Response to the European Commission Draft Artificial Intelligence Act

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Background

On April 21st, The European Commission released its proposal for the first ever legal framework on AI. The proposal addresses the risks of AI and aims to position Europe to play a leading role globally.

The Norwegian Ministry of Local Government and Modernization has invited Norwegian actors in the AI field to comment on the proposal. This document presents the view of the Norwegian Open AI Lab, and is also supported by NTNU Digital.

About The Norwegian Open AI Lab (NAIL): NAIL is a center for research, innovation and education within AI, hosted by NTNU. NAIL is a partnership organization, and our current partners in industry, business and the public sector are DNB, DNV, Equinor, Kongsberg, Telenor, SINTEF, TrønderEnergi, The Norwegian Computing Center, The Norwegian School of Economics, Trondheim Municipality, DeepInsight, Sticos and Zeabuz.

About NTNU Digital: NTNU Digital is NTNU's strategic initiative to increase the understanding, use and development of digital technology as a tool to solve complex issues across research disciplines.

Key recommendations

In response to the draft Artificial Intelligence Act, the Norwegian Open AI Lab, makes the following key recommendations to the European Commission:

1. Clearer descriptions are needed for how this regulation will impact products or services governed by already existing regulations.
2. Specifically, the area of autonomous systems is not dealt with in the proposed regulation. This is a missed opportunity with respect to defining a set of common regulatory principles across applications of technology for autonomous systems.

3. Businesses will not be able to act on the regulation before harmonized international standards exist. Top priority must therefore be given to developing such standards in parallel with the development of the regulation itself.

Trustworthy AI as the norm

We support the ambition set out in the proposed legislative framework, that AI should be a tool for people and a force for good in society, with the ultimate goal to increase human well-being. We agree that a legal framework for trustworthy AI is a necessity in order to develop an AI ecosystem of trust in Europe. A lack of trust from citizens and unclear legal conditions for companies could slow down the development and uptake of AI technologies, and hence reduce the competitiveness of Europe.

Disparate regulatory responses by national authorities would risk a fragmentation of the internal market. Hence such regulation clearly needs harmonization at the European level. Regulation is needed to ensure that AI systems, products, and services deployed in Europe comply with European norms and values. We therefore welcome the draft regulation.

The regulatory landscape

As the technology progresses further, AI will play an important role in an ever-increasing number of systems, products, and services. The draft Artificial Intelligence Act aims to put down fundamental principles to govern such use. However, we find it challenging to understand the connection between the proposed regulation and already existing policy provisions, specifically with respect to the use of AI in products and services that are governed by already existing regulations such as for cars, marine equipment, etc.

The draft Artificial Intelligence Act also needs to be seen in conjunction with other relevant and recent regulations. In particular, emphasis must be given to harmonizing the Artificial Intelligence Act and the recently proposed Data Governance Act as well as the General Data Protection Regulation.

Companies that are developing or integrating AI in systems, products, or services rely on harmonized standards as a means of verifying that their offerings meet relevant regulations and directives. It is therefore critical for continued innovation that harmonized standards are developed with the maximum priority and minimum delay from the release of the new Artificial Intelligence Act.

Definitions / delimitations

How AI is defined will determine whether a specific product or service falls under the regulation, alternatively whether this is open for interpretation. A clear and concise definition that leaves few grey areas is therefore of critical importance. The approach taken is to base the definition on the techniques and methods being used, rather than basing it on the features of the product or service. We believe this is a good approach that leaves less ambiguity than many of the alternatives.

The proposed legal framework is meant to be future proof in its fundamental choices. However, this appears to be an overly optimistic view in the light of the rapid developments in the field. With respect to the approach taken to define AI, the consequence is that frequent updates to Annex I will be needed as the field progresses and new techniques are developed.

The risk-based approach

The fact that the draft regulation has a risk-based approach, allows for different levels of intervention for different AI applications, based on the associated risk. We welcome this approach. Moreover, we appreciate that the draft regulation bans certain use cases of AI that are not aligned with fundamental and shared values in Europe. The number of risk categories and the orientation of each category seem appropriate.

The high-risk category includes AI applications with potential to bring societal benefits, economic growth and enhanced innovation and global competitiveness. A balanced regulation will increase the level of trust by citizens in such products and services, and it will reduce uncertainty and risk for companies.

The regulation identifies two main categories of high-risk AI systems; firstly, those that use AI systems as safety components of products subject to third party conformity assessment, according to already existing regulations; secondly, AI application areas with implications for the fundamental rights of citizens, in which a set of eight application areas are listed. For seven of these, the regulation mandates a self-assessment scheme for the ex-ante conformity assessment. The latter of the eight application areas, remote biometric identification systems, shall be subject to third party conformity assessment.

