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From Warning to Wallpaper: Why the Brain Habituates to Security Warnings and What Can Be Done About It

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Warning nately, they are large failure is habituat has only inferred , such as through lerstanding of hov t measures of ha fects. In this study, w as it occurs in the br that repeated on. In an experim e found that our poly n were conventi nd experiment (n = 80), we implemented the four most resistant polymorphic warnings in

a realistic setting. Using mouse cursor tracking as a surrogate for attention to unobtrusively measure habituation on participants' personal computers, we found that polymorphic warnings reduced habituation compared to conventional warnings. Together, our findings reveal the substantial influence of neurobiology on users' habituation to security warnings and security behavior in general, and we offer our polymorphic warning design as an effective solution to practice

Key words and phrases:

behavioral information systems security | cybersecurity | fMRI | functional magnetic resonance imaging | habituation | mouse cursor tracking | neurobiology | NeuroIS | polymorphic warnings | security warnings

Supplemental File

Supplemental data for this article can be accessed on the publisher's website at http://dx.doi.org/10.1080/07421222.2016.1243947

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Additional information

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