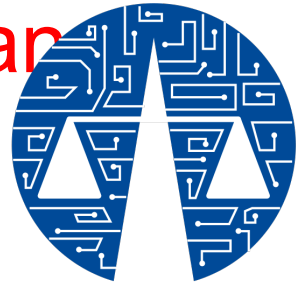
SHERPA PROJECT

# Investigating the Ethical and Human Rights Implications of Smart Information Systems




Prof. Bernd Carsten STAHL, De Montfort University, Leicester, UK

www.project-sherpa.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 786641

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# What can I say that is novel?

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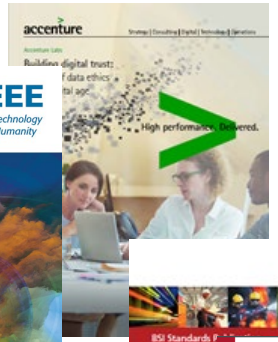
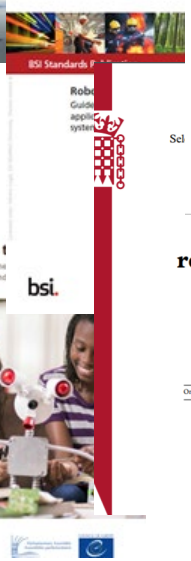
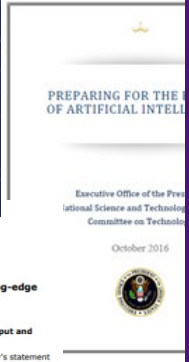


Version 2 - For Public Discussion

IEEE
Advancing Technology for Humanity



Sel

OECD
BETTER POLICIES FOR BETTER LIVES

**AI in the UK: ready, willing and able?**

Parliament

TEXTS ADOPTED

Ordered to be printed 13 March 2018 and published 16 April 2018

Published by the Authority of the House of Lords

HL Paper 100

European Commission - Press release

**Artificial intelligence: Commission kicks off work on marrying cutting-edge technology and ethical standards**

Brussels, 9 March 2018

**The Commission is setting up a group on artificial intelligence to gather expert input and rally a broad alliance of diverse stakeholders.**

The expert group will also draw up a proposal for guidelines on AI ethics, building on today's statement by the European Group on Ethics in Science and New Technologies.

From better healthcare to safer transport and more sustainable farming, artificial intelligence (AI) can bring major benefits to our society and economy. And yet, questions related to the impact of AI on the future of work and existing legislation are raised. This calls for a wide, open and inclusive discussion on how to use and develop artificial intelligence both successfully and ethically sound.

Commission Vice-President for the Digital Single Market Andrus **Ansip** said: *"Step by step, we are setting up the right environment for Europe to make the most of what artificial intelligence can offer. Data, supercomputers and bold investment are essential for developing artificial intelligence, along with a broad public discussion combined with the respect of ethical principles for its take-up. As always with the use of technologies, trust is a must."*

