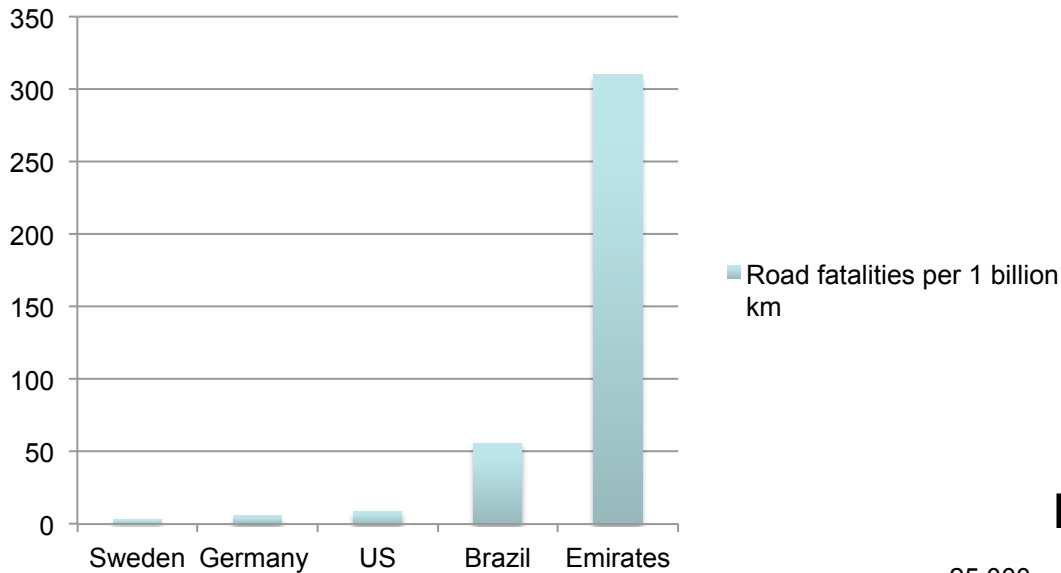


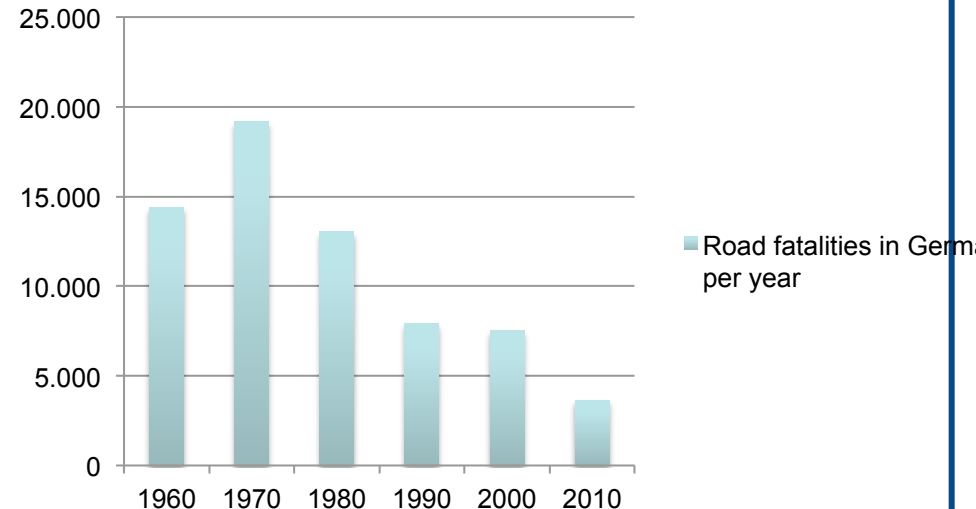
Assistive Systems for Data Protection and Security

Steffen Staab

Road fatalities per 1 billion km



Road fatalities in Germany per year



Road fatalities will not disappear, but

- **Technology**
- **Laws**
- **Public awareness**

have worked hand in hand and reduced them drastically

Open data

- Medical research
- Transparent government
- Traffic planning
- Effective public opinion



Close data

- Private medical data
- Employee protection
- Privacy of location
- Privacy of opinion

Objectives of opening and closing data are in contradiction. Therefore, violations of data protection and safety will not disappear, but

- **Technology**
- **Laws**
- **Public awareness**

need to work hand in hand to reduce them drastically

1. Encryption, Authentication, Authorization

- ◆ This is technologically known, but organizationally expensive – therefore not in place in general!!!!

2. Explaining consequences of opening data

- ◆ ***Data destiny*** (cf. Ringelstein, PhD thesis, Koblenz 2011)

3. Suggesting data protection methods

- ◆ ***Constraints on data destiny***
- ◆ ***Semantics of data purpose!***