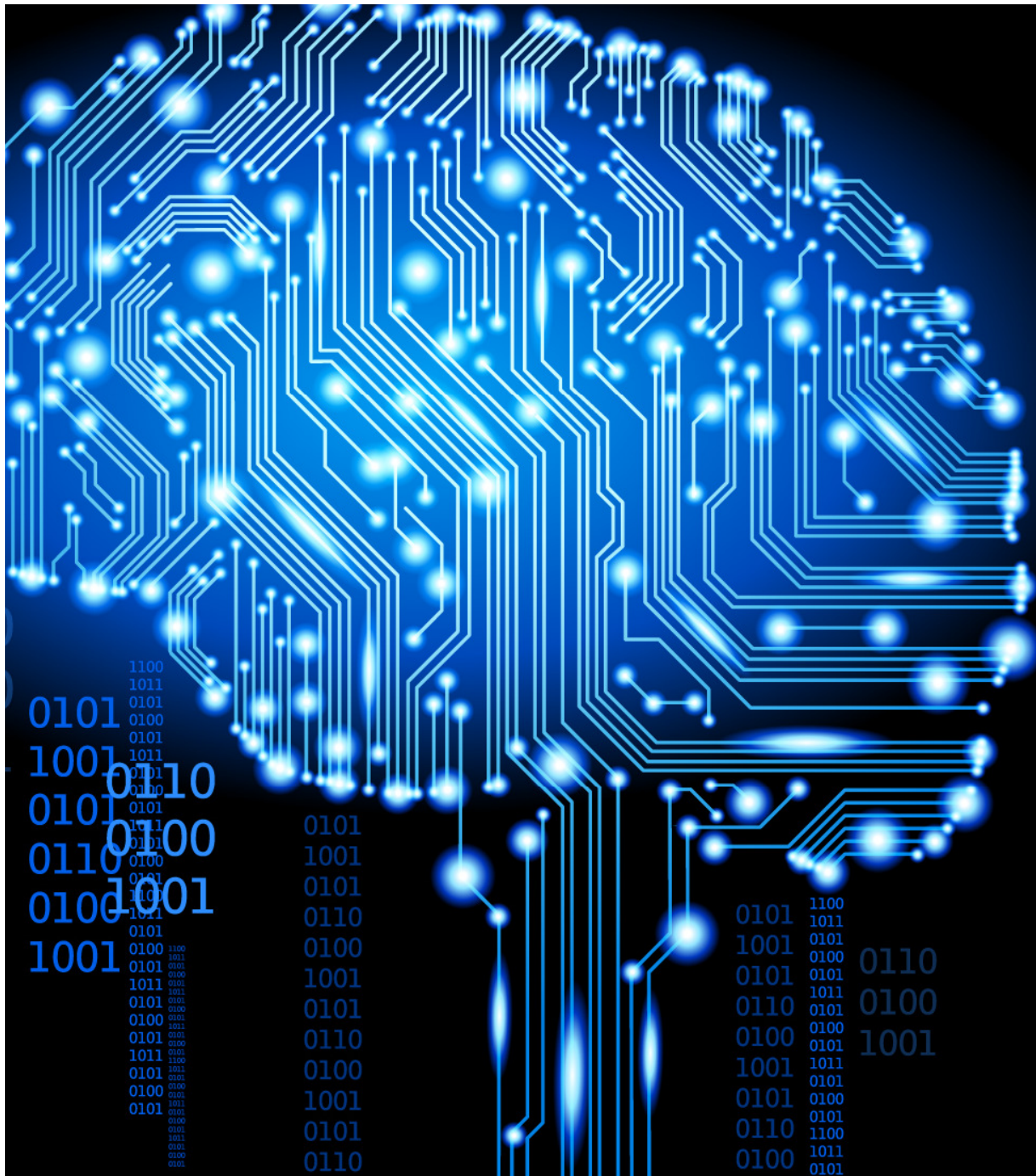# Intelligent Agents and the Law

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"**People worry that computers will get too smart and take over the world, but the real problem is that they're too stupid and they've already taken over the world.**"

(P. Domingos)

Outline

- The Current Developments of Robotics and AI (form a legal perspective)

