algorithms implemented in them. Integrating literature on computer science, product innovation management, and consumer behavior, we open the black box and communicate two fundamentally different algorithm types to consumers: adaptive vs. pre-programmed. A series of experimental studies shows that adaptive (pre-programmed) algorithms are perceived as more creative (predictable). The type of algorithm shapes consumers' preferences for different products: Whereas consumers prefer adaptive algorithms for products that require high outcome creativity, pre-programmed algorithms are preferred when a predictable outcome is desired. This research contributes to our understanding of digital technologies and algorithms, and provides important implications for marketing communication.

Keywords: *algorithm perception; artificial intelligence; machine creativity*

Track: Innovation Management & New Product Development