Intellectual Capital
for Communities
In the Knowledge
Economy

When AI , Big Data and Ethics converge -

Ethics, Human Rights and AI Governance

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

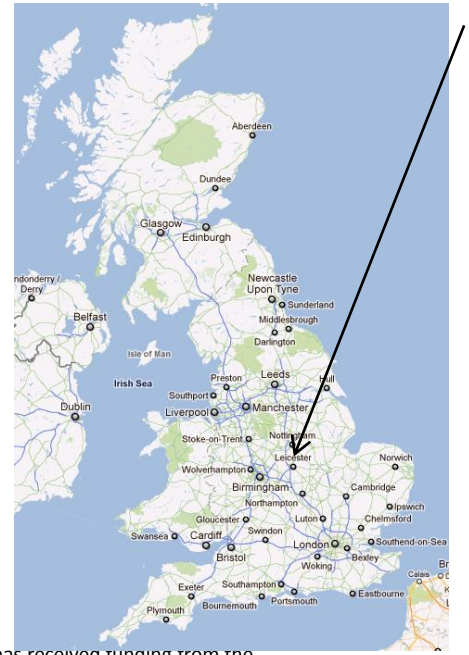
SHERPA

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

Intellectual Capital for Communities In the Knowledge Economy

The Centre for Computing and Social Responsibility



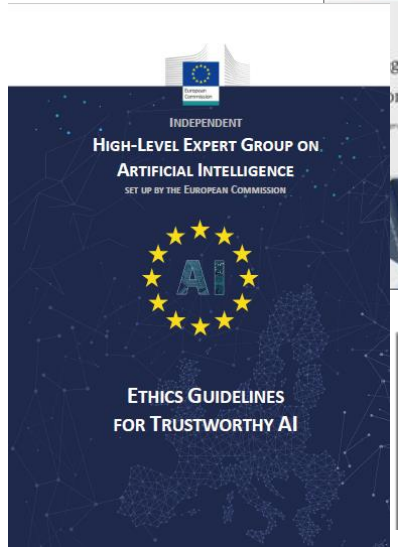
De Montfort University, Leicester, UK

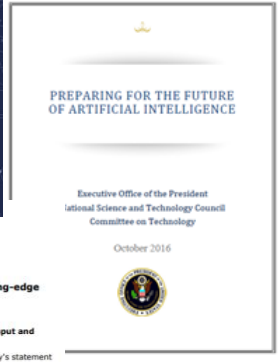
Overview:

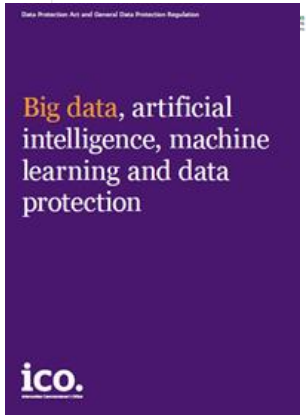
- Established 1996
- Members
    - 20 research active members
    - 15+ visiting Profs und Research Associates
- ETHICOMP conference series
- Journal of Information, Ethics and Communication in Society, ORBIT journal
- ~6 live projects, EU, EPSRC, ESRC

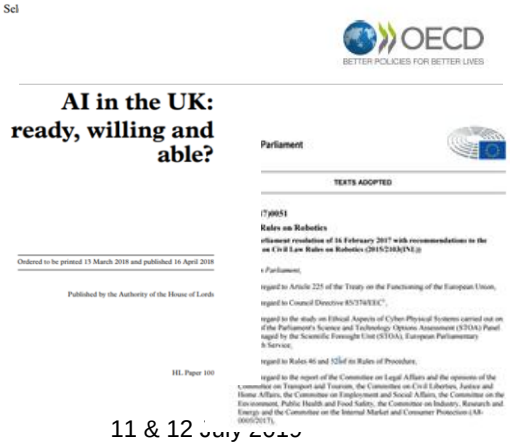
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 786641

What can I say that is novel?





