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THE ROLE OF ETHICALLY ALIGNED DESIGN FOR BUSINESS

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IEEE Standards Association

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AVAILABLE NOW AT: ETHICSINACTION.IEEE.ORG

Committee members from IBM, Google, Salesforce, Intel and others providing insights on leadership regarding AI Ethics:

- THE VALUE AND NECESSITY OF AI ETHICS
- CREATING A SUSTAINABLE CULTURE OF AI ETHICS
- AI ETHICS SKILLS AND HIRING
- AI ETHICS READINESS FRAMEWORK

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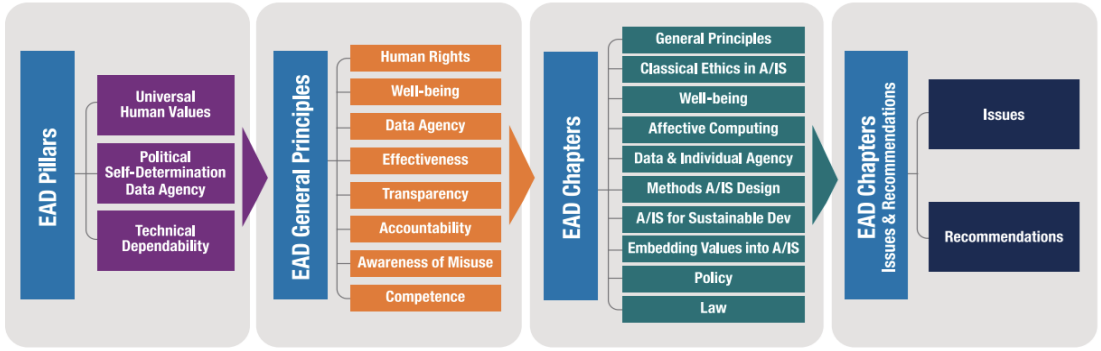
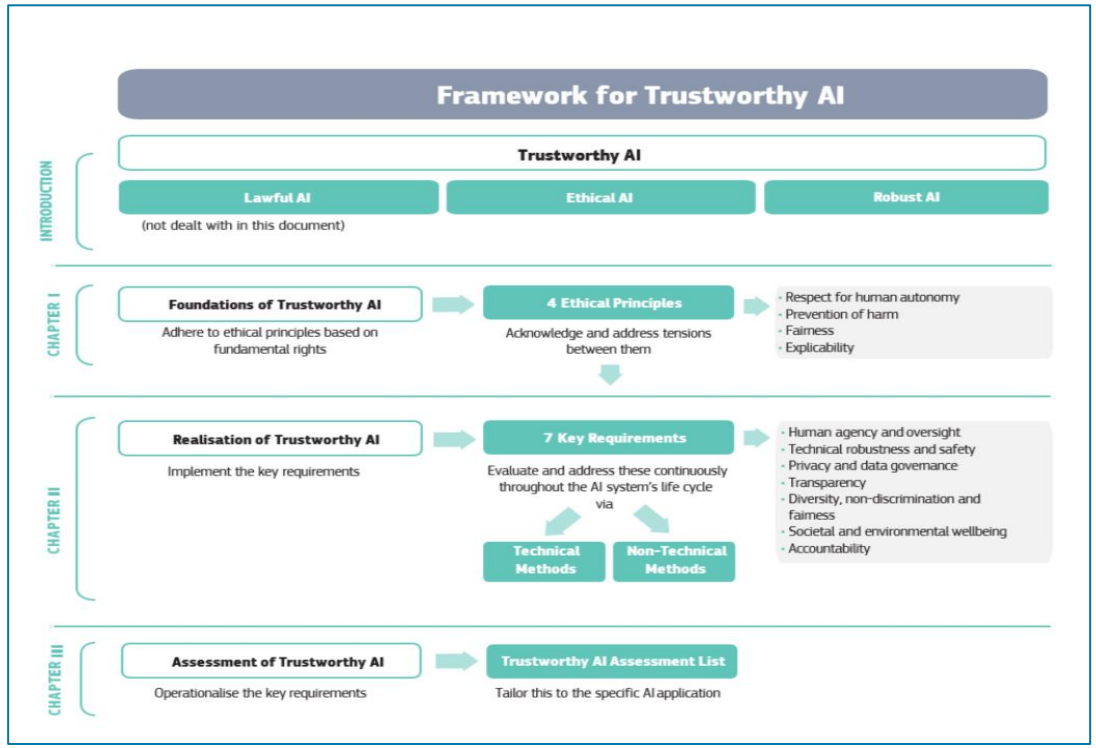
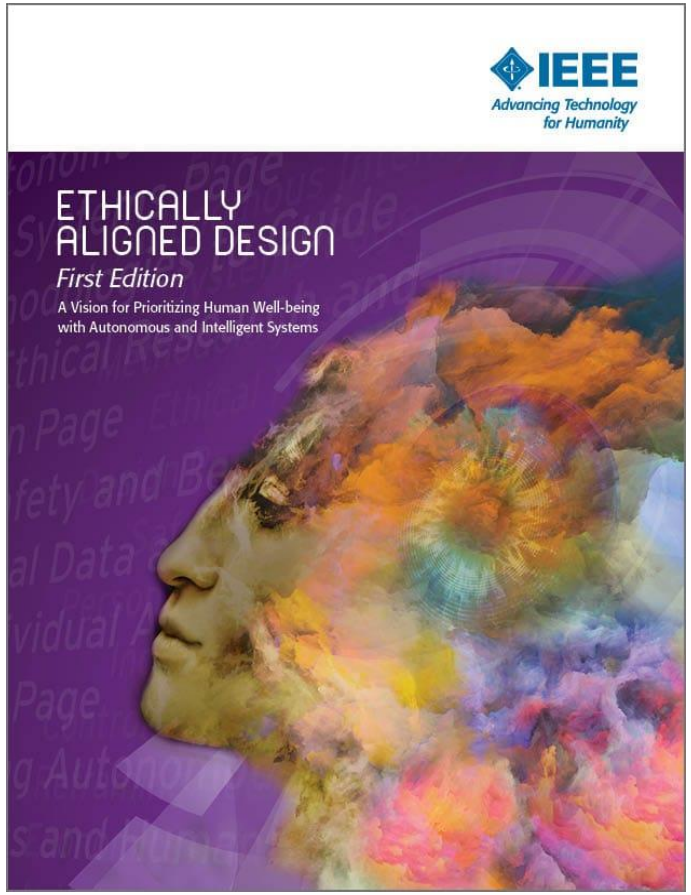
Ethically Aligned Design Conceptual Framework—From Principles to Practice





