

Nordic engineers' stand on Artificial Intelligence and Ethics

Policy recommendations and guidelines

Policy Recommendations

“While engineers and their organizations will need to shoulder much of the growing responsibilities in the design and implementation of AI systems, the relevant governing bodies of the Nordic countries and at EU level must acknowledge their own responsibilities and opportunities for action.”

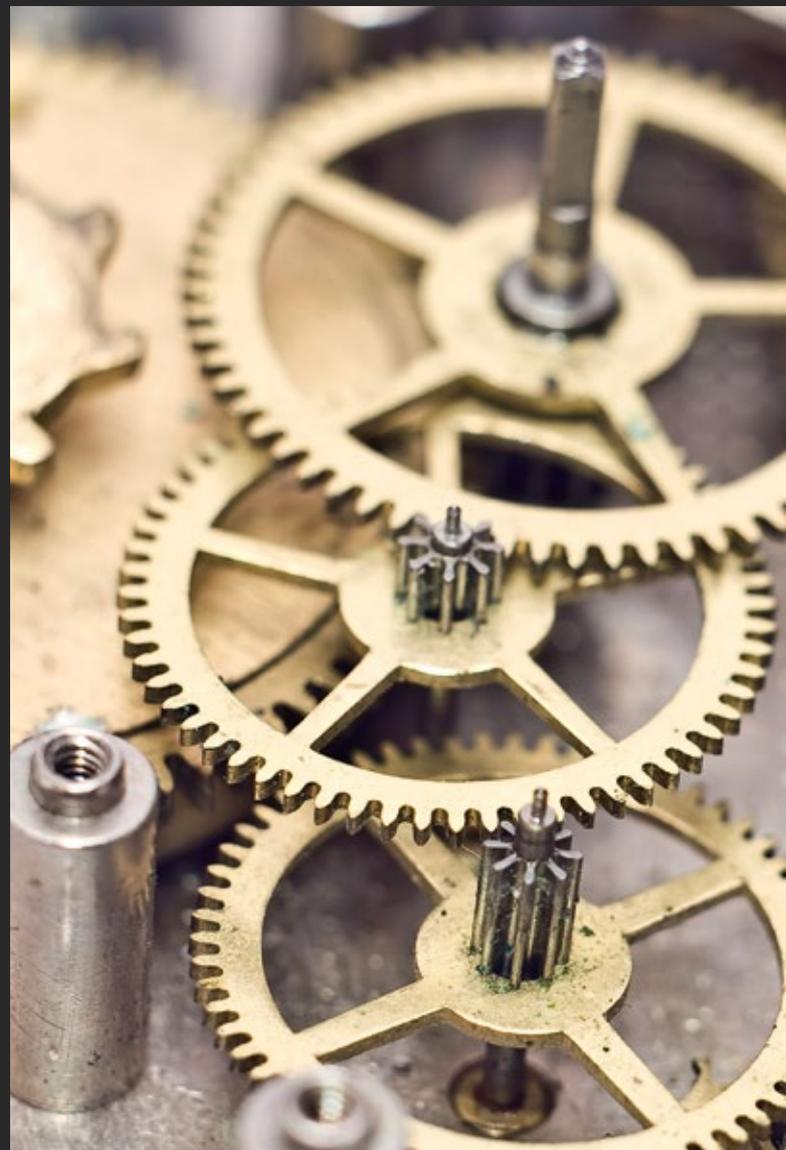
1. There is a need to anchor discussions on the political level and to advance the public understanding on AI. This could be accomplished through the creation of a platform - a meeting space that would engage decision makers, business, academia, civil society and professionals including engineers to come up with stable and transparent solutions for AI through joint discussions.

2. Education for ethical considerations and guidelines is often insufficient in the technical disciplines and throughout work-life. This needs to be addressed through changes in educational goals and priorities for technical subjects as well as through provision of relevant opportunities for lifelong learning.

3. Development of an appeal process with governmental oversight is crucial. Such a process must enable individuals and organizations to address the AI behaviour and decisions that they find potentially harmful.

4. There is a need for shaping regulation and legislation to govern issues related to AI that formalises relevant responsibility and defines accountabilities.

5. Engineers, policy makers, civil society and the general public need spaces for sustaining a living dialogue around issues of AI and ethics. These need to be facilitated and supported through funding and other forms of support.



List of guidelines

“Efforts towards ethical practices need strong institutional backing to be effective, and therefore, organizational commitment is a requirement for addressing ethics in AI.”

1. Create spaces for discussion of the issues around AI and ethics. These need to be facilitated and supported by both workplaces and civil society organizations.
2. Invest into and develop tools that enable ethical discussions, questions and decision making throughout the design process and not only at the beginning and the end.
3. Establish a set of internal standards and checklists tackling ethical issues in AI development such as ensuring meaningful human control.
4. Support and facilitate internal reporting of risk and violations, establishing rules for clear action in response.
5. Establish internal training programs for staff to deepen an understanding of ethics, and to develop skills for ethical reflection, debate and recognition of biases.
6. Pay special attention to potential biases encoded in system development, training data and model performance, especially those that may affect the most vulnerable.



7. Develop ways for accepting organizational responsibility for potential harm, for example, by establishing ways to address the harm inflicted on others by AI systems that the organization has built.
8. Establish an internal ethical review process that democratizes company decision-making by involving more internal actors.
9. Work to increase transparency not only in the decisions leading to design and development of AI systems, but also in organizational chains of responsibility.
10. In working towards transparency, maintain awareness that transparency has its own ethical pitfalls and limits.

About the event and organisers

The hackathon *Nordic engineers stand on artificial intelligence and ethics* was organised jointly by the Association of Nordic Engineers, ANE and the IT University of Copenhagen, EthosLab. The event taking place on 25 September 2018, gathered members from the ANE affiliate organisations - engineers and students in engineering, IT and natural sciences with competences in AI and its applications.

ANE is a binding cooperation between the Swedish Association of Graduate Engineers (Sveriges Ingenjörer), the Danish Society of Engineers (IDA), the Norwegian Society of Engineers and Technologists (NITO) and the Association of Chartered Engineers in Iceland, VFÍ. The negotiation of the Finnish organisations' membership in ANE is ongoing. The associations from Finland sent one representative to take part at the hackathon.

Together, ANE represents more than 340,000 engineers in the Nordic Region. The mission of ANE is to promote the interests of Nordic engineers through Nordic cross-organisational cooperation.

The event was facilitated by scholars from the IT University of Copenhagen who specialize in research on ethics and technology development.

MORE INFORMATION ABOUT THE EVENT

[Full report](#)

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