



Privacy in Light of Future IT Technologies

Wojciech Cellary

Department of Information Technology
Poznan University of Economics

Mansfelda 4
60-854 Poznań, POLAND
cellary@kti.ue.poznan.pl
www.kti.ue.poznan.pl



Privacy

The essence of privacy is secret

**The biggest threat to privacy is
betrayal
not a breach of security**

⇒ **Security** can be protected by technical means

while

⇒ **there are no technical means of protection against
betrayal**

Sources of private data

⇒ Giving away private data by a stakeholder/customer in order to **settle the matter**

⇒ Generating private data of stakeholder/customer by **service provider** (e.g. doctor)

⇒ Giving away private data for social reasons – **social networking** sites

⇒ **Automatic** data collection

⇒ **Extraction** and **exploration** of knowledge

Explicit
data collection

Implicit
data collection



Most important IT development trends

⇒ **Multimedia**

⇒ **Collaboration**

- **Cloud Computing**
- **Service Oriented Architecture**
- **Social Networks**
- **Internet of Things**

⇒ **Semantics**

**All these trends seek to
improve the quality of life**

**Unfortunately, all of them carry an increased
threat to privacy**



Threats to privacy

- ⇒ Possibility of **surveillance** on a huge scale
- ⇒ Possibility of **identification** of people at any given point while doing any given task
- ⇒ Possibility of **recording** every human activities and their parameters
- ⇒ Possibility of **profiling** – computers will know us better than we know ourselves
- ⇒ Possibility of **influencing** on person's actions via his/her environment and context

Consequences of privacy violation

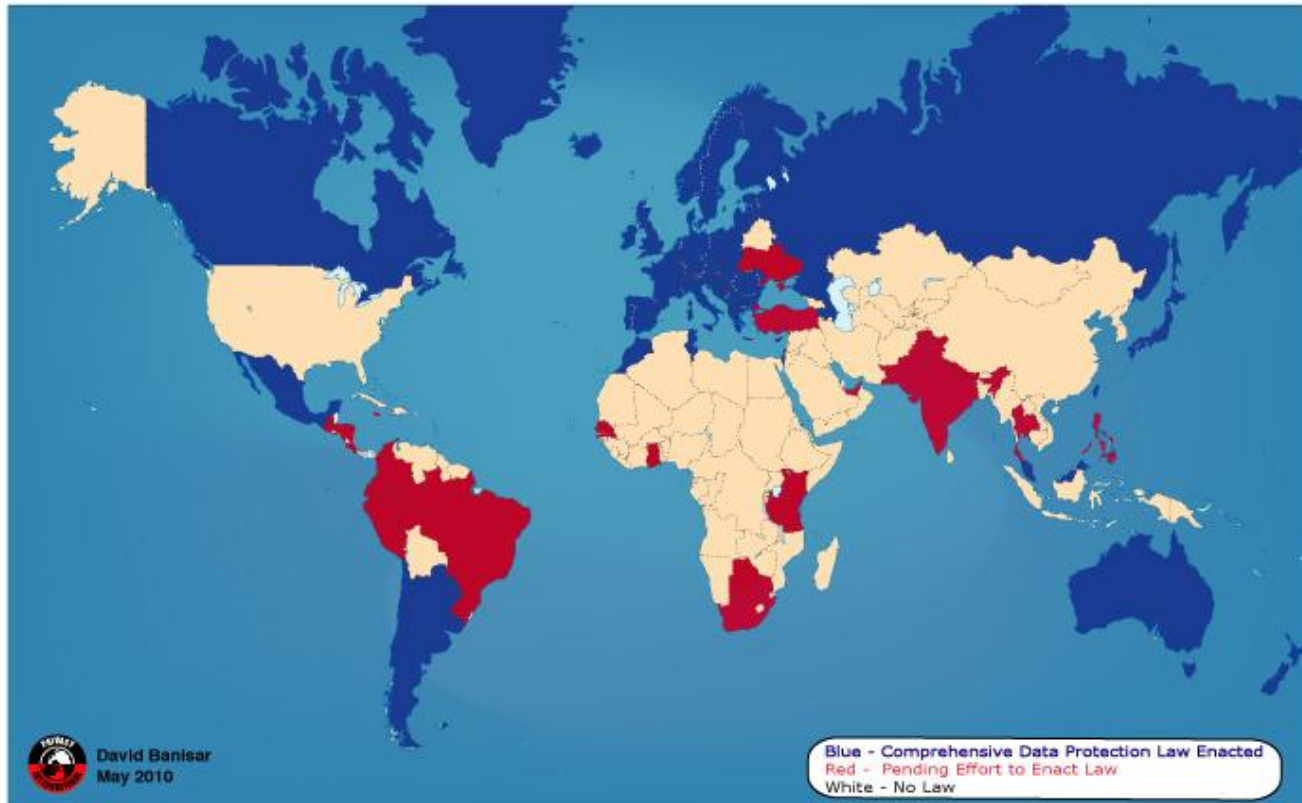
⇒ Hurt and betrayal

⇒ Possibility of manipulation

- by government **for public interests?**
- by business, including media **for profit**
- by people, including anonymous ones **for fun?**

⇒ Therefore, to reduce risk of privacy violation many people **step back** from **e-democracy** (civil rights) and **e-economy** (consumer rights) that is certainly bad

Data Protection Laws around the World (by David Banisar)





Conclusions

**Internet does not forget anything,
and certainly does not forgive**

**Everything that you record (let record)
about yourself in an electronic form,
may be used against you**



Conclusions

**There are no technical means
of protection against betrayal**

**The only effective protection of privacy is
ethics assisted by criminal law**



Thank you

Wojciech Cellary