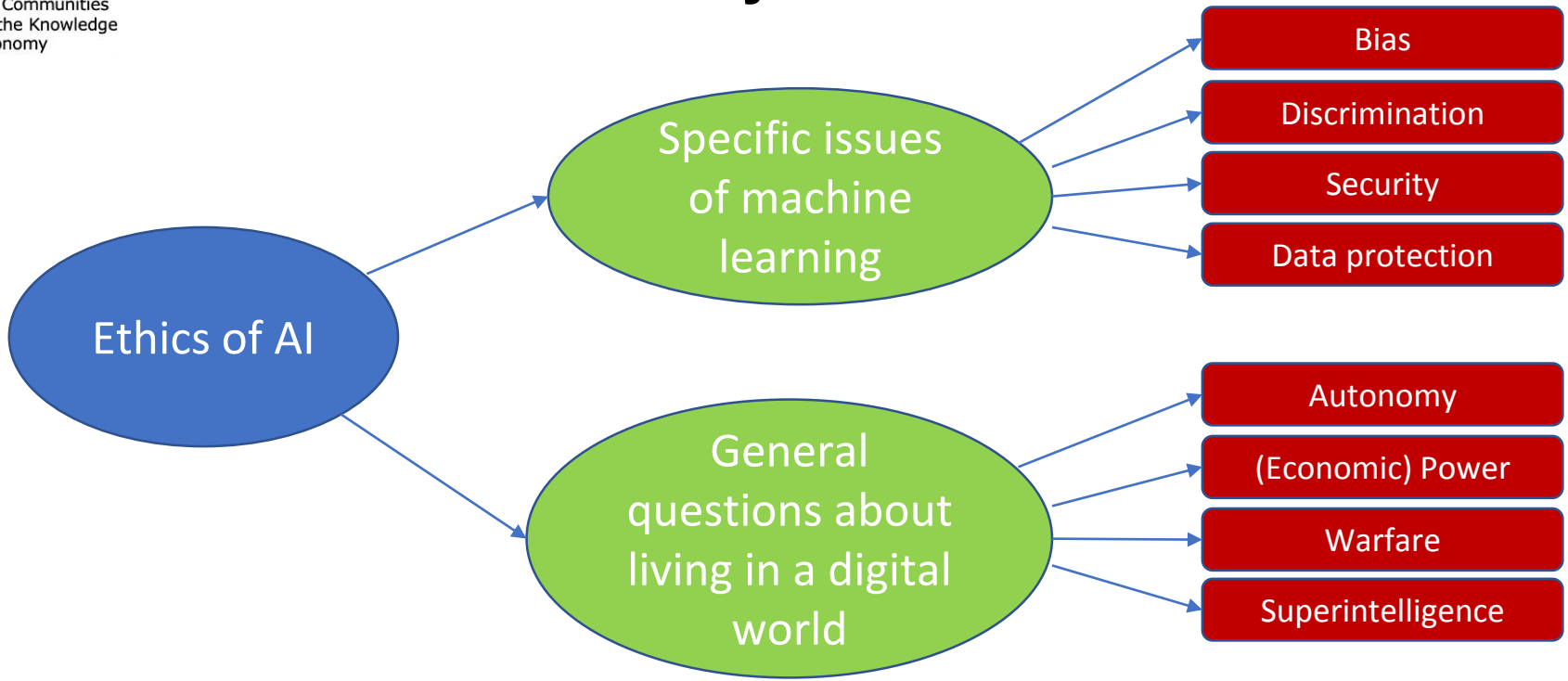




rom the
search and
nt agreement no.

Intellectual Capital for Communities In the Knowledge Economy

What do we mean by “Ethics of AI”?