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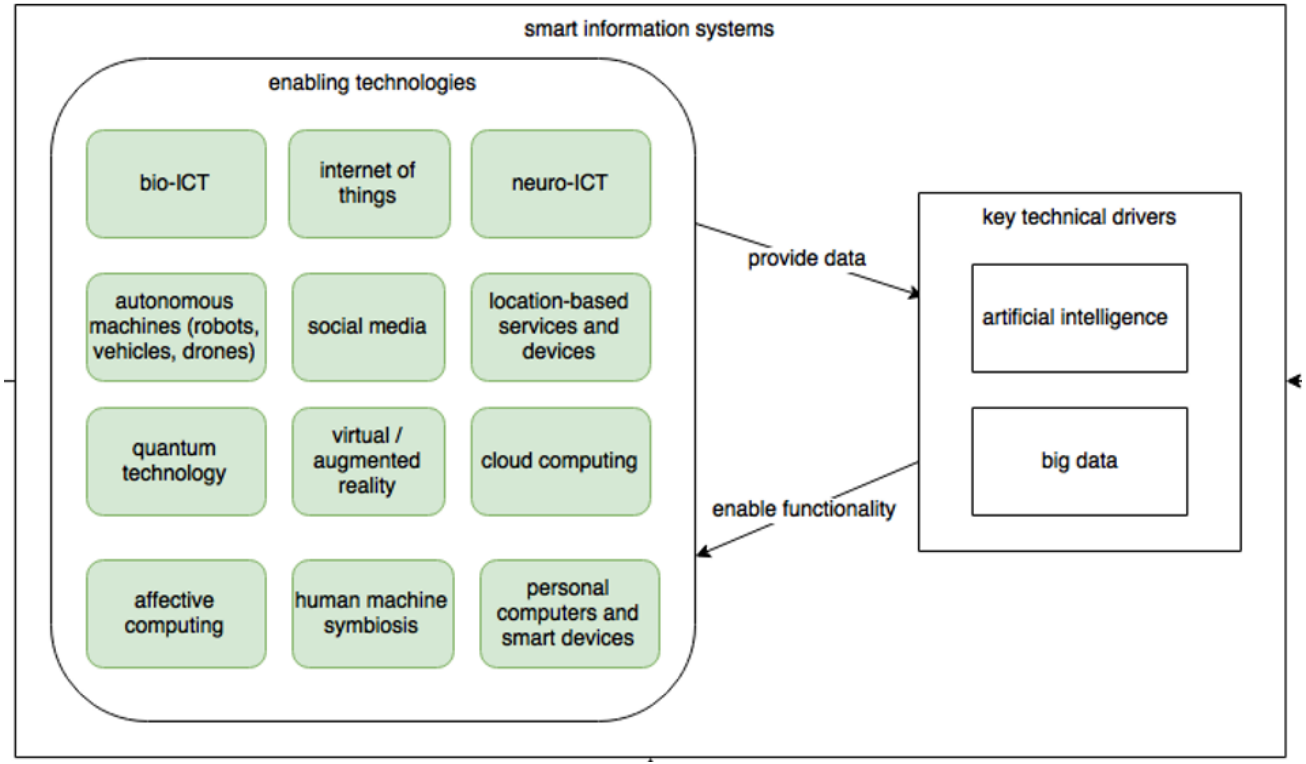
# Smart Information Systems

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# Desired outcomes

- Economic growth for all
- Addressing global challenges (Sustainable Development Goals) & societal missions
- Better (personalised) services
- Increased human capabilities (compensate disabilities)
- Inclusion & democratic participation
- Empowerment

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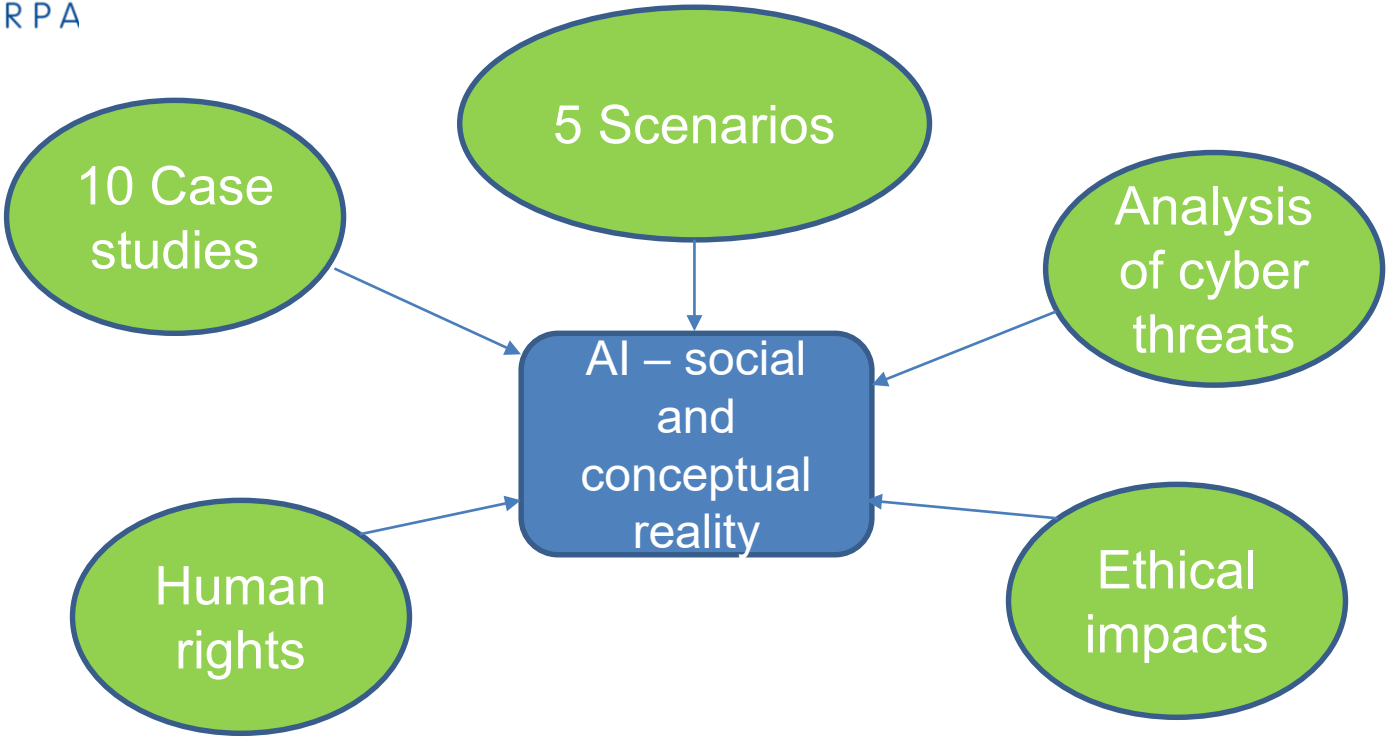
# Understanding AI – A Multimethod Approach

