Ethical Considerations in Artificial Intelligence and Autonomous Systems

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IEEE Standards Association

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History

- Why / When the IEEE Global Initiative was Created
  - To move beyond both the fear and the uncritical admiration regarding autonomous and intelligent technologies
  - To show that aligning technology with ethical values will help advance innovation with these new tools while diminishing fear in the process
  - Discussions / Ad Hoc Work begun in late 2015
  - Public launch April 2016

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Mandate & Mission

- Create “Ethically-aligned” autonomous and intelligent systems:
  - Incorporate ethical aspects of human wellbeing that may not automatically be considered in the current design and manufacture of AIS technologies
  - To reframe the notion of success so human progress can include the intentional prioritization of individual, community, and societal ethical values
- To ensure every technologist is educated, trained, and empowered to prioritize ethical considerations in the design and development of autonomous and intelligent systems

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The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

An incubation space for new standards and solutions, certifications and codes of conduct, and consensus building for ethical implementation of intelligent technologies

INDUSTRY CONNECTIONS

The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

ICAID

Download the IEEE Global Initiative *Ethically Aligned Design* document

Download the IEEE Global Initiative brochure

NEWS AND EVENTS

ABOUT

The purpose of this Initiative is to ensure every technologist is educated, trained, and empowered to prioritize ethical considerations in the design and development of autonomous and intelligent systems.

- View specifics regarding the Mission and deliverables for the Initiative.
- See a list of The Initiative's Executive and other Committees.
- Learn more from Frequently Asked Questions.

Ethically Aligned Design, Version 1 - Request For Input

Ethically Aligned Design: A Vision for Prioritizing Human Wellbeing with Artificial Intelligence and Autonomous Systems represents the collective input of over one hundred global thought leaders from academia, science, government and corporate sectors in the fields of Artificial Intelligence, ethics, philosophy, and policy.

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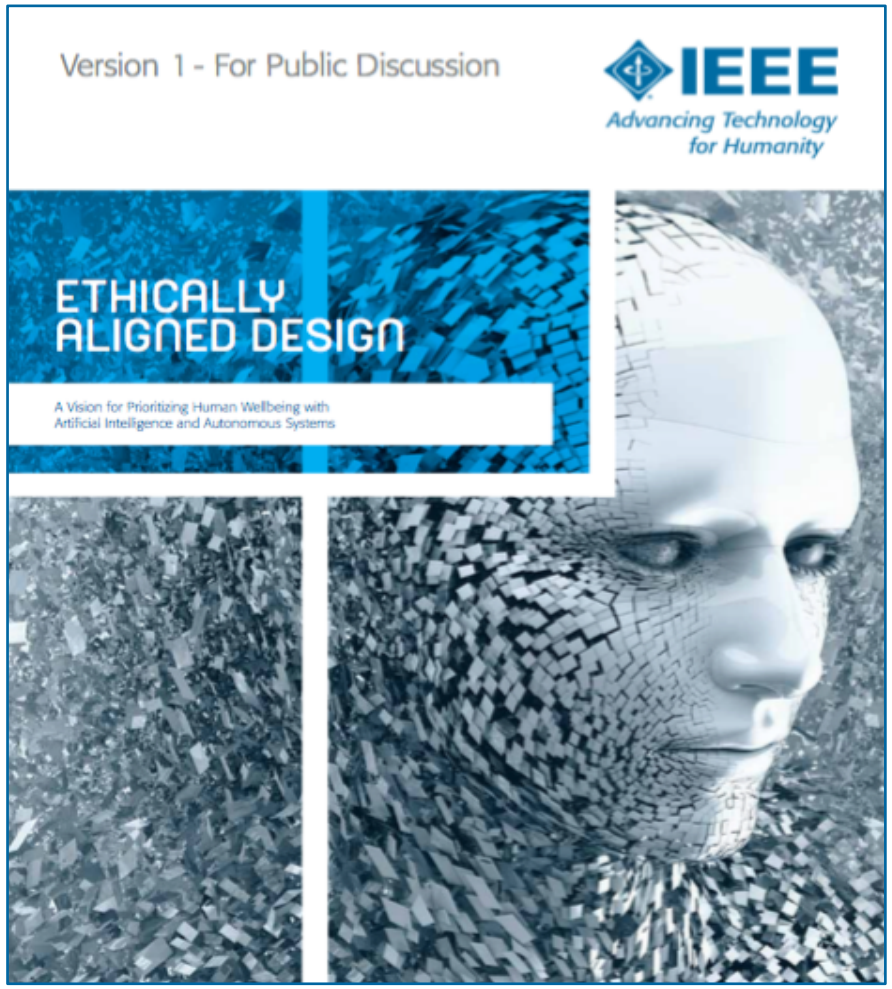
Ethically Aligned Design