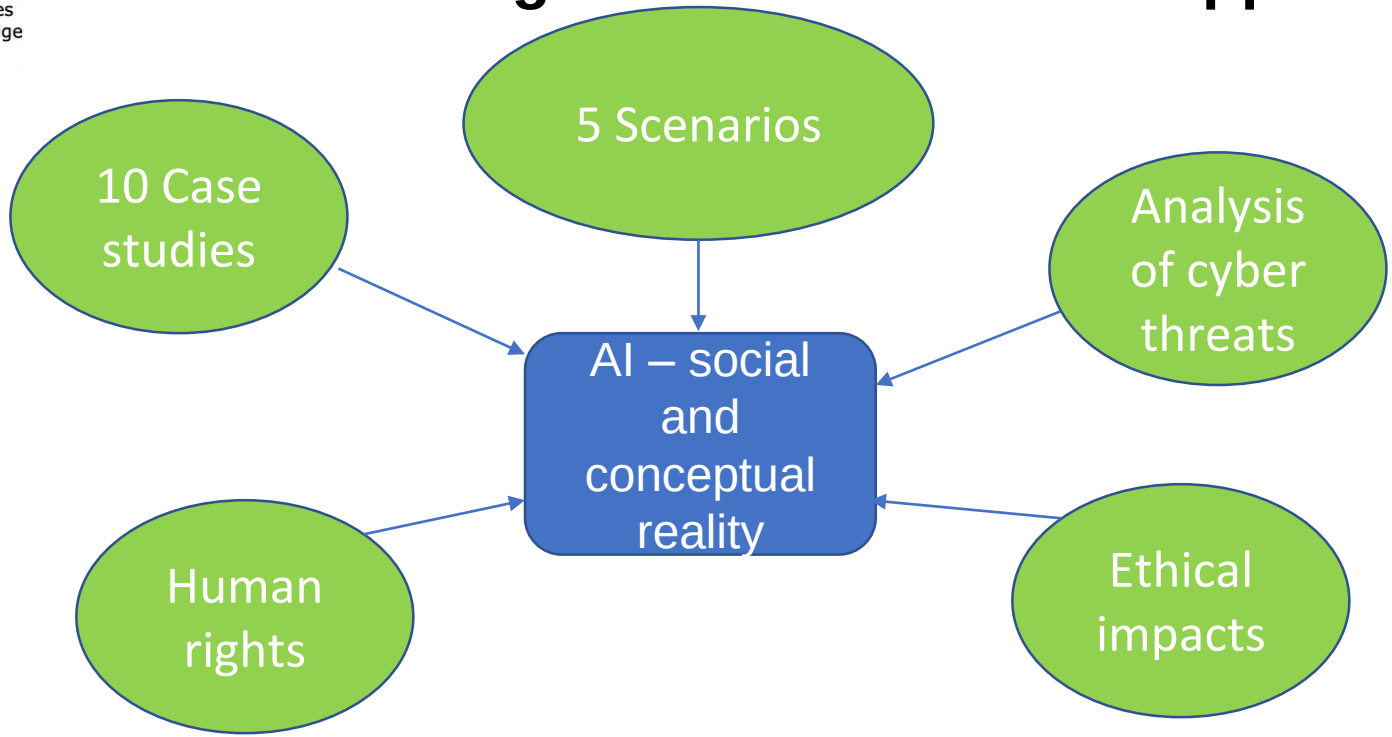
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement no. 786641

