

# **Regulation towards optimal development and accepted deployment of Autonomous Robots (?)**

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## **Regulation towards optimal development and deployment of Autonomous Robots**

### **Outline**

1. **Autonomous Intelligent Systems**
2. **Two legal issues revisited**
  1. Non-contractual liability
  2. IP-rights in Robot Generated Works
3. **Legislative solutions?**
  1. Law as an instrument
  2. Levels and methods of regulation
4. **Opportunities and discussion**

# 1. Autonomous Intelligent Systems

- **Autonomous (?)**

- Relates to the level of human intervention
- A spectrum; 'decision making capacity' correlates with need for 'human intervention'

- **Intelligent (?)**

- Ability to adapt behaviour to new circumstances
- Keywords: learning, reasoning, problem solving, (language) perception etc...

- **Systems (?)**

- Non-human entities

- **Ultimately:** *"non-human entities that are capable of perceiving information delivered as language or otherwise, that are able to learn, reason and make decisions based on their 'experience', without direct human intervention or instruction"*

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## **2. Legal issues...**

- **Private Law**
  - Liability issues
  - Contracting
  - Ownership
  - Legal entity?
- **Administrative law**
  - Aut. Syst. decision making
- **Criminal law**
  - Liability issues
- **Intellectual Property Law**
  - Robot Generated Works
  - How to stimulate innovation
- **Human Rights**
  - Aut syst as object of human rights
  - Aut syst as subject of human rights
- **Media & Communication Law**
  - Aut syst as Audiovisual Media Service?
- **Private/pub. International Law**
  - Applicable law
  - Competent court

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## 2. Legal issues: non-contr. Liability (1)

- **Autonomous car from mr. Smith**

- Optimizes steering software
- However 'buggy':
- Crashes into Ms. Jones...
  - Ms. Jones' car total loss
  - Pains in the neck and back.

- **Ms. Jones sues**

- Car manufacturer
- Mr. Smith

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## 2. Legal issues: non-contr. Liability (2)

- **Producer liable?**

- for defective products he brought into circulation
- which do not provide level of safety that one may expect
- despite exceptions:
  - “whenever “it is probable that the **defect** which caused the damage **did not exist** at the time when the product was put into circulation by him [the producer], or that this defect came into being afterwards”;
  - “whenever “the state of **scientific and technical knowledge** at the time when he [producer] put the product into circulation was **not** such as to enable the existence of the defect to be **discovered**”

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- EU Product Liability Directive
- Implemented in national law



## 2. Legal issues: non-contr. Liability (3)

- **Mr. Smith liable?**

- The person possessing an object
- of which it is of common knowledge
- that whenever it does not have the properties
- one may expect it to have,
- and imposes safety hazard to persons/goods
- is liable for damages it causes.

- Dutch rules on liability for objects in possession



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## 2. Legal issues: non-contr. Liability (4)

- Product liability directive & Dutch Private Law do not address 'autonomy'
- **Is regulatory change necessary?**
  - In light of promoting development and societal deployment of robotics?

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## 2. Leg. Iss.: Robot Generated Works (1)

- **IP-rights:**

- Grant a temporary monopoly
- On the exploitation of certain intellectual creations
- f.i. Copyright, databases rights, patents

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- Acquis communautaire:
- 9+ EU directives/  
Regulations



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## 2. Leg. Iss.: Robot Generated Works (2)

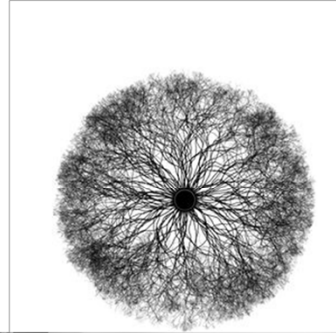
- Robot generated works as protectable subject matter?

• <https://www.youtube.com/watch?v=5FMSo2W2ET8>

[http://www.youtube.com/watch?v=bbdQbyff\\_Sk](http://www.youtube.com/watch?v=bbdQbyff_Sk)

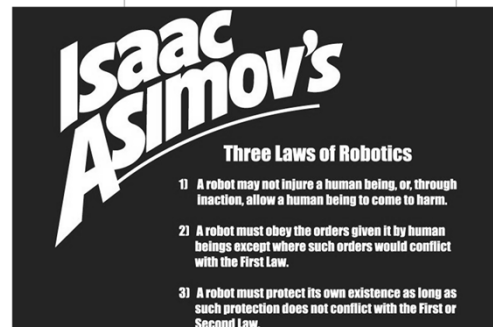
- Anthropocentric requirement
  - creativity as human value

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### 3. Legal solutions?

- Based on the indicated challenges:
- Do we need a different kind of (robotics) law?



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## 3.1 Law as an instrument

- Of what purpose?
  - Innovation?
  - Protection of (weaker) parties?
  - General welfare?
  - Deal with ageing population
  - Sustainability?
- Probably all together, in different combinations
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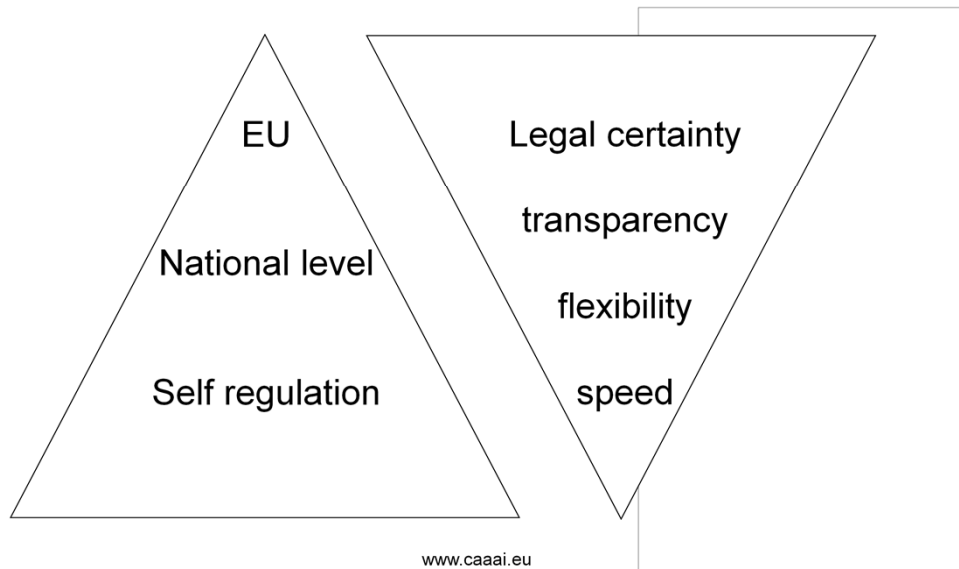
## 3.1 Law as an instrument

- Law must seek a balance
  - Between providing a certain level of legal certainty and consumer protection
- and
- not over-regulating causing a hindrance for innovation
- For example: 'law in cyberspace'



Quote: Baldwin, Cave & Lodge (eds.) *The Oxford Handbook of Regulation*

## 3.2 Levels of regulation



## Wrap up:

- Keep finding the discrepancies between robotics and law
- In the mean time: investigate need for legislative adjustments
- Investigate the best mode(s) and level(s) of regulation,
- keeping in mind:
  - Promotion of the development of robotics in Europe
  - Promoting accepted deployment into society
  - Legal certainty
  - Flexibility
  - Transparency



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# **Thank you -**

## *Discussion*

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