A Vision for Prioritizing Human Wellbeing with Artificial Intelligence and Autonomous Systems



The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

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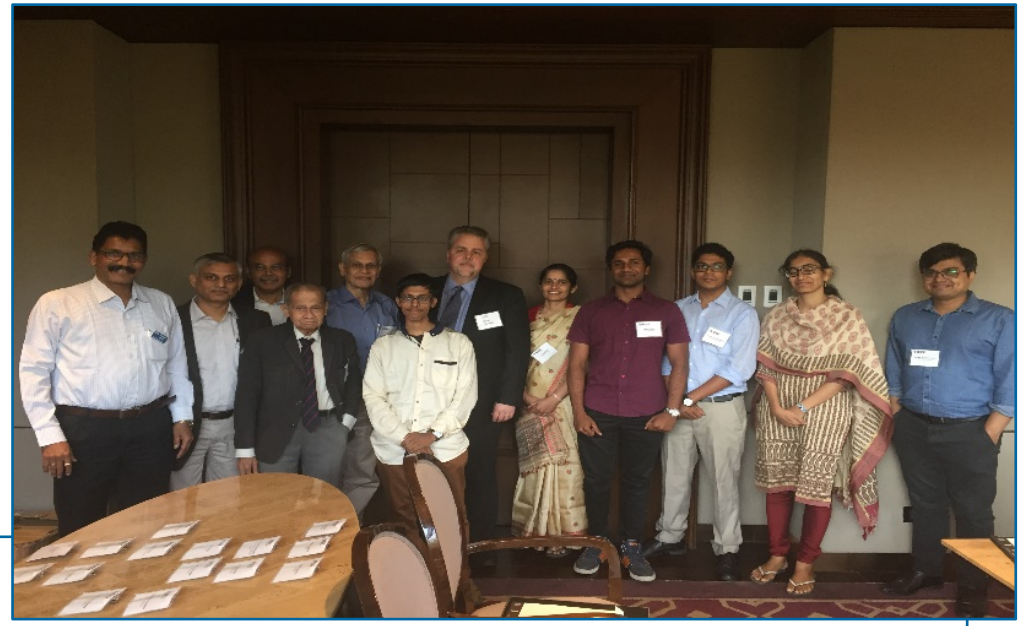
Workshops Around the World: Mumbai, London/Cambridge, Japan, China



また、これらの技術が我々の道徳的価値観や倫理原則の面で人間と調和するよう、確実を期さねばならない。そしてAI／ASは、機能的な目標を達成して技術的な課題に取り組むだけでなく、人々にとって有益となるようにふるまう必要がある。これにより、日常生活におけるAI／ASの有意義な普及に必要な、人間とテクノロジーの間の高いレベルの信頼を構築することが可能になる。

アリストテレスが明らかにした「エウダイモニア」とは、人間の幸福を社会にとって最高の美徳と定義する姿勢である。おおまかに「繁栄」と翻訳されているエウダイモニアの恩恵は、我々が望む生き方を決定するのに倫理的配慮が役立つ、意識的な熟考から生まれるのである。

AI／ASの創造をその利用者と社会の価値観に沿ったものにすることにより、人間の幸福の増幅を、アルゴリズム時代における進歩の指標として優先させることが可能になる。

《以伦理为基准的设计》

--在人工智能及自主系统中将人类福祉摆在优先地位的愿景（第一版）

为了从人工智能及自主系统（AI/AS）的潜力中充分获益，我们需要超越臆想，不局限于只是寻找更多计算的能力或解决问题的能力。我们需要确保这些技术与人类在道德价值观和伦理原则方面保持一致。人工智能及自主系统远不止于是实现功能性的目标和解决技术问题，而必须以一种造福于人们的方式行事，才能使人类与技术之间达成崇高的信任，让人工智能及自主系统能够在日常生活中被人们建设性地普遍使用。

正如亚里士多德所阐述的"幸福（Eudaimonia）"，它是一种将人类福祉定义为社会最高美德的实

的思考有助于定义我们希望怎样生活。

保持一致，我们优先将人类福祉的增

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US: South By Southwest (SXSW), Silicon Valley

