



Theoretical Issues in Ergonomics Science >

Volume 24, 2023 - Issue 4

252	0
Views	CrossRef citations to date
	Altmetric

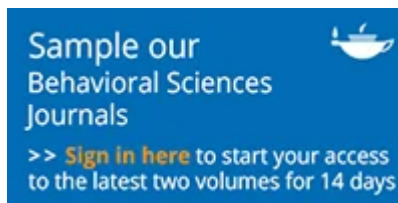
Articles

Identifying and understanding individual differences in frustration with technology

Nina R. Ferreri   & Christopher B. Mayhorn

Pages 461-479 | Received 22 Dec 2021, Accepted 24 Jun 2022, Published online: 07 Jul 2022

 Cite this article  <https://doi.org/10.1080/1463922X.2022.2095458>



 Full Article

 Figures & data

 References

 Citations

 Metrics



 Reprints & Permissions

Read this article

Abstract

Individual differences in user responses to malfunctions with technology are of primary interest, as this influences how a product can be improved and has not been examined extensively. Previously, individual differences in responses to technology failures have been examined in self-reported studies, but not in an experimental design. The current study expanded the findings from previous research with a mixed factorial design. Seventy-two ($N = 72$) undergraduate students were recruited to participate in this online study. They were asked to complete a shopping task and complete a survey about their experience. To examine individual differences in responses to technology failures,

several repeated measures ANOVAs, multiple regressions, and hierarchical regressions were conducted to assess the effects of expectation and malfunction on frustration and performance. Results revealed individuals with a greater tendency to be neurotic or extraverted also tended to be more frustrated by a technology malfunction. Additionally, openness was the strongest predictor of less frustration with technology failures, while extraversion was the strongest predictor of more frustration with technology failures.

Q Keywords: Malfunction frustration performance personality online shopping

Acknowledgements

This research was made possible thanks to the participation of enrolled students at North Carolina State University.

Disclosure statement

No potential conflict of interest was reported by the authors.

Additional information

Notes on contributors

Nina R. Ferreri

Nina R. Ferreri, BA, is a graduate student at North Carolina State University in Raleigh, North Carolina, pursuing a PhD in psychology with a concentration in human factors and applied cognition. Her research interests include examining user frustration with technology when it malfunctions while also considering user expectations for technology performance. She is also interested in examining differences in responses to technology malfunctions among different age cohorts. ORCID iD:

<https://orcid.org/0000-0003-0614-5684>. LinkedIn:

www.linkedin.com/in/ninaferreri.

Christopher B. Mayhorn

Christopher B. Mayhorn is a professor of psychology and department head at North Carolina State University in Raleigh, NC. He is also a fellow of the Human Factors and Ergonomics Society with research interests in applied cognition, human-technology interaction, safety, and ageing. He earned his BA from The Citadel in 1992, his MS and PhD from the University of Georgia (1995 and 1999, respectively), and completed a postdoctoral fellowship at the Georgia Institute of Technology.

Log in via your institution

➤ [Access through your institution](#)

Log in to Taylor & Francis Online

➤ [Log in](#)

Restore content access

➤ [Restore content access for purchases made as guest](#)

Purchase options *

[Save for later](#)

PDF download + Online access

- 48 hours access to article PDF & online version
- Article PDF can be downloaded
- Article PDF can be printed


USD 61.00

 [Add to cart](#)

Issue Purchase

- 30 days online access to complete issue
- Article PDFs can be downloaded
- Article PDFs can be printed

USD 339.00

 [Add to cart](#)

* Local tax will be added as applicable

Related Research

People also read

Recommended articles

Cited by

[Determining Causes and Severity of End-User Frustration](#) ➤

Irina Ceaparu et al.

International Journal of Human-Computer Interaction

Published online: 9 Jun 2010

[Workplace user frustration with computers: an exploratory investigation of the causes and severity >](#)

Jonathan Lazar et al.

Behaviour & Information Technology

Published online: 19 Feb 2007

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources
by email



[Sign me up](#)



Copyright © 2024 **Informa UK Limited** [Privacy policy](#) [Cookies](#) [Terms & conditions](#) [Accessibility](#)

Registered in England & Wales No. 3099067
5 Howick Place | London | SW1P 1WG

WILEY | **Taylor & Francis Group**
AN INFORMA COMPANY