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**Beyond passwords**

DARPA Cyber Colloquium  
Arlington, VA

November 7, 2011



# Report Documentation Page

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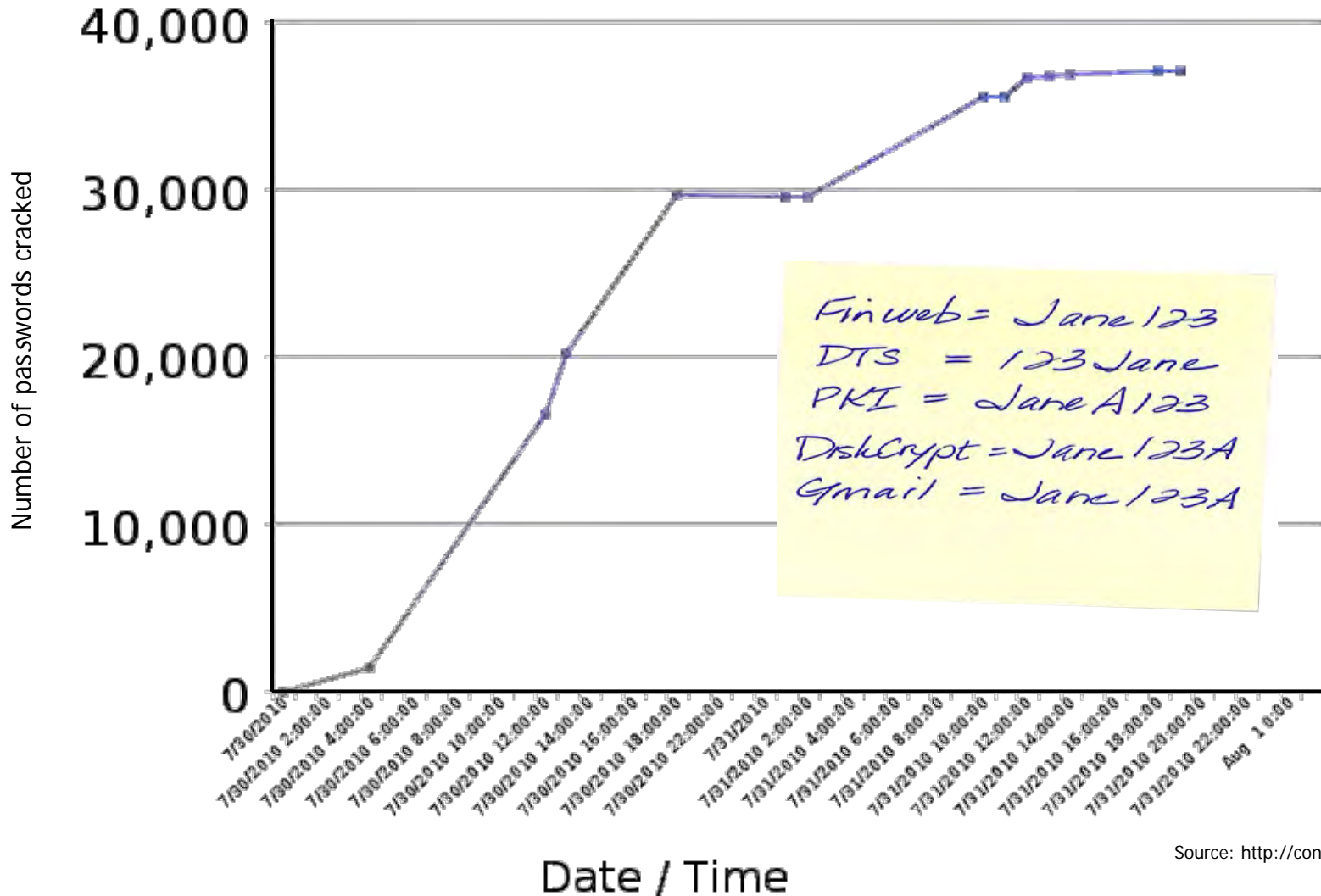
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# The Unintended Consequences of Passwords