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

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

Understanding AI – A Multimethod Approach



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

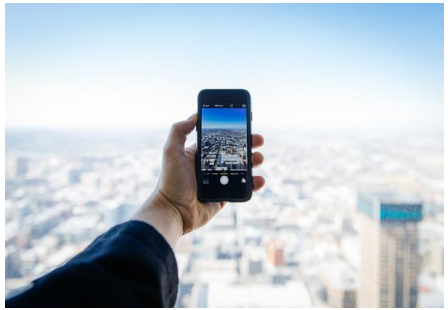
Case Studies

Intellectual Capital for Communities In the Knowledge Economy

IoT

Government

Agriculture



Sustainability - Smart Cities

Science

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

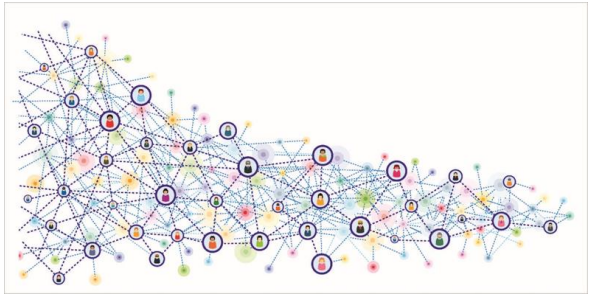
Case Studies

Intellectual Capital for Communities In the Knowledge Economy

Insurance

Energy and Utilities

Communication, Media



Retail and Trade

Manufacturing

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

Scenarios

Predictive Policing

Warfare

Mimicking Technologies

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

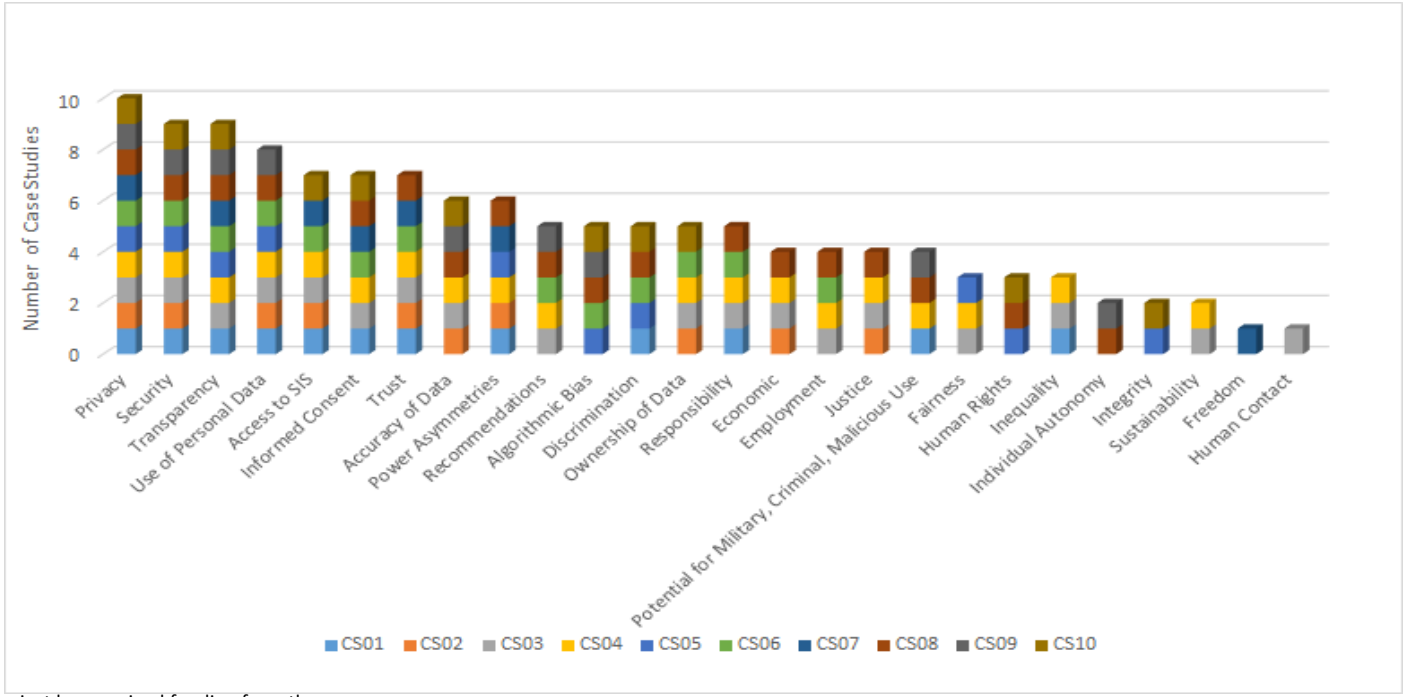
Education

Self-Driving Cars

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

Intellectual Capital for Communities In the Knowledge Economy

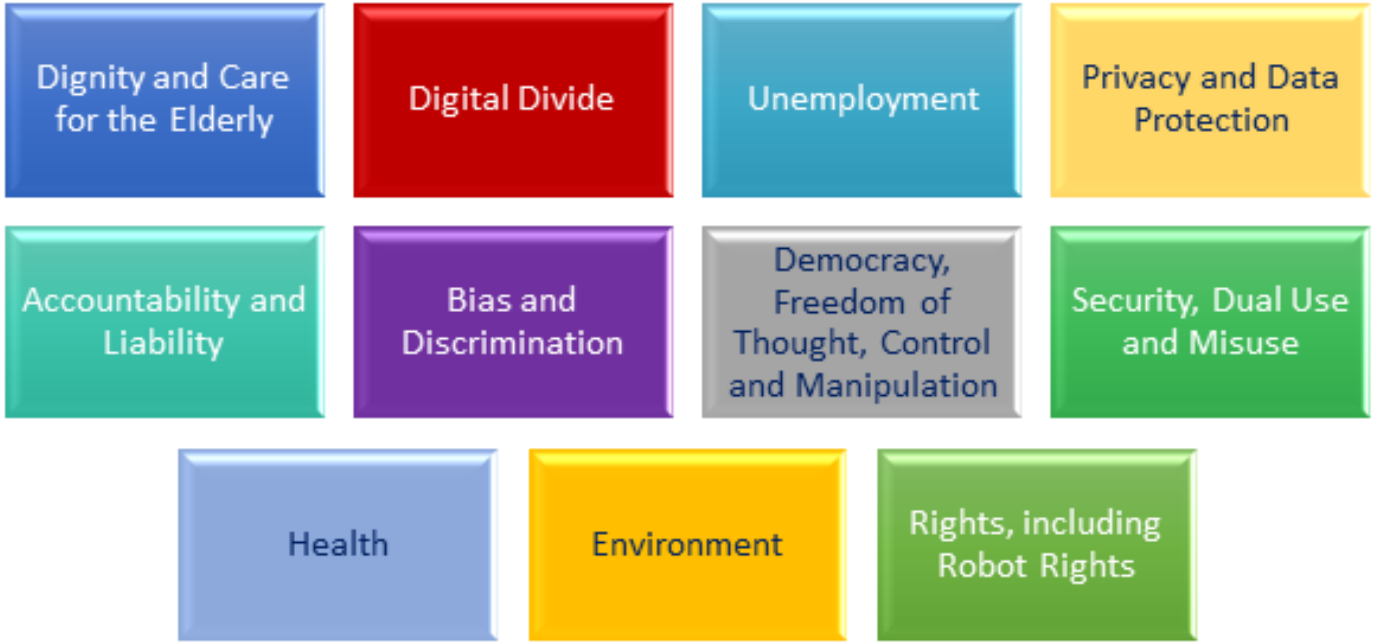
Prevalence of Ethical Issues in the Case Studies



