

Interaction between Society and Technology

- AI/Robots that **solve** the social problems?
- AI/Robots that **create** the social problems?

*What kind of society do we want to live in?
And how to design the society and technologies?*

*We need to have a conceptual investigation:
unpack underlying assumptions of **the concept**
to start cross-cultural, inter-disciplinary dialogue*

AI Governance for SDGs

#AI4Good, #AI4SDGs



Risks of AI/ICTs

1. Research(ers) Ethics

Dual use, researcher's responsibility, education

2. AI Ethics

Principles, best practices, research on social impacts

3. Ethical AI

Fair, transparency, accountability, explainability

Government, academic, industries public international partnerships in Japan and abroad



PARTNERSHIP ON AI



Cooperation for Beneficial AI (2017)

Public

Artificial Intelligence (AI) promises to be one of the most transformative technologies in human history. Wherever it is developed, its impacts will soon be global. This means that the challenges of ensuring that it is beneficial are challenges for us all.

We urge that these challenges be addressed in **a spirit of cooperation, not competition**. Our collective task should be to ensure that AI contributes to sustainable human flourishing across the world. It should be demonstrably safe, reliable and robust, and should be developed in alignment with the values of the communities in which it will be deployed.

These goals call for wide collaboration on the development and deployment of AI, both within and between the societies of the world. **This collaboration needs to be broadly-based, with the participation of a diverse range of institutions and individuals, from civil society, industry, academia and the policy sector.**

Most importantly of all, the collaboration needs to be global. AI will have profound effects on every culture and nation, and all cultures and nations should have a voice in how it is developed and used. AI has the potential to be one of the greatest achievements of our human species. To do it well we must do it together.



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<http://www.aiandsociety.org/>

Japan Deep Learning Association: Education for engineers and all

JDLA aims to develop Deep Learning **Generalist**, capable of utilizing in business, and Engineer, capable of implementation, which both has sufficient knowledge in Deep Learning. Test includes **ethical, legal and social implications**.



G Test Generalist

Determines the ability to make appropriate decisions and use Deep Learning in a business situation.

E Certification Engineer

Certifies apprehension of theory and the implementation skill for deep learning engineers.



Guidelines for Japanese Society for Artificial Intelligence researchers (2017)

1. Contributions to humans
2. Abidance of laws and regulations
3. Respect for the privacy of others
4. Fairness
5. Security
6. Act with integrity
7. Accountability
8. Communication with society and self-development
9. Abidance of ethics guidelines by AI

- AI must abide by the policies described above in the same manner as the members of JSAI, in order to become a member or a quasi-member of society.



International Collaboration



THE
FUTURE
SOCIETY

The Cabinet Office: Social Principles of Human-centric AI (Draft)

- **Fundamental Philosophy**
 - (1) Dignity, (2) Diversity & Inclusion, (3) Sustainability
- **Social Principles of AI**
 1. Human-centric
 2. Education
 3. Privacy
 4. Security
 5. Fair Competition
 6. Fairness, Accountability, and Transparency
 7. Innovation