AI DESIGN & GOVERNANCE



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THE VALUE AND NECESSITY OF AI ETHICS

When consumers' AI interactions result in ethical issues, it threatens both reputation and the bottom line: 41% said they would complain in case an AI interaction resulted in ethical issues, 36% would demand an explanation and 34% would stop interacting with the company.

Why addressing ethical questions in AI will benefit organizations: Capgemini Research Institute report surveying 1,580 executives from large organizations across ten countries and over 4,400 consumers across six countries (July, 2019)

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CREATING A SUSTAINABLE CULTURE OF AI ETHICS

- Create awareness of the need for AI ethics.
- Identify, recruit and train a core team.
- Modify existing design and development practices to include ethical AI considerations.
- Talk with the people you are building products for and with (participatory design) to avoid negative unintended consequences to encourage trust and transparency.
- Document your work and progress.
- Build structures to embed Ethically Aligned Design / AI ethics across the organization.

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AI ETHICS SKILLS AND HIRING

- According to Gartner Research, by 2023 over 75% of large organizations will hire specialists in AI behavior, forensics, privacy, and customer trust to reduce brand and reputation risk.
- AI ethics experts may have skills ranging in areas from anthropology, psychology, human rights, policy, philosophy, and/or design.
- It's when the ethics experts have working knowledge of machine learning and the ability to communicate potential outputs of AI that they bring the greatest benefit to their colleagues and companies.