- Overview over the Legal Challenges

- Some Questions from the Perspective of Criminal Law
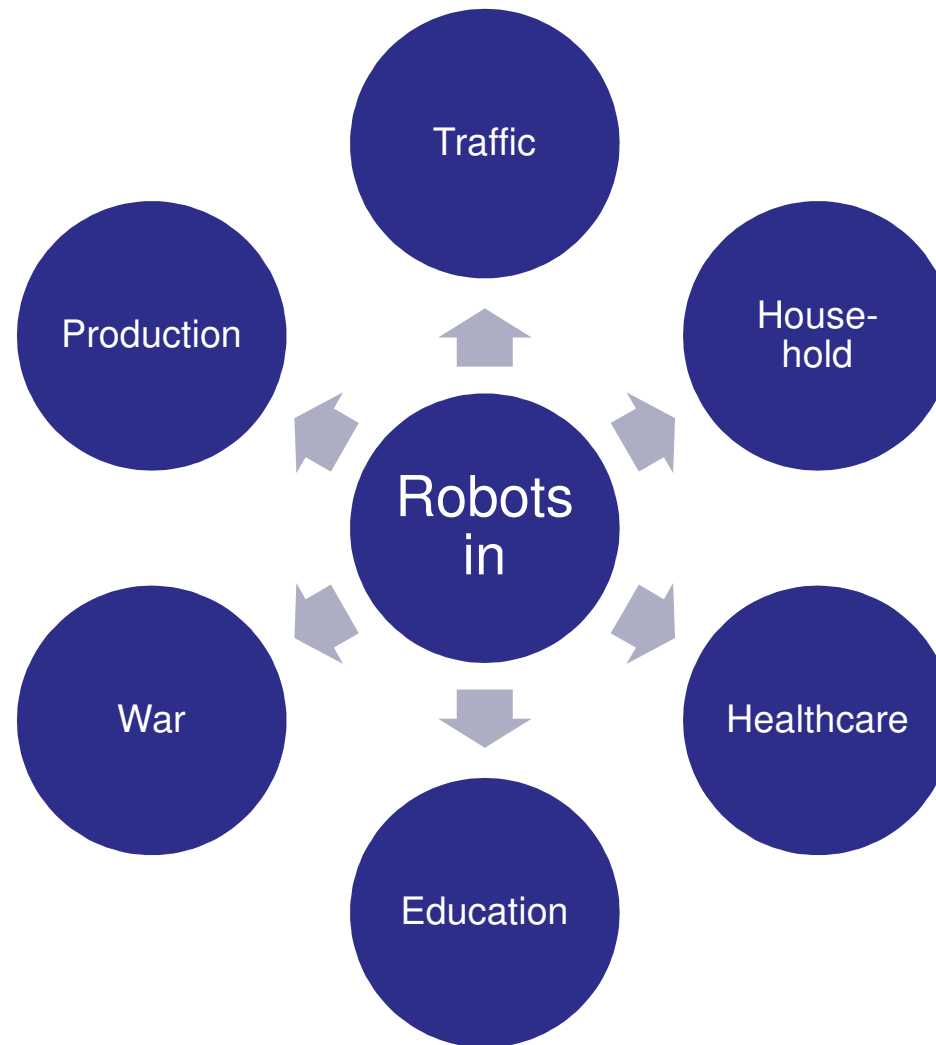
- Summary

Example

Radiologist A is choosing a specific diagnosis, based on suggestions of a program which is using Big Data and some form of AI. The chosen diagnosis proves itself wrong causing the wrong therapy and bodily harm of the patient.

