

Ethics & Digital Transformation

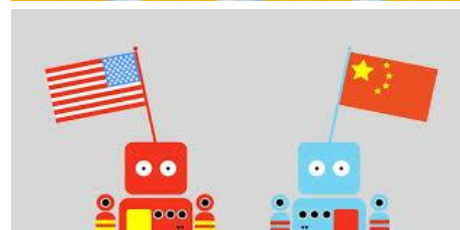
IFBEC Conference
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Digital transformation challenges for Ethics & Compliance Officers

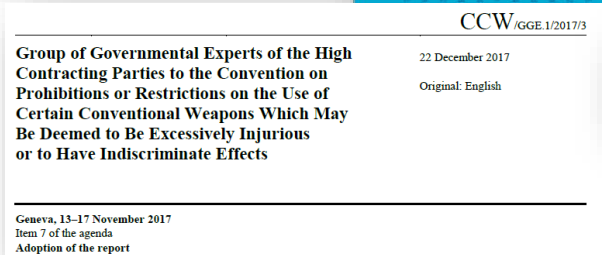
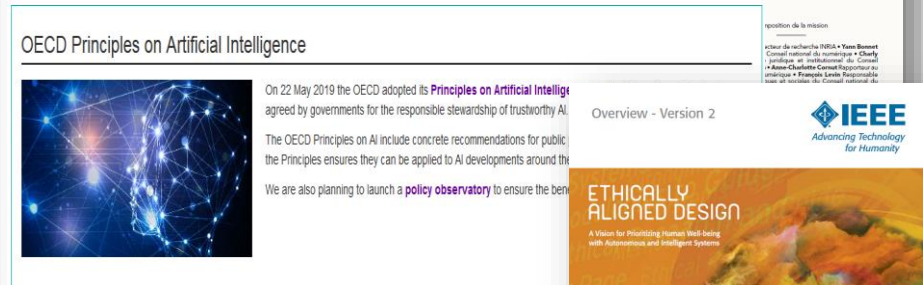
- ✓ **Challenge #1 :**
Dealing with uncertainty
- ✓ **Challenge #2 :**
Embracing various cultural perceptions
- ✓ **Challenge #3 :**
Setting the right behaviors
...with virtually no experience/rules



Multiple Guidelines from public authorities, think tanks...



Software Engineering Code of Ethics
IEEE-CS/ACM Joint Task Force on
Software Engineering Ethics and Professional Practices

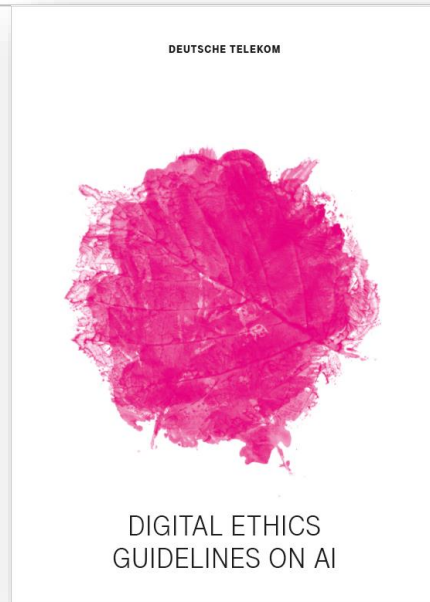
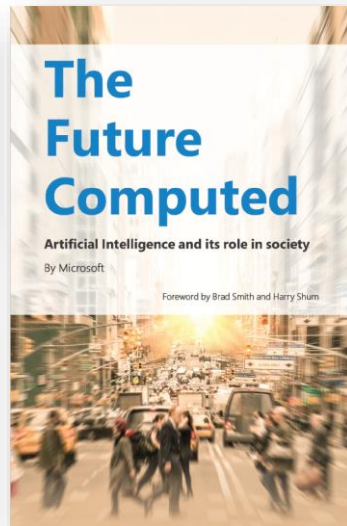


The Japanese Society for Artificial Intelligence Ethical Guidelines

ASILOMAR AI PRINCIPLES



... and private sector.



AI at Google: our principles



Sundar Pichai

CEO

Published Jun 7, 2018

At its heart, AI is computer programming that learns and adapts. It can't solve every problem, but its potential to improve our lives is profound. At Google, we use AI to make our products more useful—from email that's spam-free and easier to compose, to a digital assistant you can speak to naturally, to photos that pop the fun stuff out for you to enjoy.

Beyond our products, we're using AI to help people tackle urgent problems. A pair of high school students are building AI-powered sensors to predict the risk of wildfires. Farmers are using AI to predict the risk of crop failure.

Facebook Reportedly Has A Dedicated AI Ethics Team



Sam Sheehy Contributor
I cover artificial intelligence and Google DeepMind.



Fairness

AI systems should treat all people fairly

Inclusiveness

AI systems should empower everyone and engage people

Microsoft AI principles

Designing AI to be trustworthy requires creating solutions that reflect ethical principles that are deeply rooted in important and timeless values.

Reliability & Safety

AI systems should perform reliably and safely

Transparency

AI systems should be understandable

Privacy & Security

AI systems should be secure and respect privacy

Accountability

AI systems should have algorithmic accountability

A wide array of concepts...

