

Robots and Responsibility from a Legal Perspective

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Overview

- Responsibility as Liability
- Legal Agents & Quasi-Agents
- Crime & Punishment
- Corporate Punishment
- Robots as Legal Persons
- Conclusions

Legal ≠ Ethical, but Close

- There are things that are Ethical, but not Legal
 - Speeding an injured person to the hospital
 - Acts of Civil Disobedience
- There are things that are Legal, but not Ethical
 - Rude & Obnoxious Behavior
 - Violating Trust outside of contracts

Responsibility as Liability

● Common concerns of Engineering Ethics

- Consumer Safety
- Negligence
 - Failure to take proper care
 - Failure to warn



Responsibility as Liability: Robots as Products

- Unique problems of robots
 - Autonomous systems
 - Complex material and social interactions
 - Potentially dynamic and unpredictable
 - Learning
 - Evolutionary Robotics
- Not all that unique:
 - Nano Technology & Bio-Engineering
 - Uncontrolled spread, unforeseeable risks

Responsibility as Liability: Robots as Products

● Industry Standards

- These are what often determine liability cases
 - What shall the standards be?
 - We still have the ability to shape these . . .
- (One reason for workshops like this!)

Agents & Quasi-Agents

- We can divide responsibility among multiple agents
- We can empower agents to act on our behalf
- We can limit the responsibility of an individual (as well as the rights)
- There are thus partial, or quasi-agents.

Crime & Punishment

- A crime, as opposed to a mere harm, requires a moral agent to commit it
- Moral agents can be punished to achieve:
 - Retribution
 - Reform
 - Deterrence
- What about robots?

Corporate Punishment

- Corporations are non-human legal entities
- Corporations have “No Soul to Damn,
No Body to Kick”
- Corporations can be punished financially
 - Serves functions of:
 - Retribution
 - Reform
 - Deterrence

Robots as Legal Persons

- Robots may not fear pain, loss of freedom, or even destruction
- It would require significant engineering to change this.
- Robots may not have any financial or material concerns, even if they do “have a body to kick”
- Always responsible humans involved

Conclusions

- Most pressing open questions:
 - What shall our industry standards be?
 - How can we ensure that human users of autonomous and semi-autonomous robots are held responsible?
 - How might we avoid the tendency to blame robots for problems that arise?
 - How do we ensure that robot development continues in ethical ways?

Meta-ethical Questions

- Is it ethical to build robots that are moral and legally responsible for their own actions?
- Whose interests and political purposes might be served by this?
- Can international law and treaties prevent or control the development of robotic warfare?

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