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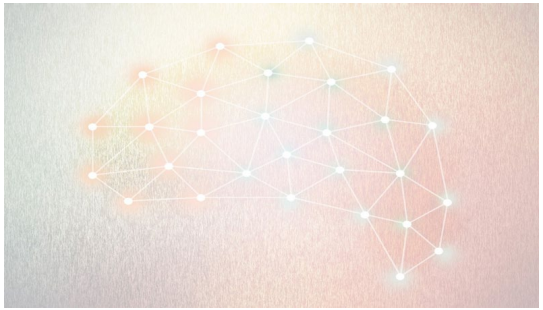
# Case Studies

IoT

Government

Agriculture

Sustainability - Smart Cities



Science

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# Case Studies

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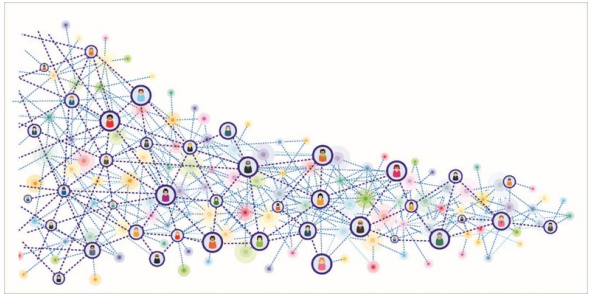
Insurance

Energy and Utilities

Communication, Media



Retail and Trade

Manufacturing

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# Scenarios

Predictive Policing

Warfare

Mimicking Technologies

https://www.project-sherpa.eu/future-scenarios/

Education

Self-Driving Cars

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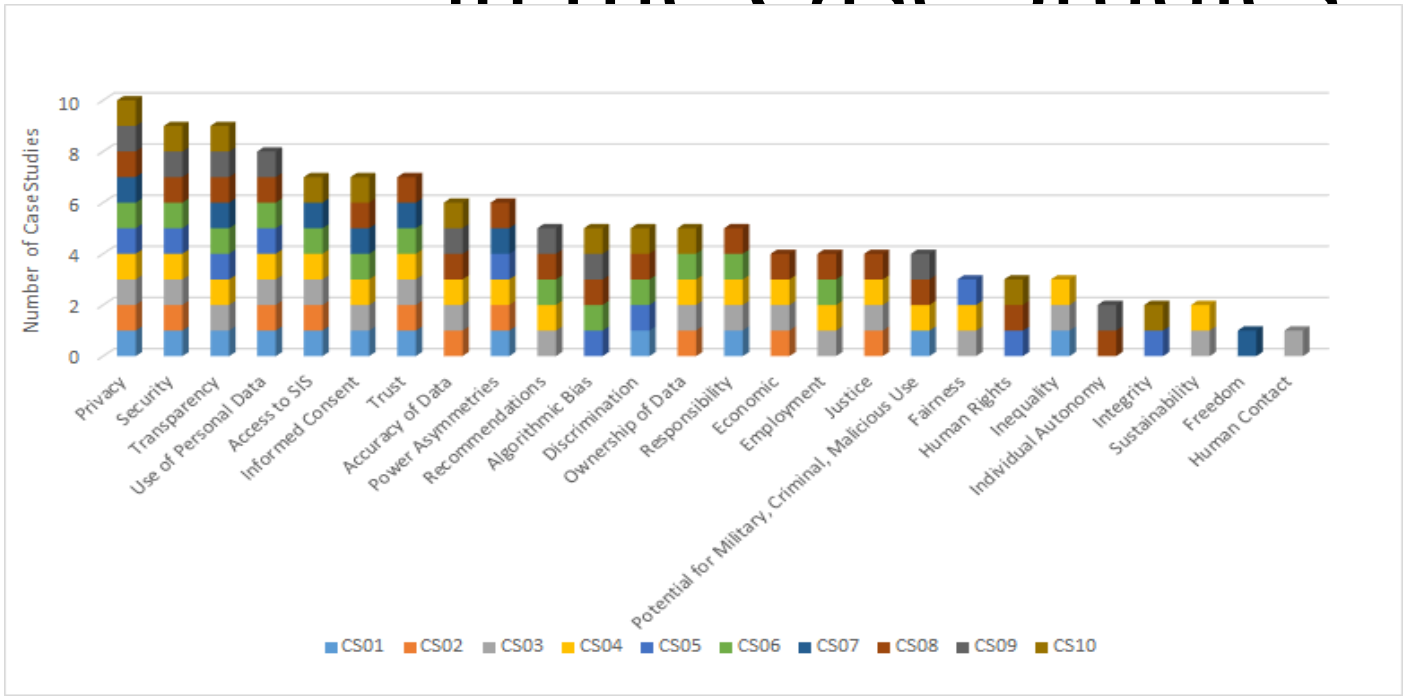
# Prevalence of Ethical Issues in the Case Studies