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AI ETHICS READINESS FRAMEWORK

	Lagging	Basic	Advanced	Leading
Internal training, support, and people resources	• Employees on their own to find appropriate AI ethics resources • May be encouraged but no official support • More focused on compliance	• Workshops and certifications required for team members • Access to and support from evangelizers • Review board of experts	• Advisory boards • Key stakeholders and evangelizers for each product/solution • Employees add to existing processes for their specific use cases	• Ethical AI practices are embedded into decisions rather than inserted as modules • Infused into all roles and onboarding
Leadership buy-in	• Leadership recognizes but does not prioritize AI ethics	• Completed introductory level of training • Compliance focused knowledge	• Including AI ethics standards in new projects • AI ethics is included in collective agreements • Leadership is updated/ aware of team efforts	• Ethical practices and perspectives are infused into product strategy • Incentive strategy to reward ethical behavior and create consequences for unethical behavior • Leadership champions AI ethics efforts
Metrics and KPIs	• No clear qualitative metrics beyond generally speaking to any AI ethics principles	• Basic qualitative metrics are defined (human rights assessments, societal well-being indicators) • Some metrics implemented in user research process	• Metrics on user trust and understanding are further developed and maintained • Value is tied to health of product • Taxonomy of risks to prioritize mitigation • Differential privacy	• Sprints and goals to reach healthy levels of trust based on research • Constant user feedback for adjustments • Tied to revenue • Common vulnerabilities and exposures (CVE)
Organizational impact	• Does not overtly change organization, siloed effects	• Principles and accountability organization wide are tied to practices between teams	• Teams working closely with each other to improve processes • Understanding and accountability from top to bottom of organization • Creating and embracing a corporate culture of dialogue, discussion, and constructive critique	• Changes direction of products/relationship with users • Mindset change

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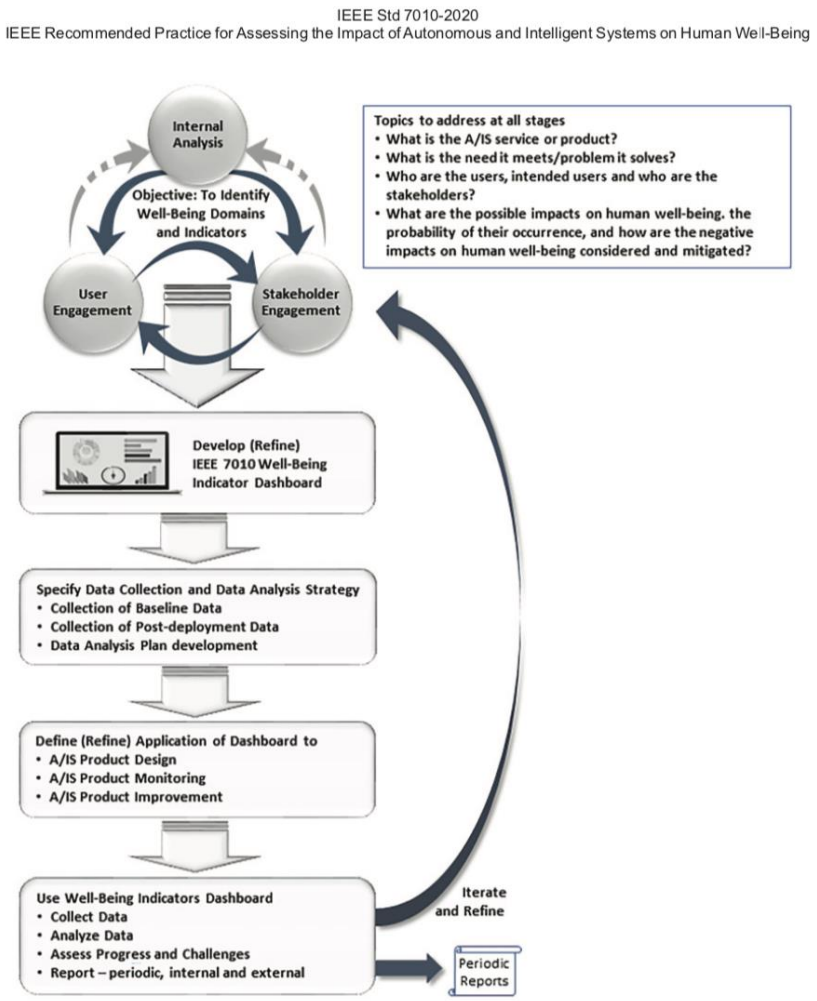
IEEE 7010-2020

IEEE 7010-2020: Societal Impact Assessment Framework



https://ieeexplore.ieee.org/document/9084219

7010-2020 - IEEE Recommended Practice for Assessing the Impact of Autonomous and Intelligent Systems on Human Well-Being

