Autonomics – Legal Framework and challenges in Germany and Europe

Prof. Dr. Dr. Eric Hilgendorf
University of Würzburg
Law and new technologies

- The development of new technologies depends on the normative (i.e. moral and legal) framework
- Law as an obstacle for technological development
- Law as a „technology booster“
Research Centre for Robot Law

- University of Wurzburg, Faculty of Law
- Founded in 2010
- Numerous activities
  - Internet Law/Internet of the Future
  - Robotics and the Law (2010, DFG)
  - European Greenbook on Law and Robotics
  - Legal Questions of the Use of Service Robots for the Elderly
  - Autonomous Cars and the Law
  - Autonomics and the law
Starting points

- Modern technology is developing rapidly in many areas
- The law must react to, control and possibly limit these changes
- In many areas such as biotechnology and computer law, this is already done quite successfully
- So far, autonomous systems have been neglected
Challenges – technological perspective

- Autonomous cars
- Service robots in hospitals/homes for the elderly
- Robots for medical purposes (e.g. operations)
- Autonomous systems for industrial purposes
- Military robots (drones)
- …
Challenges – legal perspective

- Admission
- Data protection/privacy
- Insurance
- Civil liability
- Criminal liability
- …
National vs. European approach

- One technology – many divergent legal systems
- From a practical point of view, national law is more important
- European Harmonization would be helpful, but it seems far away
- Greenbook on Law and Robotics
- Importance of legal comparison!
Methodology

- Cooperation between law and technology poses many interdisciplinary challenges

- General approach vs. bottom up approach
General approach to the topic „autonomous systems an the law“

- Can autonomous systems/robots be „persons“?
- Can autonomous systems/robots be punished?
- Can/Should autonomous systems/robots have (human) rights?
Bottom up-approach

- Analysis of the autonomous system (industrial robot, car, service robot …)
- Identification of legal problems
- Systematic exposure of legal problems
- Formulation of tentative solutions
- Criticism of these solutions in the light of practical applicability
- Formulation of improved solutions
- …
Kinds of Solutions

- Many problems can be solved inside the law as it is existing now
- Necessity of extensive interpretation of given law
- Necessity of new law?
  - Admission of autonomous cars?
  - Liability for damages caused by autonomous systems – do we need new forms of insurance?
  - Reform of privacy law?
- Comparison between different legal systems and even legal cultures
- International harmonization as the ultimate goal?
Thank you for listening!