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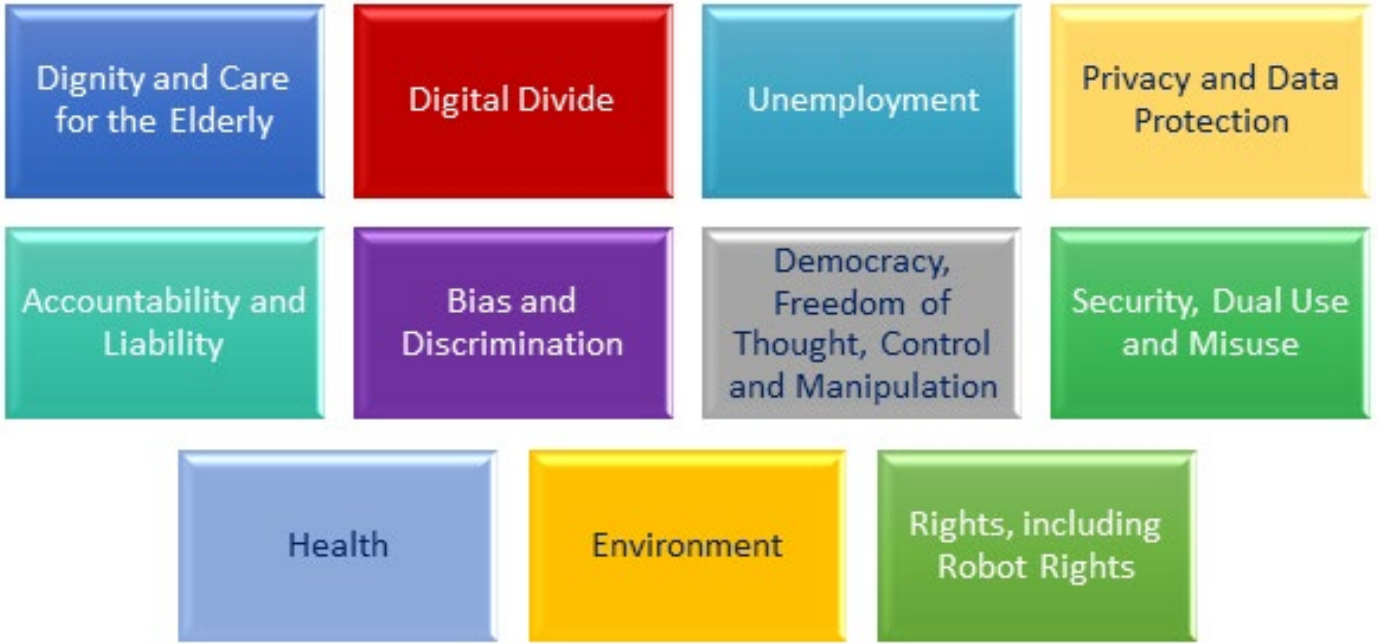
# Human Rights Analysis