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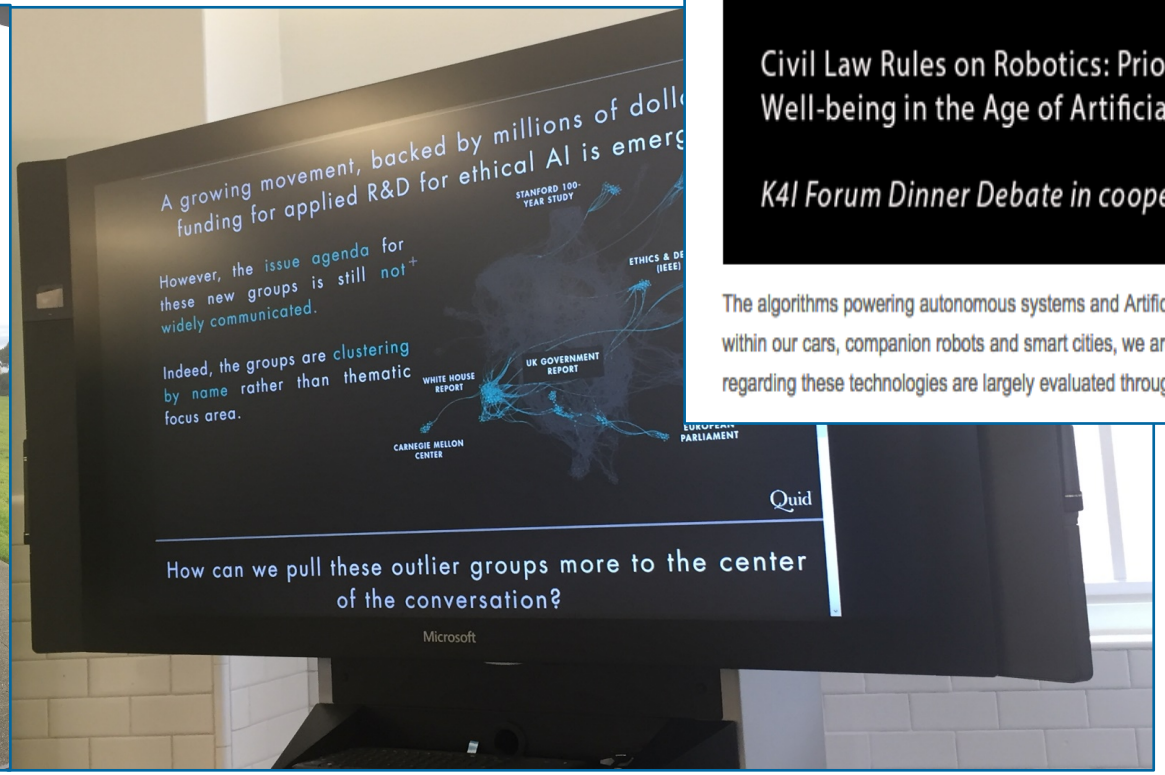
World Economic Forum & European Parliament Workshops



Civil Law Rules on Robotics: Prioritizing Human Well-being in the Age of Artificial Intelligence

K4I Forum Dinner Debate in cooperation with IEEE

Abstract:

The algorithms powering autonomous systems and Artificial Intelligence are driving the future of society. Imbued within our cars, companion robots and smart cities, we are becoming a culture of code. The risks and benefits regarding these technologies are largely evaluated through the lens of GDP-focused, exponential growth.

Time:

Tuesday, 11 April, 2017 -
19:30 to 22:00

Venue:

Members' Salon, European Parliament, Brussels

Host:

Mady Delvaux,
Member of the European Parliament (MEP)

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UN/ITU and XPrize

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Current State

- Currently more than 200 AI / Ethics experts involved from the US, EU, Australia, India, China, Korea, and Japan
- 13 Committees creating content plus multiple supporting sub-committees
- Version 2, will feature thirteen sections created by over two hundred-fifty global thought leaders and launch in late 201
- Seven approved Standards Working Groups so far

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IEEE-SA Standards Projects Underway

- **IEEE P7000**: Model Process for Addressing Ethical Concerns During System Design
- **IEEE P7001**: Transparency of Autonomous Systems
- **IEEE P7002**: Data Privacy Process
- **IEEE P7003**: Algorithmic Bias Considerations
- **IEEE P7004**: Standard on Child and Student Data Governance
- **IEEE P7005**: Standard on Employer Data Governance
- **IEEE P7006**: Standard on Personal Data AI Agent Working Group

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Questions for Consideration

- How to participate?
  - Individuals can join the open Initiative committees/standards working groups contact Initiate Executive Director
  - SDOs interested in working cooperatively on these issues at the institutional level contact IEEE Standards Association Senior Director
  - Look for and provide feedback on next whitepaper
  - Start talking about ethics of algorithms, AI and its implications in your work.

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Thank you!

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Ethically Aligned Design, v1 Report:
http://standards.ieee.org/develop/indconn/ec/autonomous_systems.html

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