It is expected that safety components based on AI technology will play an important role in a wide range of products in the future. We find the draft regulation vague in its

description of how it will be integrated into existing sectoral safety legislation. Most notably, the topic of autonomous systems is not dealt with in this proposal. Autonomous systems will play an integral role in many different products, such as cars, marine vessels (surface and sub-surface), and aviation. By neglecting this topic, we risk that use of autonomous systems in different product categories will not be regulated according to a set of common criteria and procedures.

We consider the balance between requirements for self-assessment and third-party assessment to be reasonable. The regulation lists seven areas with requirements that high-risk AI systems must meet. Best practices for the development of AI technologies include all these areas, and we therefore find that the burden put on the developers and technology providers by this regulation is not unreasonable. The key challenge is however that harmonized standards do not yet exist for all areas. Three of these areas stand out as particularly challenging and in need of new standards.

Data and data governance: statements such as “data sets shall be relevant, representative, free of errors and complete” need interpretation and clarification.

Human oversight: statements such that the human oversight operator shall “fully understand the capacities and limitations of the high-risk AI system” seem unrealistic for highly sophisticated and complex applications in specialized areas, and therefore needs interpretation and clarification.

Accuracy, robustness and cybersecurity: this area covers complex requirements, including issues such as bias in continuous learning systems, data poisoning and adversarial data. Again, interpretation and clarification are needed through harmonized standards.

Implications for innovation

The code of conduct as described by the draft regulation in large parts follows best practices for the development of AI systems. As such, this regulation therefore to a reasonable degree avoids putting extra burdens on the companies developing and integrating AI systems in products and services. To the degree that this regulation reduces the timeline before relevant harmonized standards become available, one could argue that the regulation will indeed *stimulate* innovation. The new harmonized standards

will specify procedures and methods needed to fulfill the regulation, and we believe that these procedures will prove useful to the companies.

It is encouraging to see regulatory sandboxes as part of the EC proposal, as the industry has been advocating this for many years. The UK and Norway among others have started to gain experience with this, and we support this instrument in order to stimulate innovation also in complex and challenging areas.

We support the principle that providers of minimal risk AI systems will not be forced to adhere to the codes of conduct but can do this on a voluntary basis. We believe that being able to document internal developer practices in this field in line with the code of conduct in many cases will be a competitive advantage.

Next steps

We believe that engagement and broad dialogue will be critical in the months and years to come. More nuanced legal definitions are needed, to create even more legal certainty within such a fast-moving domain as AI. In that, it is critical to hear from industry, civil society and academia. We support attempts of the Commission to engage a broader community.

Specifically, it will be important to convince businesses and politicians, both in Europe and globally, that the AI regulatory framework does not intend to slow down innovation in Europe. Instead, the framework represents an opportunity to create a framework for trustworthy AI practices that could be adopted outside of Europe as well. For that, a pragmatic, knowledge-driven and supportive approach is needed, among industry and policy makers - in the form of sharing best practices.

It is encouraging to see EC´s ambition to create a joint AI, Data and Robotics Partnership and seek wider and more active industry involvement therein. The partnership could be instrumental not only for setting the research and innovation agenda for AI in Europe, but also in setting priorities for technology testing and fostering good sandboxing practices.

No ethical AI is possible without having knowledge and financial muscles to develop and deploy AI technology in the first place. We need to accelerate private and public investments into AI uptake across Europe. Moreover, we need to discuss how we can

attract investors who believe in Europe's ability to do breakthrough AI research and innovations, and who can scale the AI business. We have high-quality AI research in Europe, and European research environments are well positioned to make new breakthroughs. However, our challenge in Europe is to transfer research into production at a fast rate and cater for new, global market needs. Additionally, we are struggling to attract and retain top-notch talents in Europe and create a vibrant and scalable startup and SME ecosystems. We hope to see that the Commission gives this challenge high priority going forward.

We applaud the Commission’s suggestion to increase investments into AI, including the revision of a Coordinated Plan and the planned investment of 1 billion EUR per year into AI Research and Innovation through the Digital Europe and Horizon Europe programmes. It will be crucial to involve businesses in these efforts. The plans to attract 20 billion EUR investments into AI per year is ambitious. For this investment to be spent efficiently, industrial priorities for Europe should be decided on by the Member States. Europe should accelerate the uptake of AI in already strong digital, global industries (such as energy, heavy machinery, chemicals) and boost the uptake of AI in the public sector. Green and Sustainable AI will also open new growth opportunities.