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

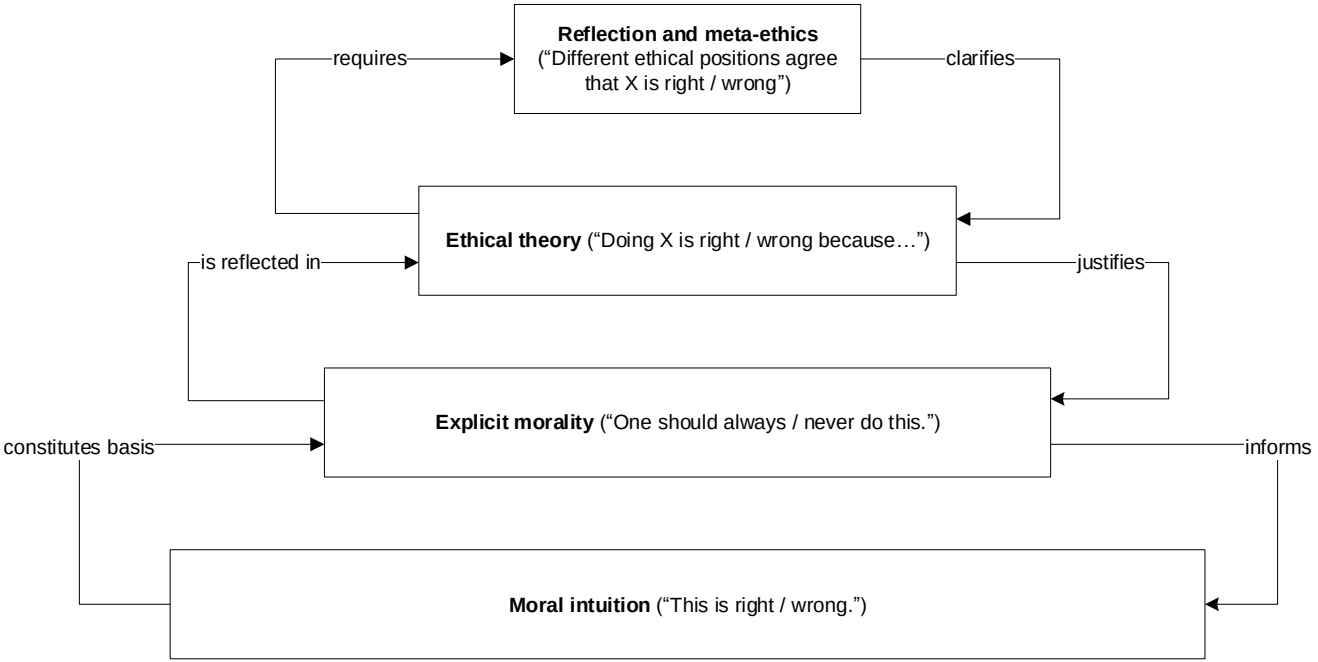
Intellectual Capital for Communities In the Knowledge Economy

