

# Seminar: Inverse Transparency

## Introductory Meeting

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## Data hogs in our lives



...

*You:* “Just use something else!”

*Other people:* “But it’s so useful... ;\_;”

# Data hogs at our employers



...

## Theory

Managers mustn't misuse personally identifiable information about their employees.

## Reality

Burden of proof: Employee



"I didn't fire you because of your performance data..."

**WIRTSCHAFT** URTEIL

### **Kassiererin wegen 1,30 Euro gefeuert**

Veröffentlicht am 24.02.2009 | Lesedauer: 3 Minuten

Source: *Welt*

# Inverse Transparency – The concept

What is Inverse Transparency?

In short: A new approach to data privacy.

- ▶ Grant full access to personal data to everyone, *but...*
- ▶ ...make all data usages visible (transparent).

Why Inverse Transparency?

- ▶ Misusage happens – we can try to make it unattractive
- ▶ At the same time allow legitimate and interesting data usages

# Seminar topics (selection)

## **Maintaining data privacy on access**

- ▶ Differentially private Jira analytics
- ▶ A Jira expert search plugin minimizing data misuse potential

## **Usable Inverse Transparency**

- ▶ Systematically measuring and achieving usable software
- ▶ Achieving personalized Inverse Transparency

## **Inverse Transparency for cloud infrastructures**

- ▶ Applying Inverse Transparency to containerized environments
- ▶ Developing a trusted Inverse Transparency infrastructure for cloud

## **Secure logging**

- ▶ A SGX-based secure logging framework
- ▶ Maintaining confidentiality when logging multi-owner data accesses

## Seminar topics: A note

- ▶ Additional topics will arise
- ▶ You may also suggest fitting topics

# What you will learn

- ▶ Literature topics
  - ▶ Conducting a literature review
  - ▶ Summarizing and classifying literature
- ▶ Implementation topics
  - ▶ Grounding your implementations in science
  - ▶ Empirically evaluating your software
- ▶ Writing a scientific paper
- ▶ Peer reviewing
- ▶ Presenting your results

## Administrative (1/2)

- ▶ Bachelor's and master's seminar
- ▶ Two seminar meetings over the course of the semester
  - ▶ Kick-off, Intermediate meeting
- ▶ Seminar itself (presentation session) is held in a block of 1–2 days
- ▶ Dates will be announced in a timely manner
  - ▶ Meetings at beginning and middle of the semester
  - ▶ Presentations in the last week of the semester



## Administrative (2/2): Application

- ▶ Registration via <https://matching.in.tum.de/>
- ▶ Apply via our application form (link on the seminar homepage) to get prioritized

Seminar homepage:

<https://www.in.tum.de/i04/teaching/seminar-inverse-transparency/>



<http://go.tum.de/364641>

Application form:

<https://wiki.tum.de/display/i4students/Application+for+Seminar+Inverse+Transparency>



<http://go.tum.de/105091>

## Our other seminars & practicums

Type	Title	Preliminary meeting
Seminar	★ Software Quality Trend Seminar CDTM	Wednesday, 14.07., 10:30 <i>CDTM students only</i>
Practicum	From Sub-Systems to Systems of Systems... Automotive Software Engineering	tomorrow, 13.07., 15:00 <i>ASE or RCI students only</i>

★ *Our premier seminar!*