

Computer ethics (?)



L. Consoli, 01-12-2021

Food for thought I

Is this the future?

The broader topic: autonomous machines (we are not talking about intelligent machines...yet)

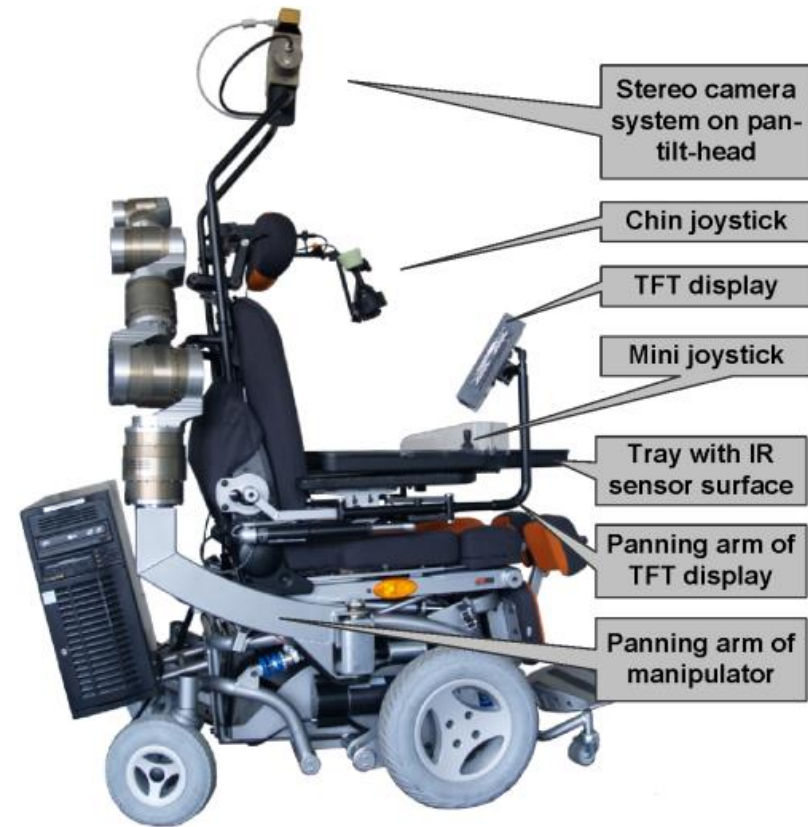
- How do you think about responsibility / liability / accountability?
- Relationship between the concept of '(moral) agent' and 'autonomous machine'
- Later on we can add (artificial) intelligence...



Lethal autonomous machines

‘Killer robot – armed autonomous systems
capable of killing without human input

Ideas?



Care-Providing robot FRIEND





**WOULD YOU TRUST A ROBOT TO TAKE CARE OF
YOUR GRANDMA?**

SHOULD OWNERSHIP INFLUENCE DECISION MAKING OF A CARE ROBOT?

Consider a personal care robot capable of executing everyday nursing tasks at home, comparable to a human nurse.

Case 1: Emma is a 68 years old woman, and an alcoholic. Due to her age and poor health, she's unable to perform everyday tasks such as fetching objects or cooking for herself. Therefore a care robot is stationed at her house to provide the needed services. Her doctor advises her to quit drinking to avoid worsening her condition.

When Emma commands the robot to fetch her an alcoholic drink, should the care robot fetch the drink for her? What if Emma owns the care robot?

When a patient makes a request that goes against his/her doctor's advice, should the robot's decision to obey or disobey depend on who owns the robot (e.g. family member, hospital, insurance company)?

(Source: <http://www.openroboethics.org/>)



Food for thought II

Deepfakes

Artificial Intelligence

- DEFINITIONS

“the study of ideas that enable computers to be intelligent.”

"the study and design of intelligent agents"

Intelligence?

Artificial Intelligence

- INTELLIGENCE
- Definition
 - ...ability to reason?
 - ...ability to acquire and apply knowledge?
 - ...ability to perceive and manipulate things?

Goals of AI

- Make computers more useful

“Computer scientists and engineers”

- Understand the principles that make intelligence possible

“Psychologists, linguists and philosophers”

Points of view

- Strong AI: all mental activity is done by computing (feelings and conscience can be obtained by simple computation)
- Soft (weak) AI: mental activity can only be simulated
- Opinions are not the same ethically speaking when treating intelligent beings or apparently intelligent beings (**or are they?**)

What makes AI a moral issue?

- Rights (private life, anonymity)
 - Duties
 - Human welfare (physical safety)
 - Justice (equality)
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- Ethical problems resulting from AI and intelligent systems can be divided into 3 main sections

Information Control and Reasoning

What makes AI a moral issue?

- 1. Information and communication

Intelligent systems store information in databases. Massive management of information and communications between systems could threaten private life, liberty or dignity of users.

What makes AI a moral issue?

- 2. Control applications – Robotics

Common problems of classical engineering: guarantee personal safety (physical) and take responsibilities with the environment.

Basic safety in robotics : universal laws stating rules about behavior between robots and human (robots can not injure humans, robots must protect humans...)

What makes AI a moral issue?

- 3. Automatic reasoning

Idea: computers taking decisions by themselves

Problem: trust in intelligent systems

Examples:

- Medical diagnosis by symptoms
- Artificial vision
- Automatic Learning
- Natural language processing

New ethical problems !

Automatic Reasoning

- Ethical problems
 1. Computers have no consciousness
 - They can not take responsibility of their actions
 - Are the creators responsible? The company in charge?
 - This way final decisions are always taken by humans
 2. A consciousness AI is developed
 - Could a computer simulate animal or human brain in order to receive the same animal or human rights?
 - Responsibilities

Consciousness AI

- Definition:

Consciousness

“an alert cognitive state in which you are aware of yourself and your situation”

AI systems would not only get rights, but also they would want to have rights.

Consciousness AI

- Trust: Automatic pilot VS. automatic judge, doctor or policeman
- Equality problems: Could conscious computers work for us? Would not they become slaves? Do we have the right to turn off a conscious computer?

AI Limits

AI depends on

- Laws and economics
- Technology
- Ethics

AI in the future

- Education in AI ethics
- Think about future goals of AI
- Decisions taken will lead to new ethical problems

Conclusion

- Current AI ethics are quite undefined
- Everyday new controversial discussions are held around AI in the future
- AI wants to create something we do not really know: intelligence
- What is intelligence could be find out by AI researching
- We can not think about AI without ethics