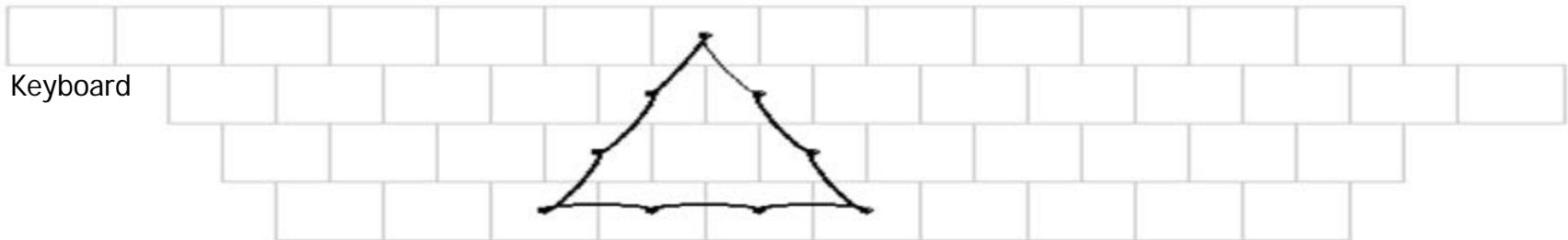
## Defcon 2010 Password Hacking Contest



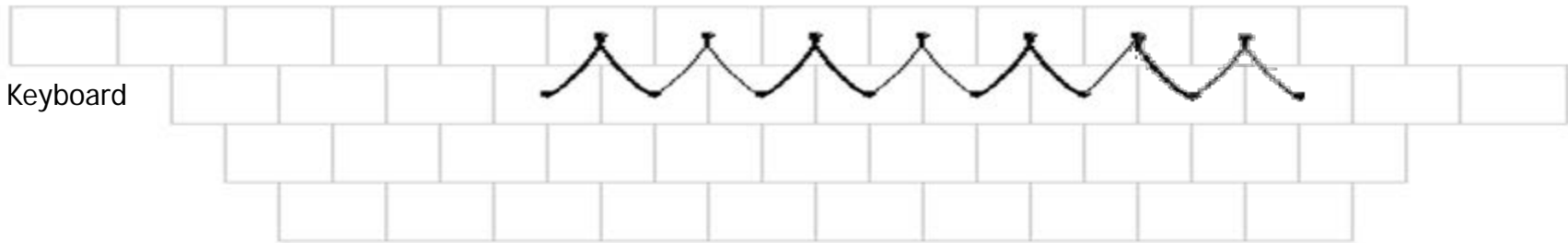
Source: <http://contest.korelogic.com/>



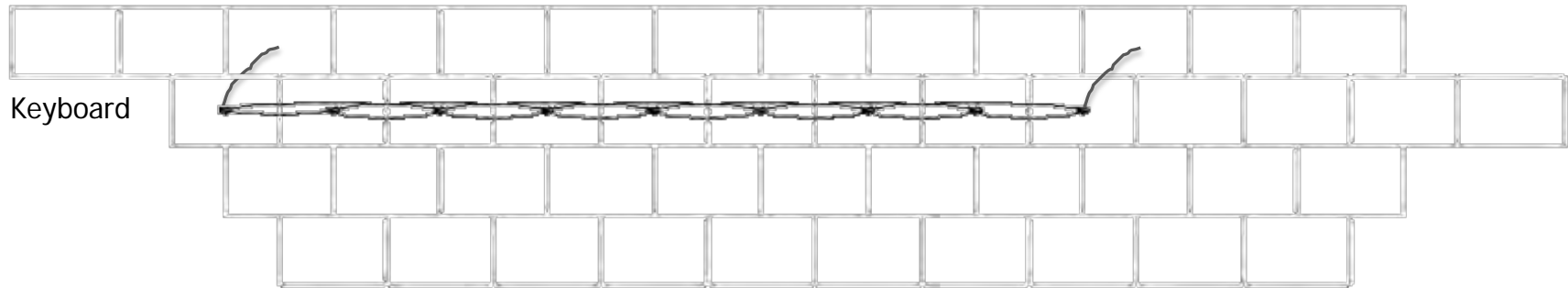
# Why will passwords always be a problem?



