

On the use of image and emojis in graphical password application

ABSTRACT

This paper explores emojis as graphical password alternative for user authentication. The assumption of emojis is easier to remember and more secure has motivated the researchers to enhance existing graphical password authentication scheme. Most of the graphical authentication schemes provides longer authentication times and therefore emojis were chosen to be the alternative to reduce login times and exhibit picture superiority effect. The usability and security evaluation have been conducted to explore the differences among efficiency, effectiveness, memorability, user satisfaction, and password space and entropy of the prototype. The findings showed an acceptable level of efficiency, effectiveness and user satisfaction of the proposed system while further research should focus on the tolerance field of the images. Based on findings, this study provides recommendations for designing more usable and secure authentication schemes.

Keyword: Emojis; Authentication; Graphical password; Usability