- 7010-2020 helps AI Systems creators and policymakers to ask the critical question: What are we optimizing our AI Systems to do as Key Performance Indicators of societal success?
- 7010 provides an Impact Assessment methodology at the outset of design requiring users to identify globally validated Indicators focusing on issues of human wellbeing and environmental sustainability in complement to existing financial and growth metrics which are often the only KPIs considered for AIS development and use.
- 7010 is designed to complement IEEE P7000 so Indicator identification and measure can be utilized in any application of systems engineering.
- Global Indicators like the OECD's Better Life Index or the UN SDGs provide data all AIS designers can use to more holistically consider issues of harm, risk, and innovation than when utilizing KPIs of exponential profit or growth in isolation.
- What we measure matters. For AIS to benefit all humans and society, it must take human wellbeing and environmental sustainability into full account in design, policy, and use to move beyond status quo "success."

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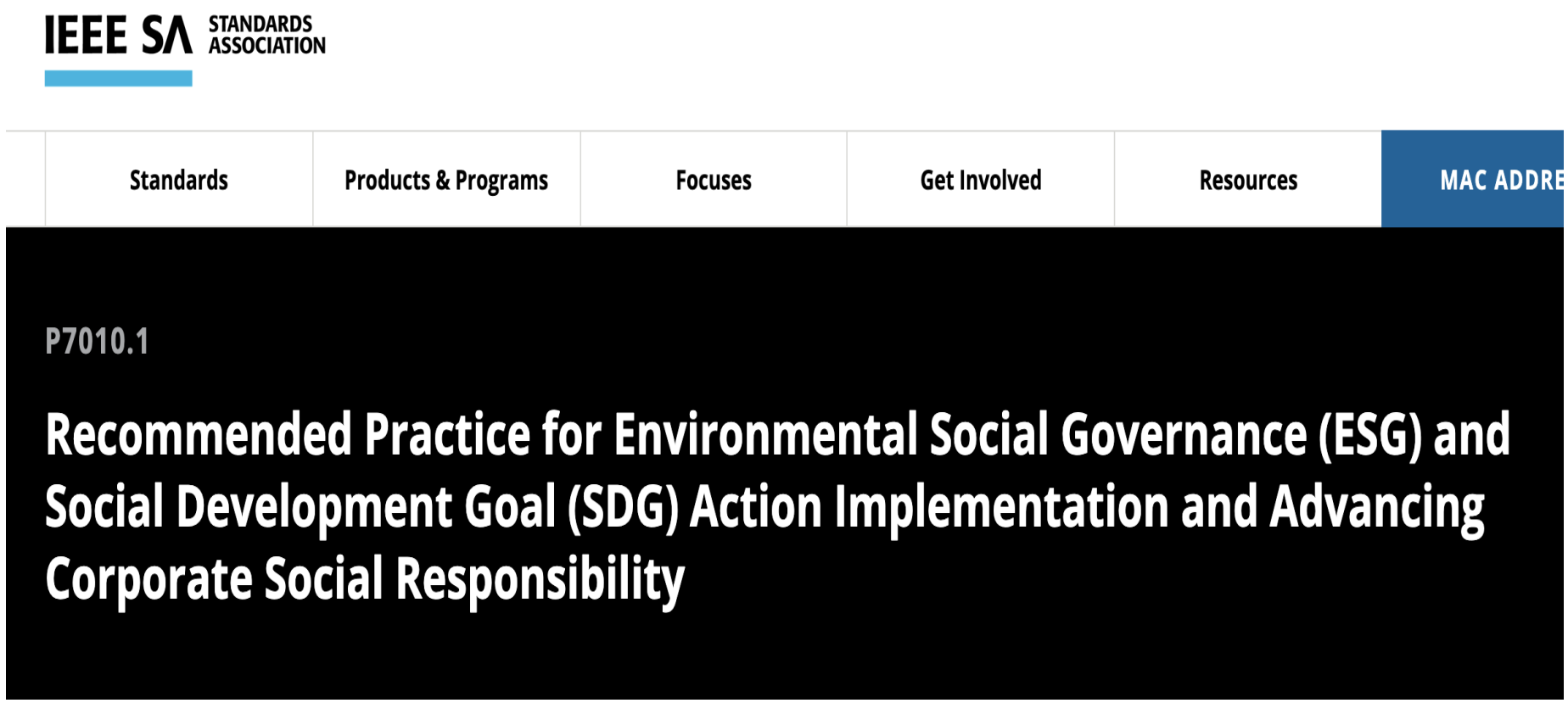
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P7010.1
Recommended Practice for Environmental Social Governance (ESG) and Social Development Goal (SDG) Action Implementation and Advancing Corporate Social Responsibility