6tFcVbNh^TfCvBn



R%t6Y&u8I(o0P-[



#QWqEwReTrYtUyI9

Source: *Visualizing Keyboard Pattern Passwords*, US AF Academy 11 Oct, 2009



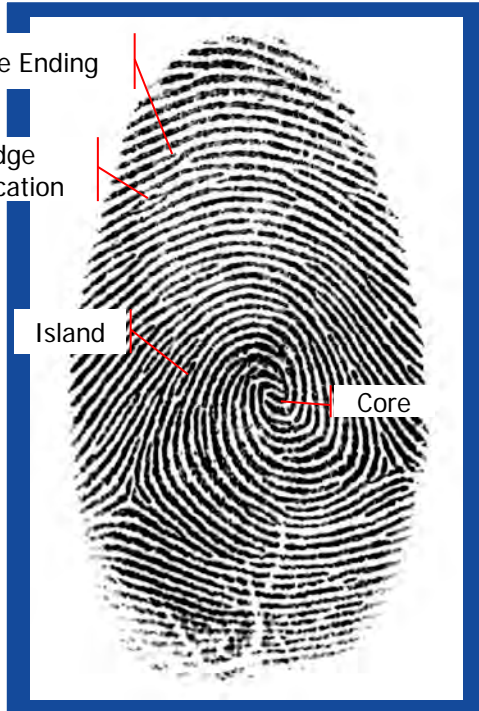
How do we move from proxies for you to the actual you?

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# Biometric Identity Modalities

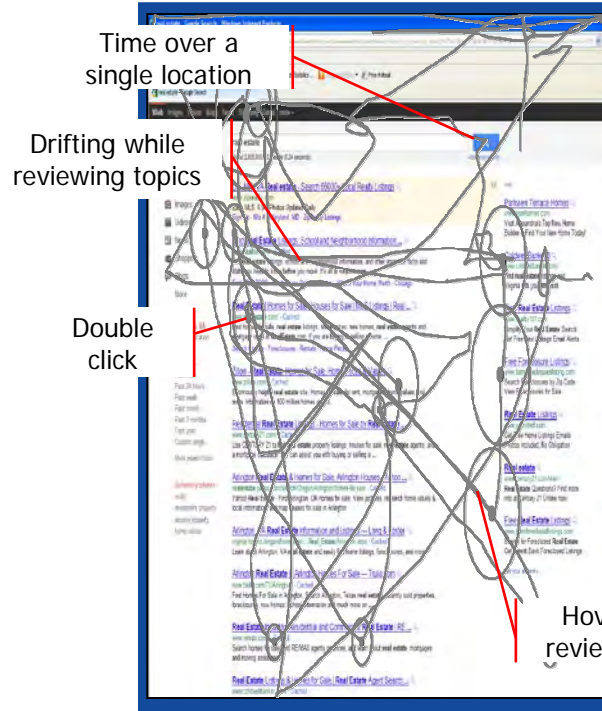
## Fingerprint



Source: epdeatonville.org/wp-content/uploads/2011/04/fingerprint.jpg

Existing Technology

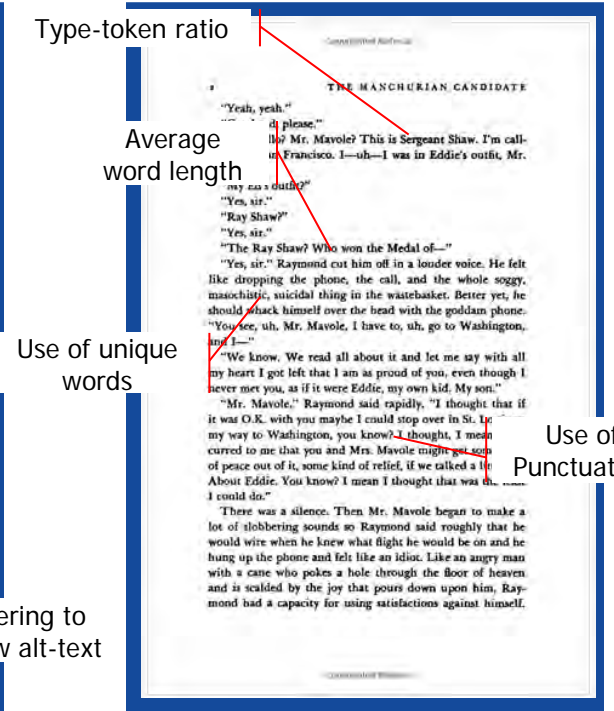
## Mouse tracking



Source: google search for "real estate" with mouse tracking provided by IOGraph

Repurposed Technology

## Forensic authorship



Source: The Manchurian Candidate, Robert Graves, P2, Amazon Preview

New Technology



# Active Authentication Program

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- Performer Day Announcement: DARPA-SN-12-13
- Contact Email: [ActiveAuthentication@DARPA.MIL](mailto:ActiveAuthentication@DARPA.MIL)
- Performer Day: November 18, 2011
  - URL: <http://www.fbo.gov>
- [Richard.Guidorizzi@DARPA.MIL](mailto:Richard.Guidorizzi@DARPA.MIL)