# Privacy and Security: same beast?

Warm Welcome!

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same beast?

If it's not, why not?

If it's the same 'thing', how so?

privacy and security

We can talk about systems and their security but it doesn't make sense to talk about systems and their privacy

# Setting the Scene

So what is Privacy?

Same beast?

Data Privacy Laws

Privacy vs Security

Individual vs Collective

Same beast? Rights

What draws me to my research

# Concept of Privacy

Territorial privacy by protecting the close physical area surrounding a person

Privacy of the person by protecting a person against undue interference

Informational privacy by controlling whether and how personal data can be gathered, stored, processed or selectively disseminated.



privacy and security

**Security is a process** 

Privacy is associated with people

Security ~ know what to address with what means

Privacy ~ no agreed-upon methodology that supports the systematic engineering of privacy into system

same beast?

privacy and security

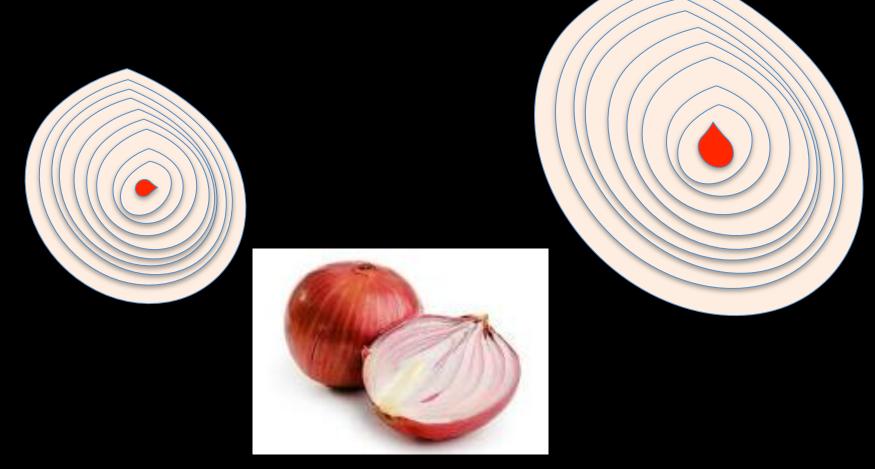
Conceptually and methodologically privacy is often associated with security

In terms of data privacy protection, security is seen as a way to protect or safeguard privacy Confidentiality ~ personal data

**Privacy** ~ surveillance

Privacy can mean different things at different times to a single person

Security is a chain; it's only as secure as the weakest link



The weakest link is people

## **EU Data Privacy Laws**

Directive 95/46/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (DP Directive)

### Complex interplay of entities Control of personal data

Directive 2002/58/EC the processing of personal data and the protection of privacy in the electronic communications (e-privacy Directive)

Privacy of the individuals

#### **GDPR**

- Any companies processing personal data
- The number of data subjects involved in the processing activities
- Controllers (not in the EU) processing activities, including monitoring aimed at offering goods and services to EU citizens

### **GDPR**

Definition

Consent

Breach notification

Fines

Controller, Processor and Producer Principles and Concepts

Demonstrate compliance

The Devil is in the Details...

# Privacy vs Security

Privacy is a complex issue : different users ; different expectations

Security: focus on obscurity tools

Data Privacy compliance:

privacy preserving and transparency
tools; access/portability, rectification
and erasure

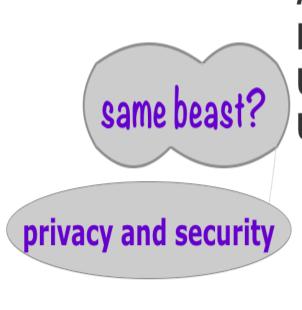
### Individual vs Collective

Privacy is often viewed as an individual right that must be sacrificed in order to attain other socially desirable, but competing goals.

#### zero-sum approach

Privacy refers to an individual's ability to exercise personal control over the collection, use and disclosure of one's recorded information

Positive sum approach



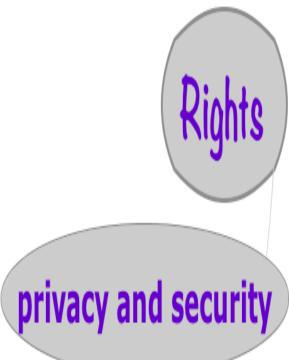
**Anonymity Pseudonymity Unlinkability** Unobservability **Confidentiality Integrity Authenticity Availability of personal** data are ensured

When security is compromised is privacy violated?

- Anonymity the state of being not identifiable within as set of subjects
- Pseudonimity being pseudonymous is the state of using a pseudonym as ID
- Unlinkability of two or more items of interests (subjects, message etc) means that within the system from the attacher's perspective, these items are no more and no less related after his observation than they are related concerning his a priori knowledge
- Unobservability the state of items of interest being indistinguisable from any items of interest (of the same type) at all

# pseudonym

(2a) 'pseudonym' means a unique identifier which is specific to one given context and which does not permit the direct identification of a natural person, but allows the singling out of a data subject;



Right to access/portability
Right to rectification
Right to erasure and to be
forgotten
Right to object

How to comply or/and put these into practice?

