



Directorate-General for Communications  
Networks, Content and Technology  
European Commission  
1049 Bruxelles/Brussel  
Belgium

## Comments on the White Paper on Artificial Intelligence-A European approach

**In February 2020, Europe took a clear stance on AI: to foster uptake of AI technologies (underpinned by what it calls ‘an ecosystem of excellence’), while also ensuring their alignment with European ethical norms, legal requirements and social values (‘an ecosystem of trust’). While the white paper on AI of the European Commission does not propose legislation yet, it sets the tone for much needed regulatory measures.**

This strong focus on governance of AI systems, should start with an understanding of *what is AI, and why it needs governing*. Even though the working definition of AI provided in the White Paper (“AI is a collection of technologies that combine data, algorithms and computing power”) is rather vague and can apply to any software system, the underlying vision is grounded on a multidisciplinary view on AI and its impact on society. One can draw an analogy with traffic regulations. There are laws and regulations to determine the roadworthiness of cars, but those are not enough to guarantee safe traffic. We also need traffic laws to regulate the people using the cars. In a similar way, governance of AI cannot be limited to its software components, but needs to focus on the social structures around it: the organisations, people and institutions that create, develop, deploy, use and control AI and those that are affected by it in their role of citizen, consumers, or workers. At Umeå University, we fully endorse this inclusive view which aligns with Umeå University’s research directions. Our current efforts are designed to realize excellent research and to develop competence that furthers the current state of AI technology, as well as contributing to a deep understanding of the consequences and challenges of artificial intelligence to humanity and society. To this end the university is investing around 500 MSEK in the coming 10 years, including investments in computational technology.

Umeå University is a growing international player in AI research, with over 70 new researchers on AI joining our faculties. Our research aims to integrate data-driven approaches to AI with knowledge-driven, reasoning-based approaches, centred on human values and principles. We urge the European Commission to, rather than racing blindly after others, embrace such a broad range multidisciplinary view on AI, for which Europe is well known internationally, and that ultimately is key to sustainable and trusted AI. Ultimately, trustworthy AI cannot be a choice between an accurate black box AI-system and an explainable but less accurate AI-system. We need both. To continue with the traffic analogy: the choice is not who builds the fastest or biggest car, but the most useful and trustworthy car. Research on these combinations is sorely needed, and we are proud that this is the focus of the research contributions of Umeå University.



In our view, dealing with the challenges, risks and benefits of AI for humanity and society requires more than bridging between data-driven and model-driven computational approaches to AI. The current pace of change for AI innovation is high, requiring societal, institutional and technological adjustments, and new opportunities for continued innovation across different domains. In order to navigate this potential, explore opportunities and mediate challenges, it is essential to bring humanities and social sciences into the conversation. Only through working together across disciplines, and in collaboration with public and private stakeholders, we can set the direction towards a sustainable and trustworthy future. In partnership with the city of Umeå and the Västerbotten region, our current efforts in the Digital Impact North initiative, align directly with the European ambition laid out in the white paper for a tight collaboration between the private and the public sector, aiming to “mobilise resources to achieve an ‘ecosystem of excellence’ along the entire value chain, starting in research and innovation, and to create the right incentives to accelerate the adoption of solutions based on AI, including by small and medium-sized enterprises (SME)”.

The white paper rightly acknowledges the fact that AI does not operate in a lawless world and acknowledges the need for a regulatory framework for AI in Europe. We very much agree with the risk-based approach taking into account the changing needs of future applications, while putting our fundamental rights at the centre of all development. The potential impact of AI, both positive and negative, is too large to be left outside democratic oversight. We applaud the direction taken by the European Commission of taking up a rule setting role, given that independently of who is playing the game, without rules no one wins.

A blue ink signature of Hans Adolfsson, consisting of stylized, flowing letters.

Hans Adolfsson  
Vice-Chancellor  
Umeå University