

Identity information revealed from mobile touch gestures

Margit Antal, László Zsolt Szabó, Zsolt Bokor

Faculty of Technical and Human Sciences, Tirgu Mures, Sapientia Hungarian University of Transylvania, Romania

manyi@ms.sapientia.ro, lszabo@ms.sapientia.ro, zsoly91@gmail.com

Due to the powerful sensors incorporated, the new generations of smartphones have become capable of many sophisticated biometrics. Touchscreen based biometrics is a new type of biometrics showing great potential. In this paper we review the studies already conducted in this direction, then present our study aimed to find the best method for touch data based authentication. We collected a large touch dataset from 71 users using 8 different mobile devices: tablets and phones. Touch data were divided in strokes and several classification schemes like k-NN, Random Forests and SVM were investigated on this dataset. Measurements show that several strokes are required for accurate user identification. Besides different classification results, statistical analysis of the collected data is presented.

References

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