Accountability / responsibility

Privacy & security

Reliability & safety

Transparency

Fairness & Equity

Beneficial for humans

Explicability

Human control

Avoiding bias

Inclusiveness

Human centric

Respect for autonomy

Prudence

Sustainable development

Prevention of arm

Against arm race

Preserve democracy

Respect laws

Loyalty

...and questions.



HLEG – Ethics / 130 questions

- Did you carry out a fundamental rights impact assessment where there could be a negative impact on fundamental rights? Did you identify and document potential trade-offs made between the different principles and rights?
 - Did you assess the type and scope of data in your data sets (for example whether they contain personal data)?
 - Did you clarify the purpose of the AI system and who or what may benefit from the product/service?
 - Did you assess to what extent the decisions and hence the outcome made by the AI system can be understood?
 - Did you establish mechanisms that facilitate the system's auditability, such as ensuring traceability and logging of the AI system's processes and outcomes?
 - Did you consider the appropriate level of human control for the particular AI system and use case?
-
- Did you establish mechanisms to measure the environmental impact of the AI system's development, deployment and use (for example the type of energy used by the data centres)?
 - Did you provide training and education to help developing accountability practices?
 - Did you establish processes for third parties (e.g. suppliers, consumers, distributors/vendors) or workers to report potential vulnerabilities, risks or biases in the AI system?

Our approach



■ **Charter**

■ **Collaborative**

■ **Accessible**

■ **Iterative**

■ **Implemented through existing ethics & compliance channels**

➤ **Consistency**

- Compliance with values & code of Ethics

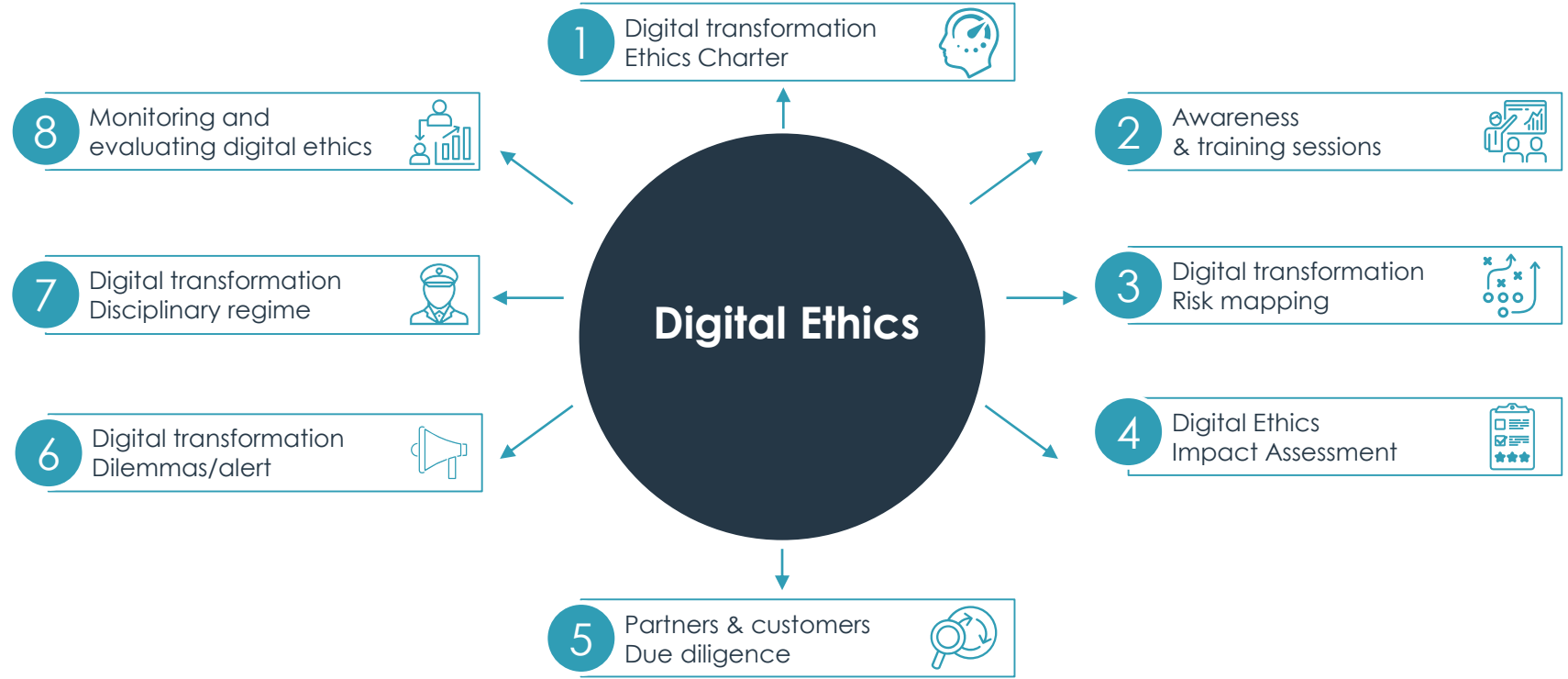
➤ **Vigilance**

- Respect Human Rights, inclusion & privacy
- Prevent discriminatory biases
- Protect environment

➤ **Responsibility**

- Human remains responsible
- Transparency
- Explicability
- Loyalty
- Subject to internal & external controls

Implementation



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