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# AI definition

- EU AI Communication (April 2018)
  - ‘Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions - with some degree of autonomy - to achieve specific goals’
- “As soon as it works, no one calls it AI anymore …” (Meyer, McCarthy, 2011)
- General (broad) AI v narrow AI

EUROPEAN COMMISSION

Brussels, 25.4.2018
COM(2018) 237 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Artificial Intelligence for Europe

{SWD(2018) 137 final}

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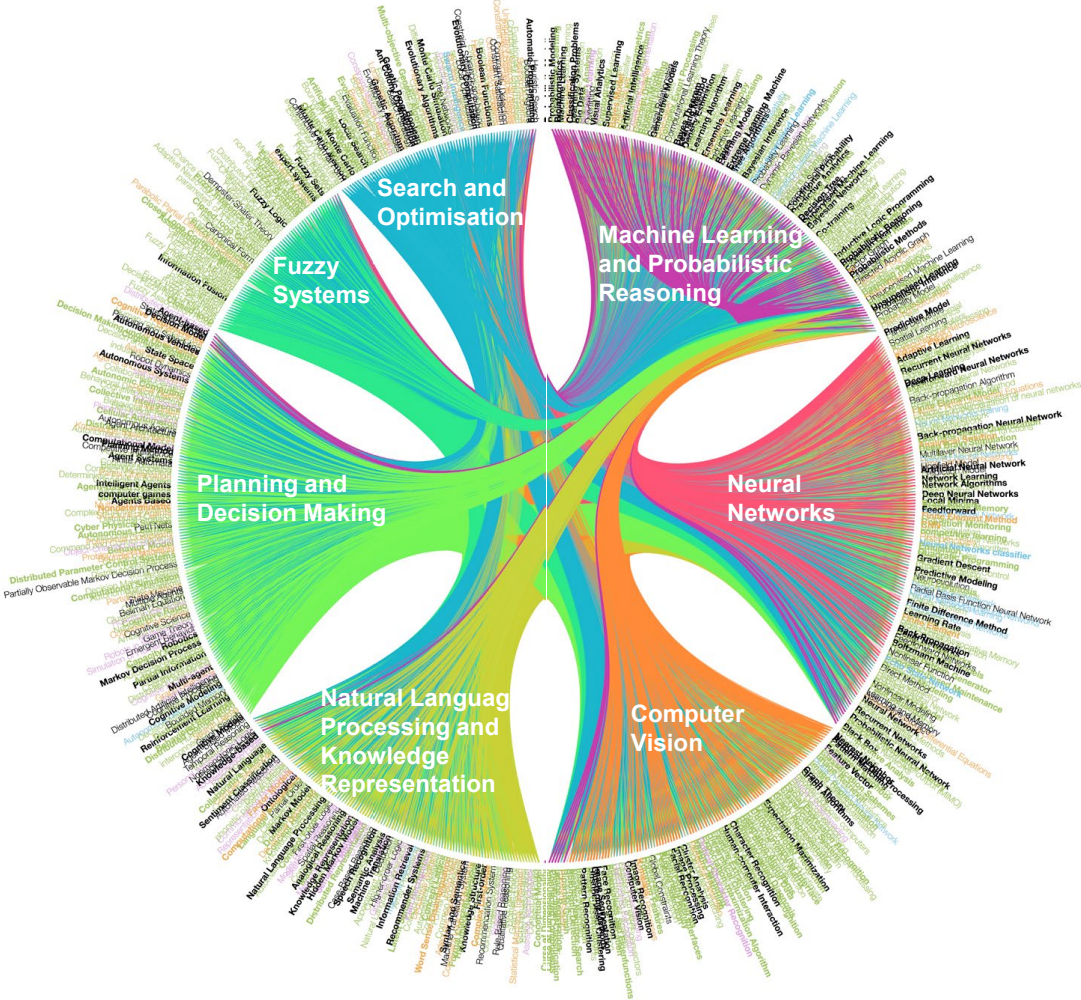
# Artificial Intelligence: How knowledge is created, transferred, and used

