Ethical Considerations in Artificial Intelligence and Autonomous Systems

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IEEE Standards Association
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
Mandate & Mission

- Create “Ethically-aligned” autonomous and intelligent systems:
  - Incorporate ethical aspects of human well-being 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
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 specific 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.
Ethically Aligned Design

A Vision for Prioritizing Human Wellbeing with Artificial Intelligence and Autonomous Systems
Workshops Around the World: Mumbai, London/Cambridge, Japan, China

《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置于优先位置的愿景（第一版）

为了从人工智能及自主系统（AI/AS）的潜力中充分受益，我们需要超越憧憬，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实现功能性的目标和解决技术问题，而必须以一种逐渐于人们的方式行事，才能使人类与技术之间达成更高的信任，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现。这种思考有助于定义我们希望怎样生活。如果人工智能及自主系统利用好这个现实，我们优先将人类福祉的增
US: South By Southwest (SXSW), Silicon Valley
Civil Law Rules on Robotics: Prioritizing Human Well-being in the Age of Artificial Intelligence

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

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 codes. The risks and benefits regarding these technologies are largely evaluated through the lens of GDP-focused, exponential growth.
UN/ITU and XPrize
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 2021
- Seven approved Standards Working Groups so far
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
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.
Thank you!

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

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

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