The right diagnosis was not suggested by the program because the data fed on this diagnosis were biased and mostly wrong. The reason for this cannot be found out ex post.
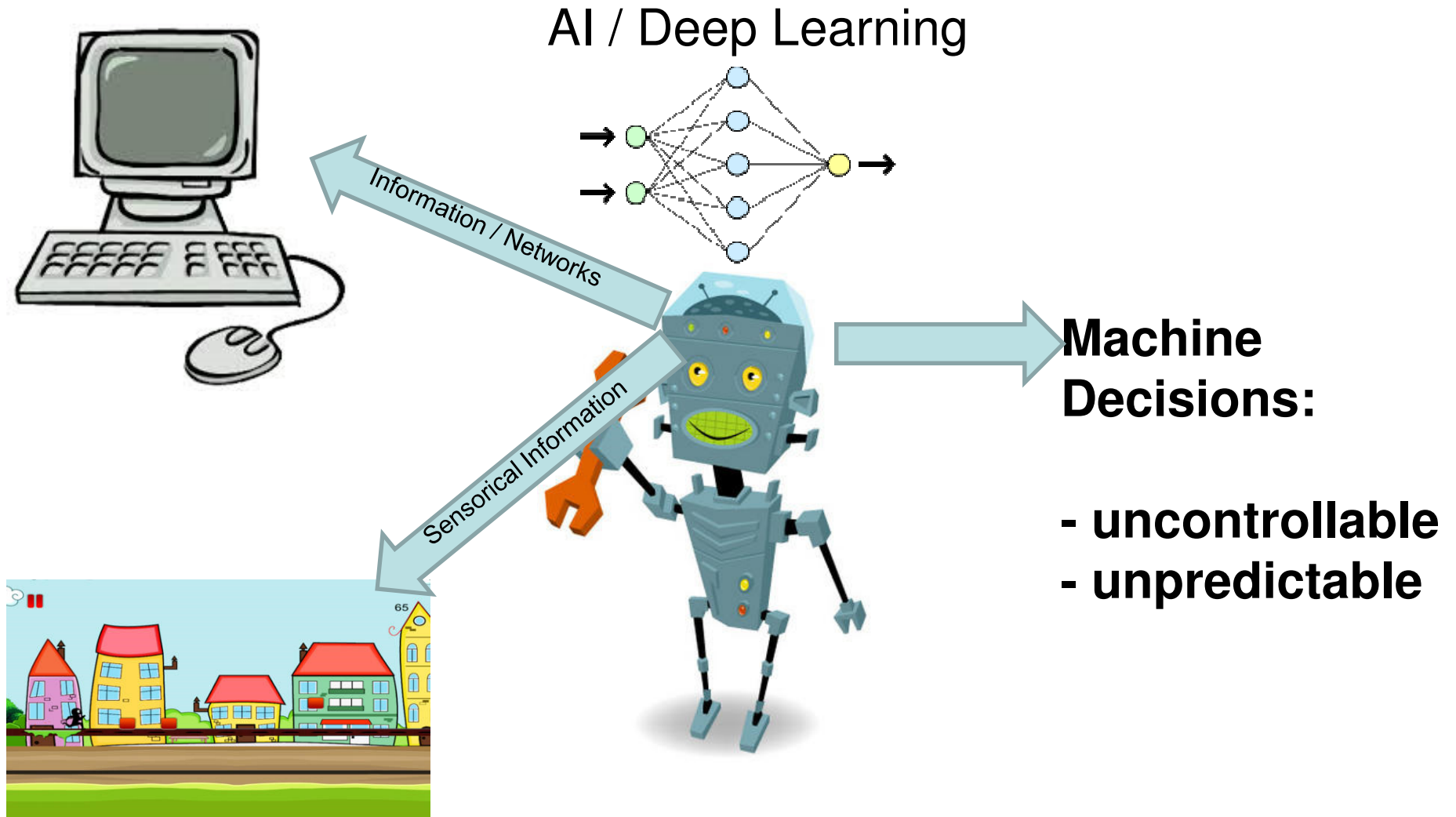
Without the program, the radiologist might have found the right diagnosis as it is part of her everyday practice, but because it was not suggested by the program, she did not think of it.

1. The Current Development of Robotics and AI

Robotics and AI in different areas of life

What is so special?

AI / Deep Learning

Information / Networks

Sensorical Information

Machine Decisions:

- uncontrollable
- unpredictable

Transfer of Decision Making vs. Human in the Loop

- For the future, Robotics and AI are aiming at transfering some decisions fully onto machines

- Examples: Self-Driving Cars, Autonomous Weapon Systems

- At the moment, in most cases there still is a „human in the loop"

- Examples: the driver supervising the car, the drone pilot pressing the button, the doctor choosing from the diagnosis suggestions by the computer programme (image recognition)

- Some people demand for specific areas to leave it that way

2. Overview over the Challenges for the Law

Legal Problems caused by Robotics and AI

- Civil (Private) Law

    - Contract Law (electronic agents and contracts)

    - Liability (within contracts and other)

- Administrative Law

    - Conditions for research in robotics / AI (risks?)

    - Requirements for usage in specific areas of life

- Criminal Law

    - Specific part (weapons / vehicles)

    - General part (negligence)

Some Specific Legal Problems

- Intellectual Property / Patent Law – opus of a machine

- Labor Law – can one force workers to interact with robots?

- Data Protection Law – whose data?

- Dilemmata (sacrifice of one life to protect others)

3. Special Problems in the Medical Context

Negligence

- High standard of care because of importance of potentially violated goods

- Possibilities for research and tests of new technologies – even if unpredictable?

- In some cases even obligation to use them?

Consent of the Patient

- Specific information necessary or just "new" technology?

- Risk assessment

- Persons not competent to give consent

Data Protection

- Highly sensitive data

- Protection even by criminal law

- Protection by design?

Liability Diffusion

- Debates about „foreseeability", „adequate risk" etc.
- Debates about shared responsibility (in connection with profit?)

- Some areas without criminal responsibility

- Some areas maybe even without civil (financial) liability

P: Does society need someone being liably / responsible?

P: Should we make the Human in the Loop a scapegoat?

4. Possible Solutions

Reassassment of Liability / Responsibility?

- Programmer

- Producer

- Clinic

- Doctor

- Insurances

- Society?

Electronic Personhood

- Is it possible to create legal status for machines?

- Does it make sense to create such a status?

- What are the conditions of the status?

- What are the legal consequences?

- What are the social consequences?

4. Summary

- The development in robotics and AI will pose enormous challenges for criminal law.

- Traditional concepts of attribution, foreseeability, adequate risk, defences (trolly-problem) or guilt have to be adjusted.

- One also has to discuss in which situations and to which degree society can bare risk without responsibility.

- To transfer our existing concepts onto the „human in the loop" will be, for many cases, the wrong solution.

Thank you for your attention!

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