Trends in China, Europe, and the United States

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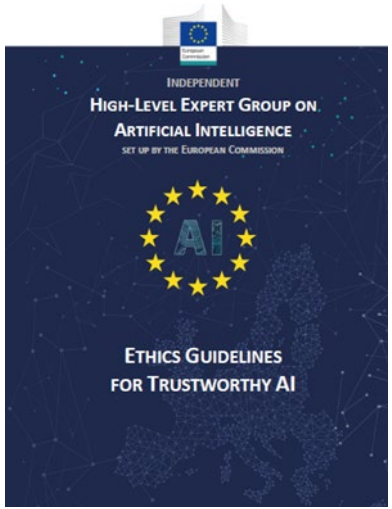
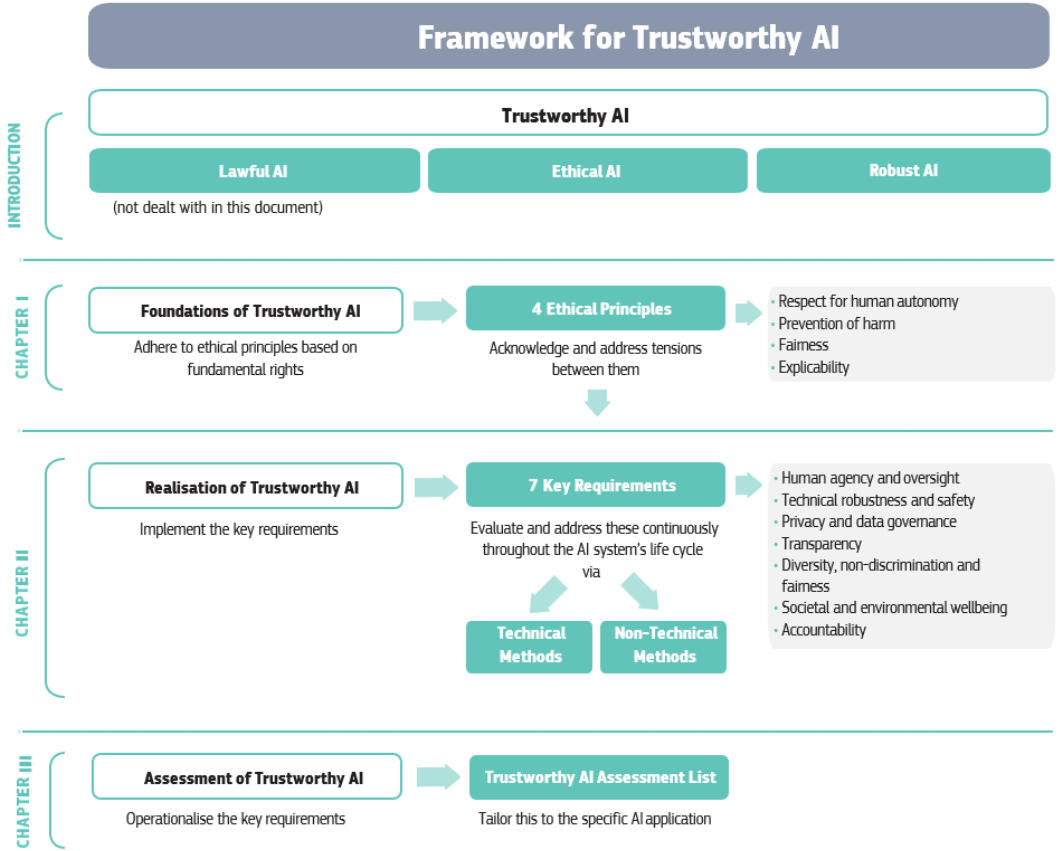
# Current approaches: HLEG




**Fundamental rights**

- Respect for human dignity
- Freedom of the individual
- Equality, non-discrimination and solidarity
- Citizens' rights.

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# Current approaches: HLEG 7 requirements

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# Current approaches: OECD

Values-based principles

- inclusive growth, sustainable development and well-being;
- human-centred values and fairness;
- transparency and explainability;
- robustness, security and safety;
- and accountability.

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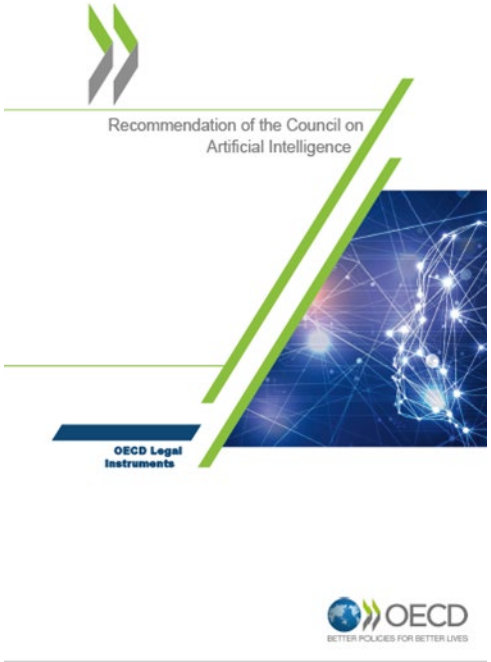
# Current approaches: OECD




Recommendations to policymakers

- investing in AI research and development;
- fostering a digital ecosystem for AI;
- shaping an enabling policy environment for AI;
- building human capacity and preparing for labour market transformation;
- and international co-operation for trustworthy AI.