Human Rights Analysis



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

Concepts of Ethics

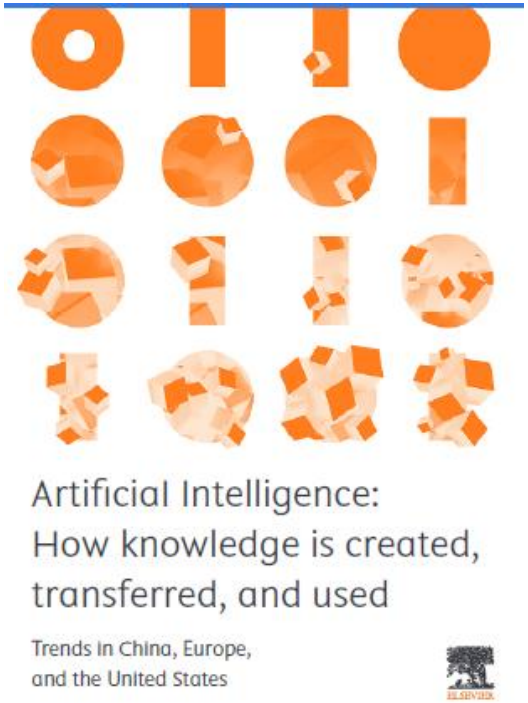


Stahl, B. (2012). Morality, Ethics, and Reflection: A Categorization of Normative IS Research. Journal of the Association for Information Systems, 13(8). Retrieved from http://aisel.aisnet.org/jais/vol13/iss8/1

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

AI definition

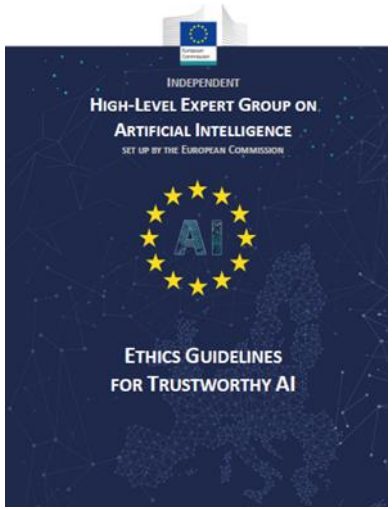
- EU AI Communication (April 2018)
  - ‘Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions - with some degree of autonomy - to achieve specific goals’ #
- “As soon as it works, no one calls it AI anymore …” (Meyer, McCarthy,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

