



University of Zurich
Department of Informatics

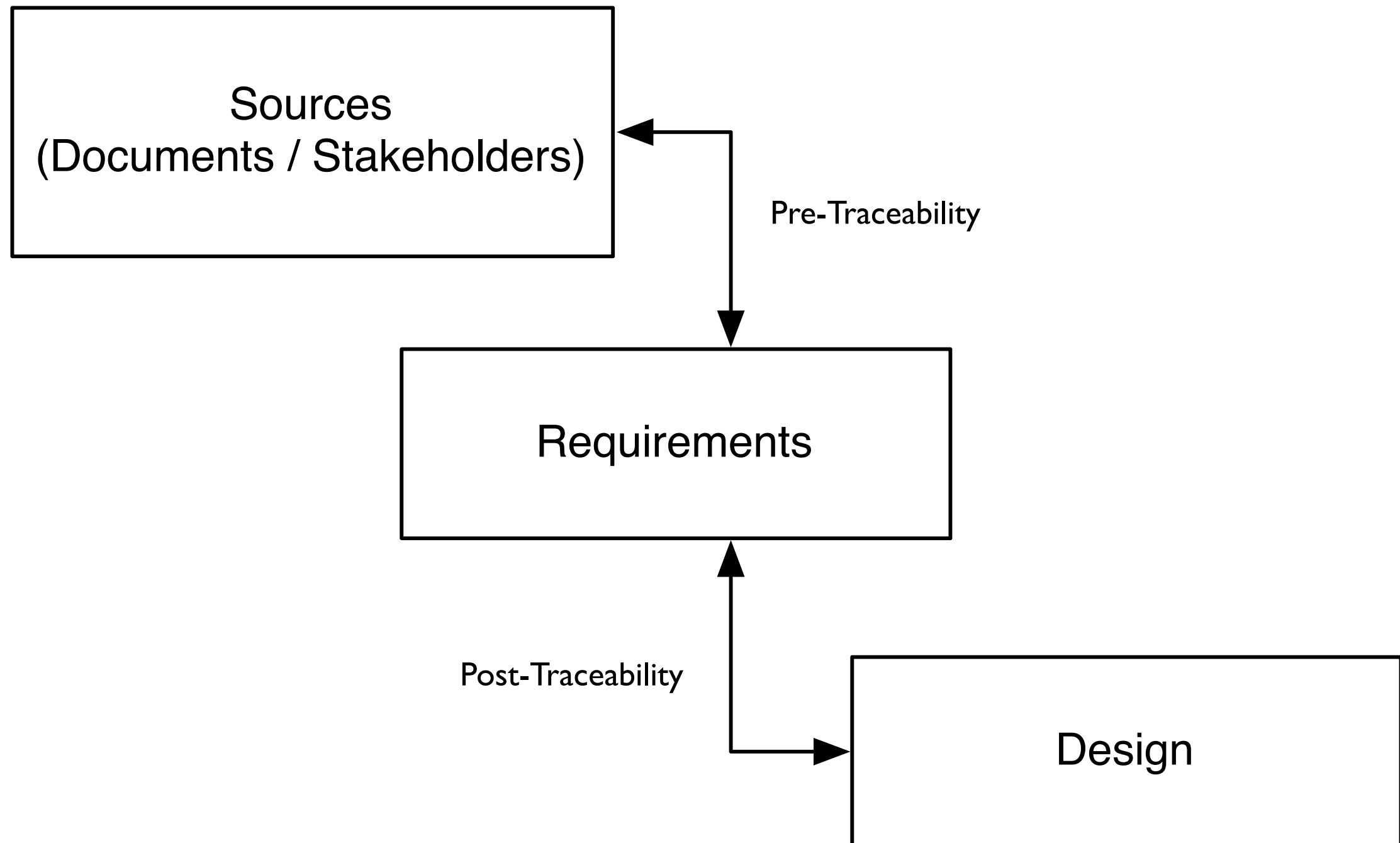


Establishing Requirements Tracability

Requirements Engineering II - Assignment I

Jaroslav Habr
Thomas Maurer

Requirements Traceability



Benefit of Traces

- **Increased understanding of design**
- **Impact analysis**
- **Identify issues early**
- **Avoid gold-plating**
- **More accurate project planning**

