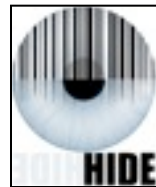




Identity Management facing the introduction of Biometrics on the internet

Technology Convergence Focus-Group

Nov. 17th 2009
by Nicolas DELVAUX



Identity still under control?

- ▶ Identity check is a relationship between humans
- ▶ Electronic and Biometrics technology as support. Fallback procedures are mandatory
- ▶ Trustworthy is not only based on valid documents: rules apply and common sense is still alive
- ▶ Emotions, discriminations, etc. may impact
- ▶ Frauds exists but the target is to minimise the fraud



Authentication on the Internet world



Identity still under control?

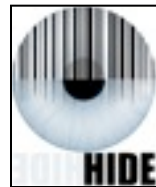
- ▶ Currently, authentication is based on something you know (login/password)
→ inflation of questions about your know-how

- ▶ In the near future, new authentication factors:
 - Something you have (Smart cards, tokens)?
 - Something you are (Biometrics) ?

- ▶ Stakeholders are disseminated
 - Identity claimant is somewhere in the world at anytime at any day
 - Service provider needs trusted elements
 - The “common sense” is programmed by “Artificial Intelligence” ...



Identity Management: digital identities



▶ Multiples identities for the same individual

- Anonymous identities
- Identities dedicated to specific objectives

▶ How maintain identities?

- User view: identities are forgotten
- Identities administration: maintain identities

▶ Identity management

- To protect against identity theft
- To avoid identity abuse
- To offer convenience and intuitive interfaces



Privacy issues: view principles



▶ Offer mechanism of personal data management by citizens

- *Access to stored data*
- *Light procedure to protect data*

▶ Recognise limitations of any authentication factor

- *Make informed decisions*
- *Introduce fall-back procedures*

▶ Fight against the risk of exclusion by the systems

- *Education, age limits, physical or ethnic differences, data corruption*

Surveillance on the internet



- ▶ **There are only national authorities: no border on Internet !**
 - **Authorities have survey capabilities**
 - **Authorities fight against crime: paedophile, sexual crimes, terrorism, ...**
 - **But authorities can not stop freedom, stop citizen creativeness**

- ▶ **There is a need to link digital identities with a physical individual without “any” doubt**
 - **Some services require such trustworthy**
 - **To allow contractual relation and to fix legal obligations**



Biometrics on the internet (1/2)



- ▶ Citizens offers a huge quantities of information
 - → it increases the weakness of “something you know” as authentication factor
 - → quantities of pictures are posted on the internet
- ▶ Facial / DNA identification technologies used for convenience application

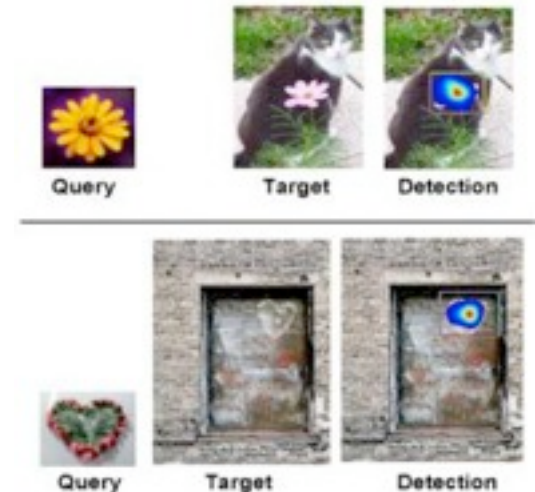


Available Today For Facebook Users: [Facial Recognitn](#) Tagging ...

ResourceShelf - USA

Photo Tagger [via Face.com], which launched to a limited group of users in July, scans a user's photo albums on the social-networking site, then lets him ...

Facebook [Facial-Recognitn](#) Tagger Goes Live



■ Biometrics on the internet (2/2)



▶ Biometrics technology:

- An important authentication factor: something you have, something you are
- Facial recognition is weak due to quantities of pictures available on the internet
- Biometrics technology is a good candidate if:
 - Multiple factors are used
 - No publication of the information
 - No surveillance mechanisms



➔ **Appropriate technical/legal framework**

■ Conclusions



- 1. Needs of trustworthy identity management on the web
(→ multiple authentication factors)**
- 2. Surveillance is useful but a framework is necessary for
ID management issue**
- 3. Biometrics technology offers opportunity but a
framework is mandatory to maintain trustworthy**



Thank you for your patience!