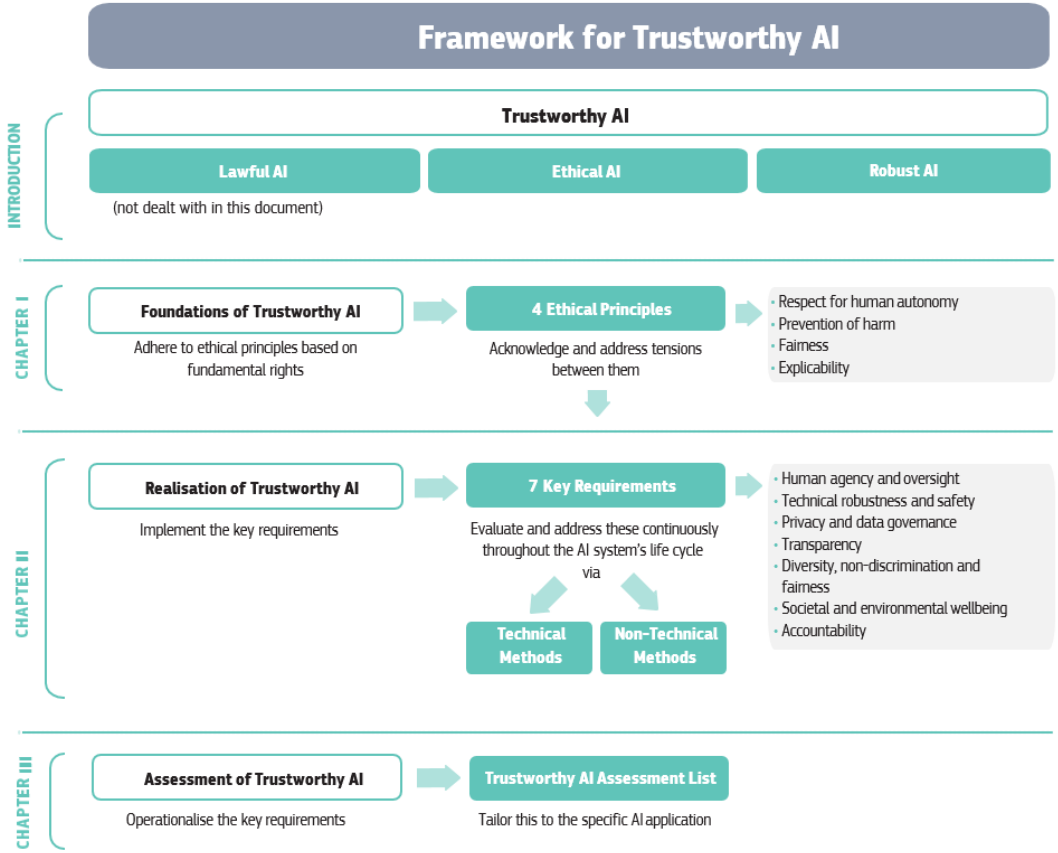


This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement no. 786641

Current approaches: HLEG

Intellectual Capital for Communities In the Knowledge Economy





Fundamental rights

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

This project has received fundi
European Union's Horizon 202
innovation programme under
786641

Current approaches: HLEG 7 requirements

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

Current approaches: OECD

OECD
BETTER POLICIES FOR BETTER LIVES

Values-based principles

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

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

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.

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

Intellectual Capital for Communities In the Knowledge Economy

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?

