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# Digital Identity

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# History



*"On the Internet, nobody knows you're a dog."*

# Today



- ➔ **Digital identity is a psychological identity** that prevails in the domains of cyberspace, and is defined **as a set of data that uniquely describes a person** or a thing (sometimes referred to as subject or entity) and contains information about the subject's relationships to other entities.
- ➔ **A critical problem** in cyberspace is knowing with whom you are interacting. In essence, the problem is that "**on the Internet, nobody knows you're a dog.**" Currently there are **no ways to precisely determine the identity of a person in digital space....**

# Pride of E-stonia



- 10 years of successful ID-card history
- Population: 1.3 Mio
- Penetration: 1.15 Mio
- e-Used: > 0.5 Mio persons
- > 3.5 Mio authentications / month
- > 3 Mio digital signatures / month
- 25% of votes over Internet (2011)



# Personal info from the (e)ID



First name and last name



Personal Identification Code (PIC)

47302200234

Female born in 20th century

Birth date: 20.02.1973

*pseudorandom+checksum*

# Digital identity dream



- I can say who you are and you cannot deny it
- I cannot say that you are someone else without you (or anyone else) being able to prove me wrong

...

Regardless of the definition for „you“

# Desirable qualities of ID



- Uniqueness and persistency
- User control and consent
- Minimal disclosure
- Role-based identity
- Anonymity and pseudonymity

# Digital signatures



- Additional issues for WWW customs:
  - No standard for cryptography
  - No standard for signing format
  - No way to transfer trust





# THANK YOU!

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