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Online Access With a Fingerprint

A new service developed by a researcher at the University of Southampton makes it possible for users to maintain multiple online accounts using a scan of their fingerprint as a password.

The new service, FingerID , has been developed by Sara Alotaibi, who has just completed a Masters degree in Web Technology at the University's School of Electronics and Computer Science and got the top mark in her cohort for this research.

"FingerID provides users with the facility to maintain multiple web accounts from a single source just using a fingerprint, and eliminates their concerns about having to remember multiple usernames and passwords," said Ms Alotaibi.

In order to develop FingerID, Ms Alotaibi evaluated existing and proposed systems geared towards replacing the conventional form of authentication using a username and password on the Web, and found that not much work had been done in this field.

She went on to evaluate these systems against criteria such as security, accessibility and usability, as a result of which she generated a concept which could fundamentally alter the entire authentication mechanism, replacing memorised passwords with fingerprint data. This laid the foundation for FingerID -- a service to maintain multiple web accounts with the user's fingerprint.

The FingerID system is programmed to request the user's fingerprint scan for registration purposes. Following

registration, the user can then gain access to multiple web accounts under one service. The registration process of the user will only take place once, and later scans will be used to verify the user to provide access to web accounts. The FingerID system is composed of two main parts: web site and software (browser)

"The username/password authentication mechanism is no longer fit for purpose, so FingerID has come at a good time," said Ms Alotaibi. "We propose a cost-effective, convenient and secure authentication-solution for undertaking secure dealings over the Internet. It will allow Internet users to authenticate their identity in a hassle-free manner and go about their activities in a secure environment without the fear of loss of identity and money."

Ms Alotaibi will go on to develop her approach further in her PhD (supervised by Dr David Argles and Dr Mike Wald at the University of Southampton) when she will look at using other aspects of authentication such as palm prints and face gestures. She is also running an online survey to help her to develop her work further; this can be found at: http://qtrial.qualtrics.com/SE/?SID=SV_5haXGeNh0MHgEio

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