

---

# Back-of-Device Authentication with BoD Taps and BoD Shapes

**Alejandro Catalá**

ISSI-DSIC  
Universitat Politècnica de València  
acatala@dsic.upv.es

**Luis A. Leiva**

PRHLT Research Center  
Universitat Politècnica de València  
luileito@prhlt.upv.es

Work partially supported by EU FP7 program (grant 600707), GVA VALi+d program (grant APOSTD/2013/013), and MINECO (grant TIN2010-20488).

---

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author. Copyright is held by the author/owner(s).  
*MobileHCI'14*, Sep 23–26 2014, Toronto, ON, Canada  
ACM 978-1-4503-3004-6/14/09.  
<http://dx.doi.org/10.1145/2628363.2633571>

## Abstract

This demonstration accompanies a paper accepted at MobileHCI'14 [1]. Back-of-device (BoD) authentication has shown to be significantly more secure than standard front-facing approaches, being *BoD Shapes* the most representative method found in the literature. With the aim of getting a better understanding and improving its usage, we developed *BoD Taps* as a novel alternative. Our experiments revealed that *BoD Taps* and *BoD Shapes* perform equally good at unlocking the device, but *BoD Taps* allows users to enter passwords about twice faster. Moreover, *BoD Taps* was perceived as being more usable and less frustrating than *BoD Shapes*. This demonstration showcases both authentication methods in action, aimed at comparing and discussing their features and potential improvements.

## Author Keywords

Back of device interaction; Unlocking; Passwords

## ACM Classification Keywords

H.5.2 [User Interfaces]: Input devices and strategies;  
K.6.5 [Security and Protection]: Authentication

## References

- [1] Leiva, L. A., and Catala, A. BoD Taps: An improved back-of-device authentication technique on smartphones. In *Proc. MobileHCI* (2014).