Exploring Persuasive Tools to Enhance Digital Resilience to Misinformation – Extended Abstract

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Abstract

Background: Misinformation can impact beliefs, attitudes, and behaviours at individual, community, and national levels. Sophisticated pre-bunking interventions, informed by psychological inoculation theory, apply the principle of vaccination to information, arguing that 'inoculating' individuals with a weakened form of persuasion can build immunity. This qualitative study explores participants' perceived efficacy of three pre-bunking tools to enhance digital resilience to misinformation. We employed the Fogg Behaviour Model (FBM) to examine the tools through the lens of Persuasive Technology (PT) by considering the components of *motivation*, *ability*, and *prompt*.

Method: By employing a qualitative design, we conducted in-person semi-structured interviews throughout August 2023, interviewing 13 Australian participants (aged 18 to 55, seven identified as female and six as male). Guided by the principles of PT and psychological inoculation theory, three tools were selected for this study: Bad Influence, Cranky Uncle, and Spotting Misinformation and Disinformation. Participation took approximately one hour and included interaction with each pre-bunking tool followed by interviews.

Results: A thematic analysis identified four key themes that captured participants' perceptions of the tools' efficacy: 1) *Tool flow* related to participants' abilities to easily follow, use, and navigate the instructions of the tools. 2) *Tool design* and style related to participants' feelings toward the genre, aesthetics, and layout of the tools. 3) *Key components of the tools* that enabled or inhibited participants' interactions with the tools. 4) *Intended behavioural change* captured the extent to which participants perceived the tools motivated them to change the way they interact with information online. While the most frequent finding focused on participants' ability to easily navigate the tools, motivation to engage with the tools was highly dependent on personal preferences. Findings further suggest that for a participant to be motivated to enhance their digital resilience, they had to receive something of tangible value from the interaction with the tools.

Discussion and Conclusion: Our study introduces the novel approach of examining pre-bunking tools by employing PT and the FBM as analytical lenses. The four extracted key themes provide a useful set of principles to enable the development of new, and assessment of existing, pre-bunking tools. While the findings are based on a limited sample of Australian participants, the richness of qualitative data provides invaluable insights, and guides future research directions. As the prevalence of misinformation in online settings continues to rise, so too does the need to develop evidence-based approaches. Our findings highlight how the FBM and PT frameworks can be utilised in the design and evaluation of pre-bunking tools, paving the way for evidence-based strategies to address online misinformation.

Keywords

Pre-bunking tools, Digital resilience, Misinformation