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# Convergence of recent guidelines

| | IEEE | HLEG | OECD | SIENNA/SHERPA |
|---|---|---|---|---|
| | | | | |
| **autonomy** | ** | **** | *** | **** |
| **freedom** | *** | *** | *** | *** |
| **dignity** | *** | *** | *** | *** |
| **privacy** | **** | **** | *** | **** |
| **safety/security** | ** | **** | **** | **** |
| **justice/fairness** | ** | **** | **** | **** |
| **accountability** | **** | **** | **** | **** |
| **transparency** | **** | **** | **** | **** |
| **indiv. well-being** | **** | ** | **** | *** |
| **soc/env well-b.** | *** | **** | *** | *** |

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# Human rights

| Rights | ECHR | EUCFR |
|---|---|---|
| Right to human dignity | | Article 1 |
| Right to liberty and security | Article 5 | Article 6 |
| Right to respect for private and family life | Article 8 | Article 7 |
| Protection of personal data | | Article 8 |
| Freedom of thought, conscience and religion | Article 9 | Article 10 |
| Prohibition of discrimination | Article 14; Article 1, Protocol 12 | Article 21 |
| Right of property | Article 1, Protocol 1 | Article 17 |
| Right to education | Article 1, Protocol 2 | Article 14 |
| Right to free election | Article 3, Protocol 1 | Articles 39-40 |
| Freedom to choose an occupation and right to engage in work | | Article 15 |
| Consumer protection | | Article 38 |
| Right to good administration | | Article 41 |

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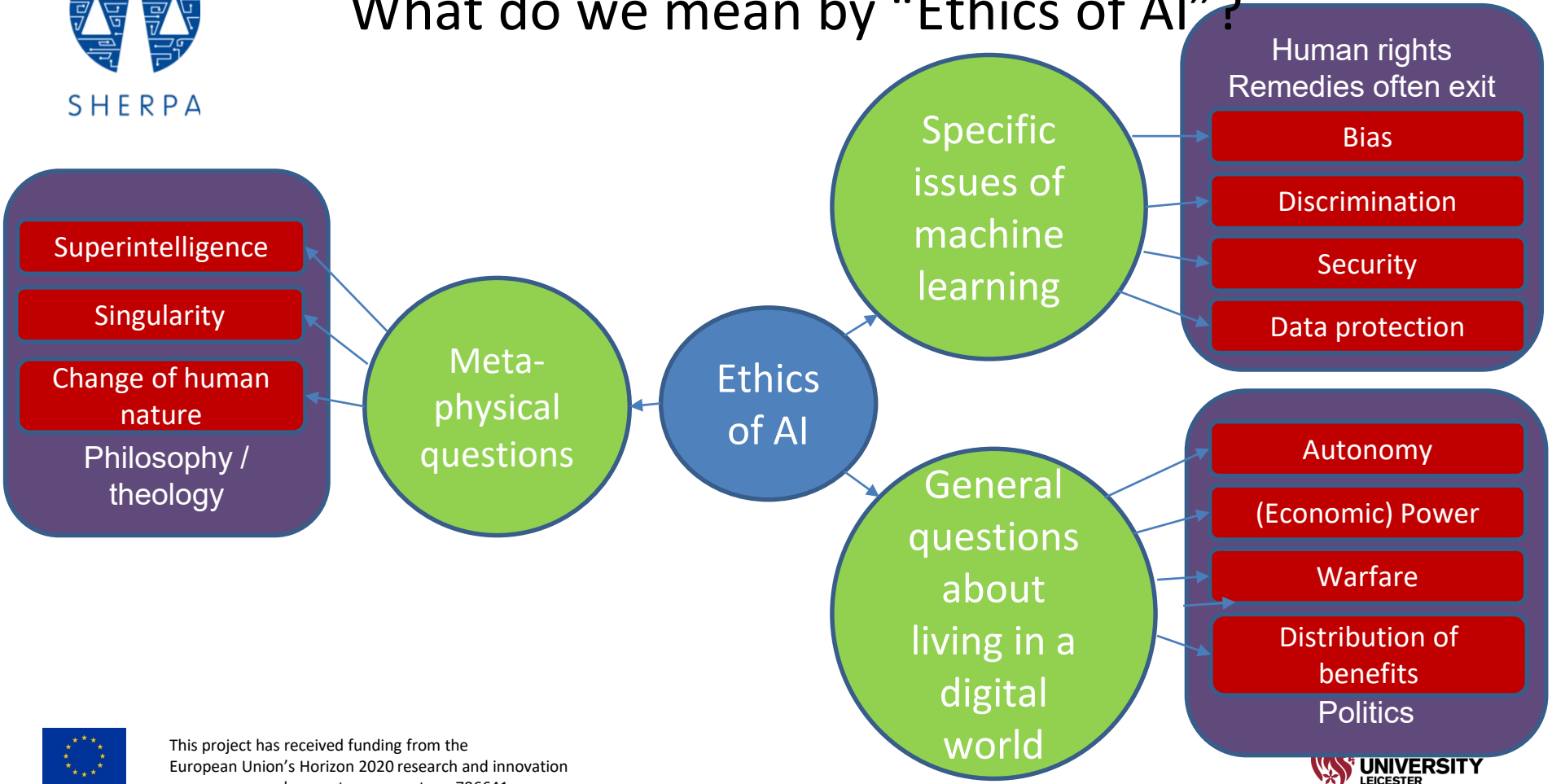
# What do we mean by “Ethics of AI”?