Overview

Manual Traceability

- **Establishing Traces by Requirements Engineer (Supported by Tools)**

Automatic Traceability

- **Establishing Traces by Tool**

Manual Traceability

■ Graphical Representation

- Connections between objects of different types
- Using labelled arrows

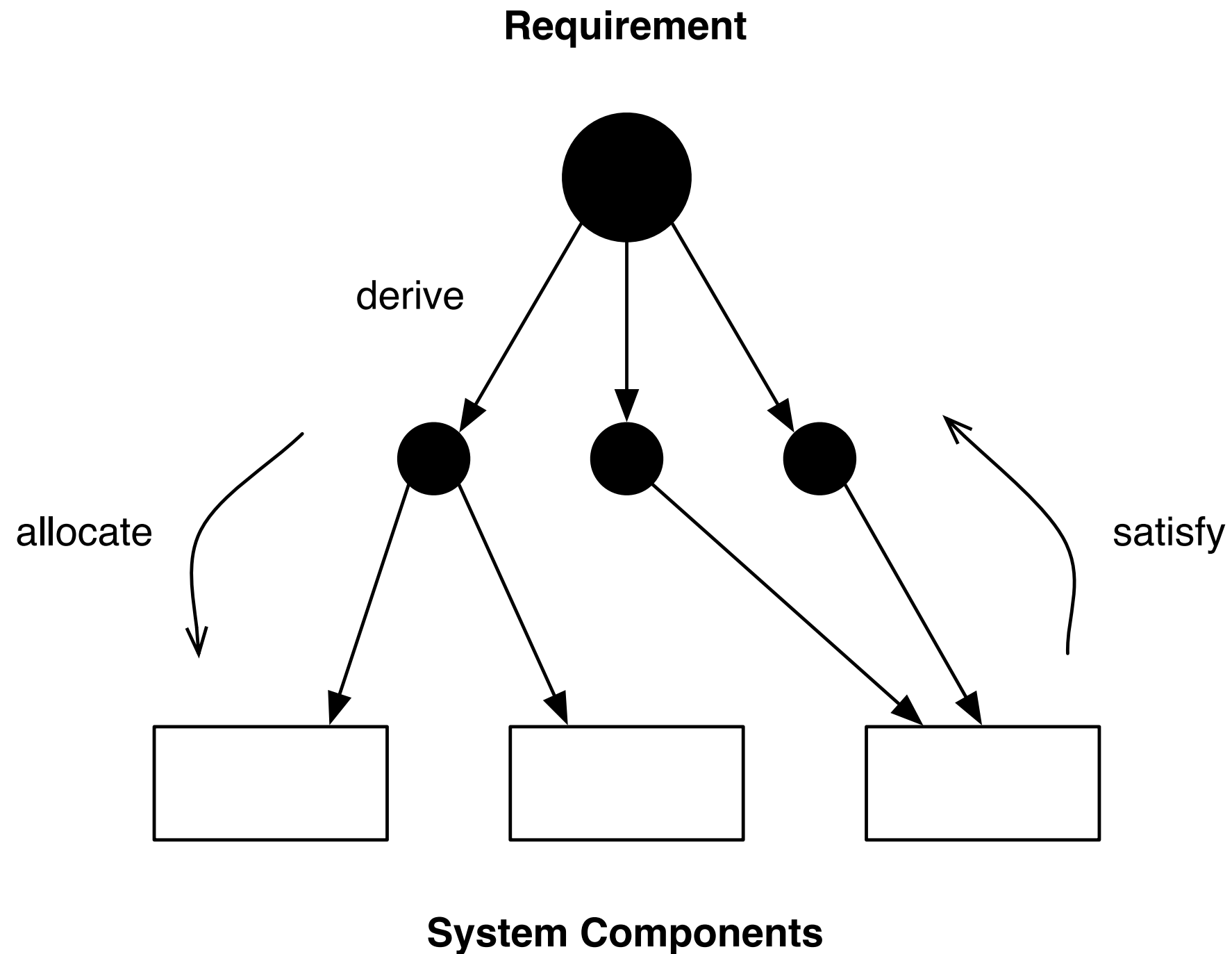
■ Traceability Matrix

- Two-dimensional
- Centralized
- Implicit (no rationale)

■ Hypertext

- Links between documents (i.e. requirements and design documents)
- Decentralized

Graphic: Example



Traceability Matrix: Example

	R1	R2	R3..
DD1	X		
DD2	X		X
DD3..		X	