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

Intellectual Capital for Communities In the Knowledge Economy

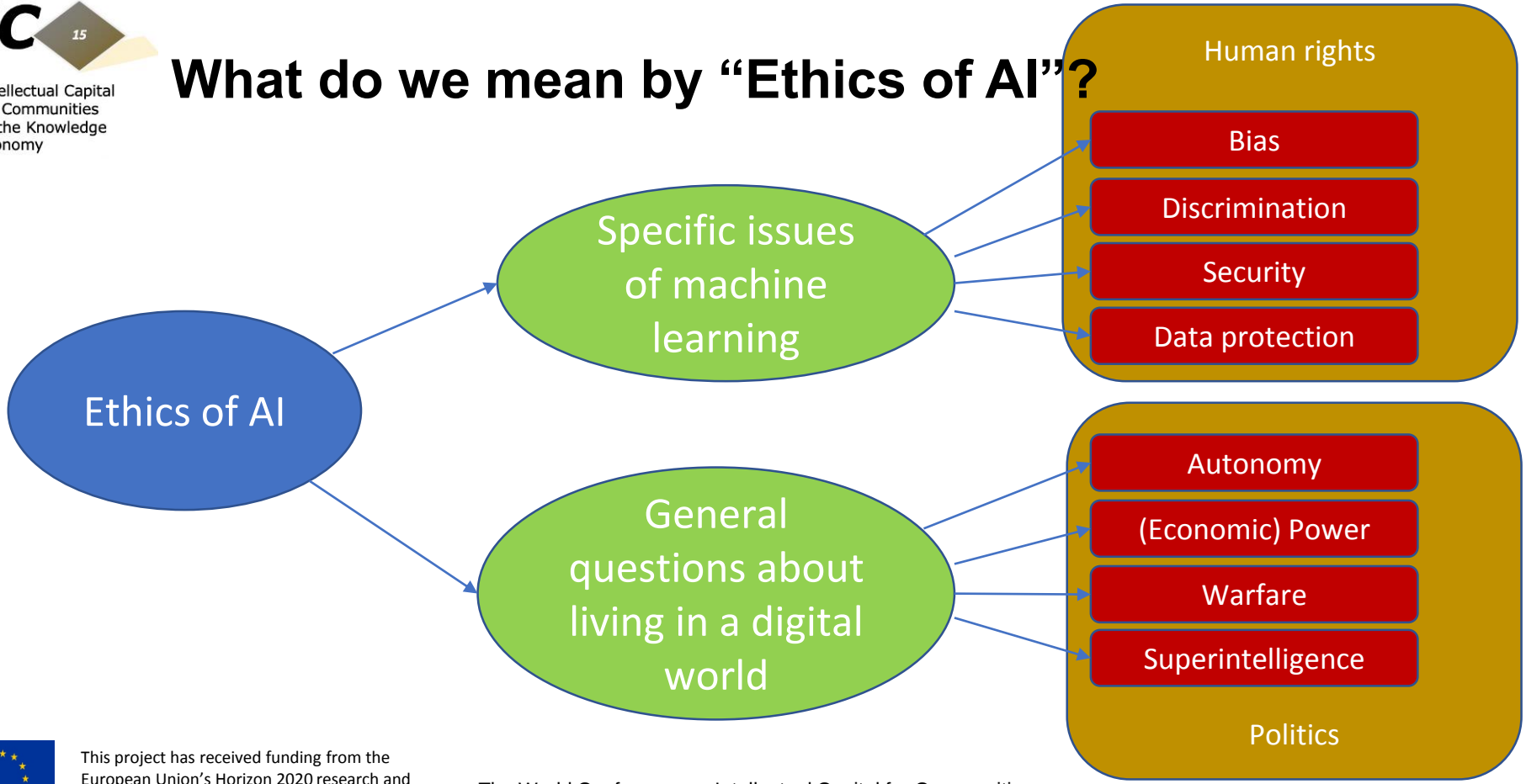
Specific issues of machine learning

Rights	ECHR	EUCFR
Right to human dignity		Article 1
Right to the integrity of the person		Article 3
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
Freedom of expression and information	Article 10	Article 11
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 of movement	Article 2, Protocol 4	Article 45
Freedom to choose an occupation and right to engage in work		Article 15
Freedom to conduct a business		Article 16
Rights of the child		Article 24
Rights of the elderly		Article 25
Integration of persons with disabilities		
Right to health care		Article 35
Consumer protection		Article 38
Right to good administration		Article 41
Right of access to documents		Article 42
Freedom of movement and residence		Article 45

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

Intellectual Capital for Communities In the Knowledge Economy

What do we mean by “Ethics of AI”?



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

Intellectual Capital for Communities In the Knowledge Economy

Existing remedies for specific issues

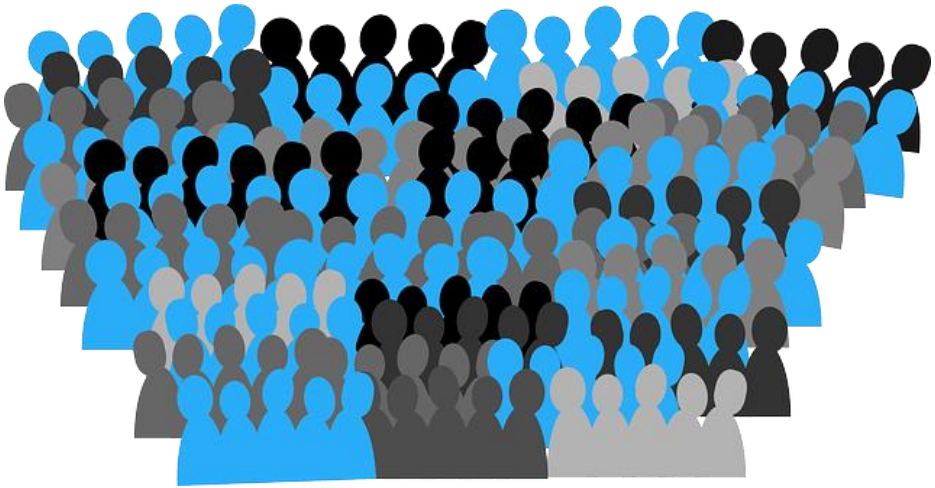
- Risk management (Clarke)
- Information governance (ISO)
- Development methodologies (e.g. value-sensitive design)
- ICT professionalism, including guidelines
- Product liability (something ICT companies are not used to)
- Data Protection law
- Competition law
- Human rights law

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

Intellectual Capital for Communities In the Knowledge Economy

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?



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

Intellectual Capital for Communities In the Knowledge Economy

Next steps

- Look beyond the hype
  - What is really new?
  - Which issues can be addressed with existing measures?
- Clarify the role of ethics
- Don’t look at AI or big data in isolation
- Is technical innovation subject to democratic oversight?

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

Intellectual Capital
for Communities
In the Knowledge
Economy

Are You Interested?

- Check our website: www.project-sherpa.eu
- Sign up and stay in contact
- Join the stakeholder network
- Spread the word

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

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