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# Existing remedies for specific issues

- Risk management (Clarke)
- Information governance (ISO)
- Development methodologies (e.g. value-sensitive design)
- ICT professionalism, including guidelines
- Product liability (something ICT companies are not used to)
- Data Protection law
- Competition law
- Human rights law

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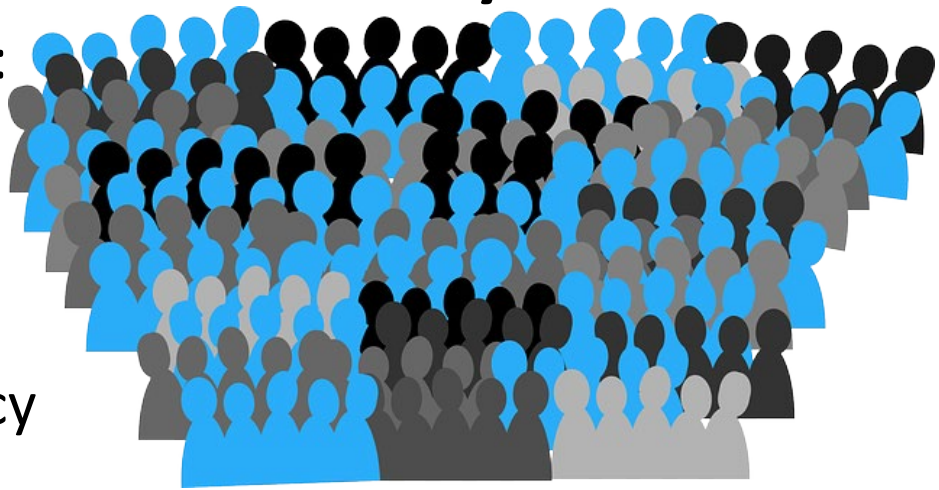
# General questions about a digital society

- Human rights in business:
  - CSR;
  - OECD guidelines
- Public engagement
- Representative democracy
- How to deal with the international nature of technology?



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# Some Observations

- Pervasive technocentric and techno-optimistic view
- What is new, what is specific to AI?
  - Lack of conceptual clarity
  - AI is part of computer science
  - What happened to computer ethics, info ethics, ethics of technology?
- What is the role of ethics, ethical principles?

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# So What?

- Look beyond the hype
  - What is really new?
  - Which issues can be addressed with existing measures?
- Clarify the role of ethics
  - Ethics / rights / laws
  - Gaps in the law (policy vacuum)
  - Interpretation of the law
- Larger scale / social issues
  - Don’t look at AI or big data in isolation
- Is technical innovation subject to democratic oversight?

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# Get involved

Join the Stakeholder Network

- https://www.project-sherpa.eu/

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