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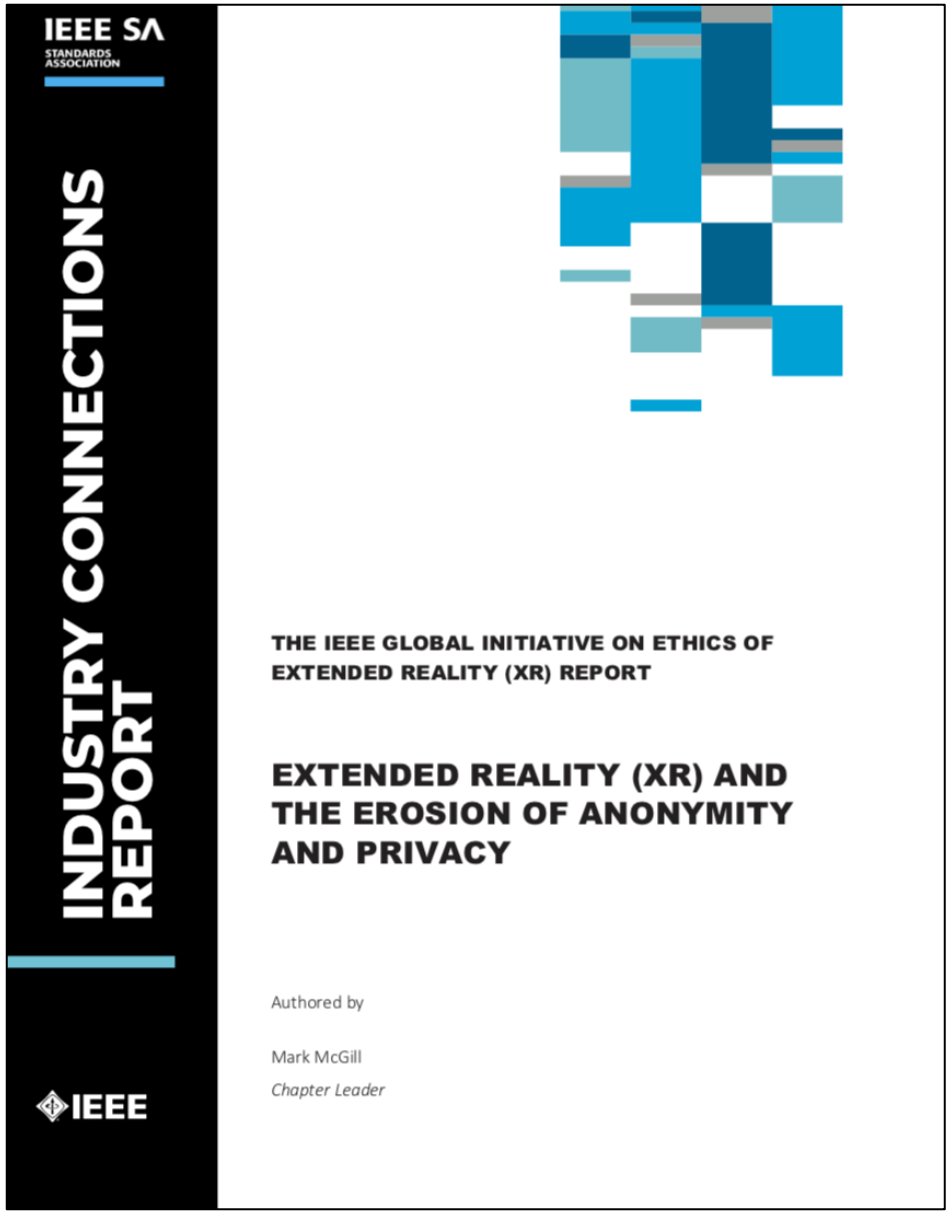
ETHICS OF EXTENDED REALITY



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Thank you.