R = Requirement, DD = Design Decision

Level of Detail

■ Low-end Use

- Requirements, System Components

■ High-end Use

- Requirements, System Components,
- Design Decisions, Rationale, Assumptions, Alternatives, Conflicts

■ Rich Traceability (Dick, 2005)

- Capturing of rationales

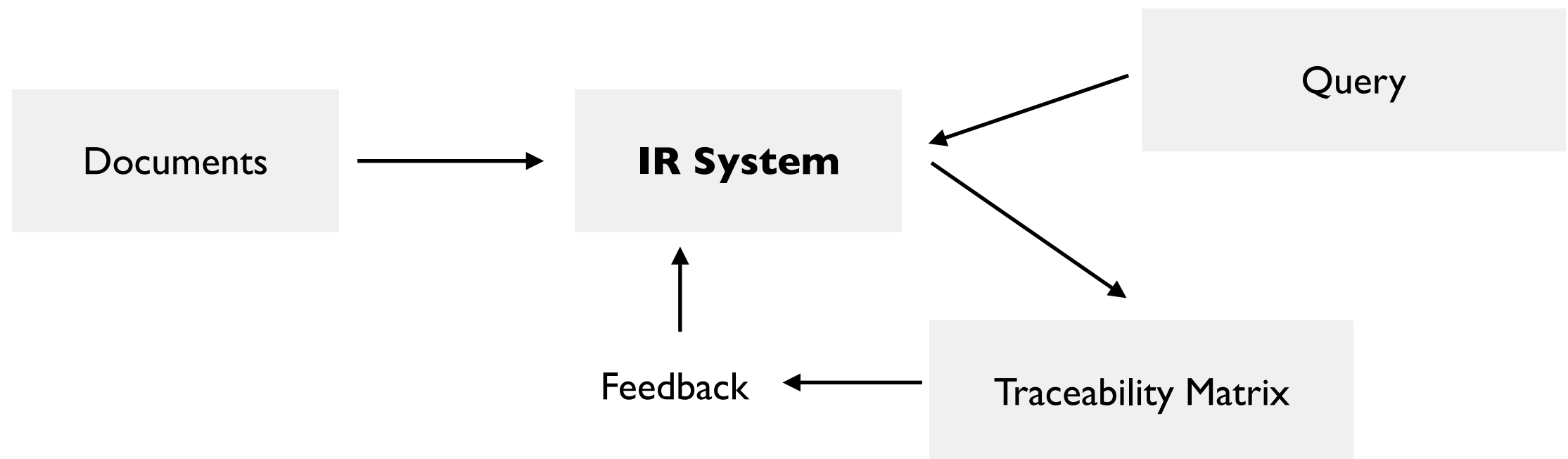
Automatic Traceability

■ Information Retrieval (IR) Techniques

- Definition:

Searching for documents, for information within documents and for **metadata about documents**

- Goal: Automatically generate Traceability Matrix



**Vielen Dank für die
Aufmerksamkeit**