# Rights

Any measures for erasure of published personal data shall respect the right to freedom of expression, ...

Article 17 – paragraph 2 a (new)



Not absolute Rights
Right to Freedom of
Expression
Transparency &
accountability

privacy and security

Individual's right to privacy vs
State's right to know
Individual's right to know too!

### **Reconciling the Rights**

Can we do it?

Do we want to do it?

We must do it!

What is our stake?

Positive sum (win-win)?

Control over security and/or privacy?

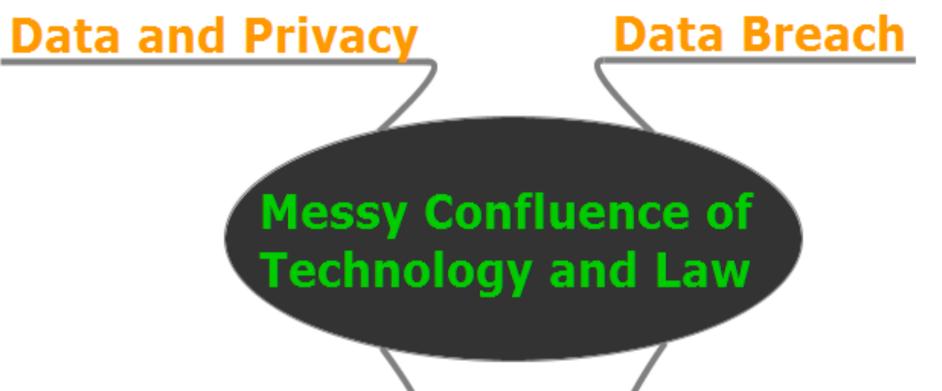
Privacy controls impact business goals

Who decides to ensure positive sum?

# Individual vs Organisation

As individuals, we employ privacy in the sense of revealing or withholding information about ourselves, in establishing and defining our relationships with others

Bonner, B. (2012) The Problem of the 'Problem' of Privacy



Cyber Security

**Cyber Events** 

In cyberspace, is it realistic or meaningful to talk about data and information assurance?

What needs to happen to assure that data loss and/or data breach will not cripple businesses operating in supply chains?

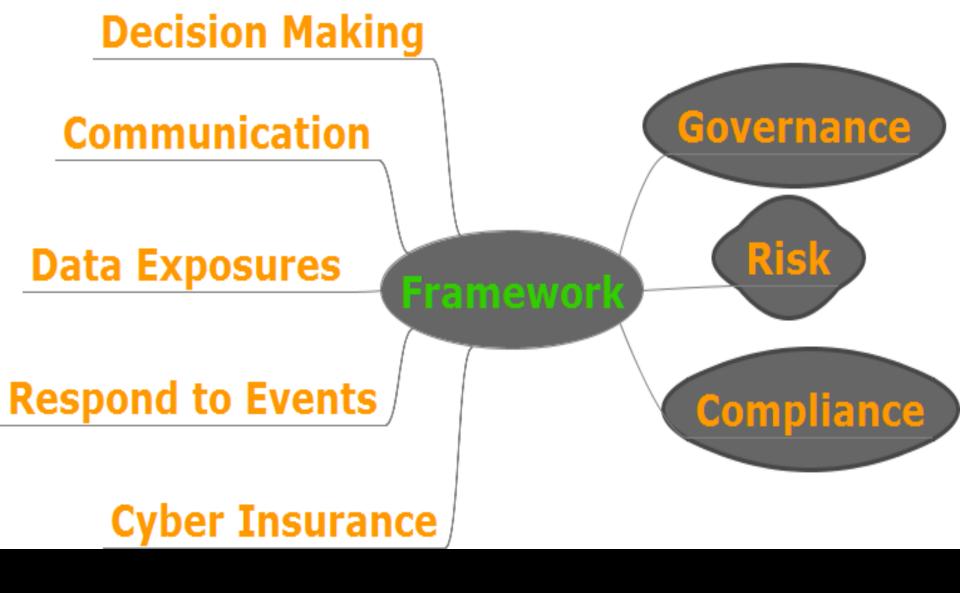
### Data Breach

(9) 'personal data breach' means the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data transmitted, stored Art 4

## Processing

Producers, data controllers and data processors shall take technical and operational measures to ensure such compliance in the design, set-up, and operation of automatic data processing or filing systems

Article 5 1a (98)



How do organisations address cyber risks in their digital supply chains?

# **Thank You**

**Cher Devey** 

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Any questions/answers raised will be noted without storage and disclosure of your identity

Your privacy is respected and

I trust others will do too Thank You

Cher