

May 28, 2018

Open Letter to the governments in Sweden, Iceland, Norway, Finland, and Denmark

- From Nordic Learning & Intelligent Systems research leaders

Nordic support for a European Lab for Learning & Intelligent Systems - ELLIS¹

There is a huge potential for machine learning and intelligent systems in Nordic countries: The Nordic countries are some of the most digitalized in the world. The Nordic public, government and business sectors embrace digital services and the internet.

The Nordic countries have highly digitalized educational systems that support learning and communication. We have strong universities; ranked among the best in the world. Our machine learning groups have very long traditions and operate at a high international level. There is a massive interest from students: The Technical University of Denmark trains more than 1000 students/year in machine learning and *Macadamia* (Machine Learning and AI) is the most popular Master's program in Aalto University. In our research we address theoretical and real-world problems, often with a strong focus on human aspects. At The Arctic University of Norway, machine learning research is providing new solutions in health technology and for the climate in the vulnerable and sparsely populated arctic regions. Machine learning research at the University of Iceland is used to develop new significant approaches for improved information extraction of big data in remote sensing and biotechnology, providing important detailed information in environmental monitoring. In 2015 the largest individual Swedish research program to date, *Wallenberg Artificial Intelligence, Autonomous Systems and Software Program (WASP)*, was started in collaboration with five of Sweden's major universities. The total funding to date for WASP is SEK 3.5 bn.

Yet, like the rest of Europe, the Nordic machine learning and intelligent systems communities have not expanded fast enough to meet the rapidly growing need needs for talent and invention. To be competitive with the massive accumulation of funding and talent in the US - and emerging in China – coordinated investments in Learning & Intelligent Systems need to be orders of magnitude bigger than the national programs.

¹ <https://ellis-open-letter.eu/>

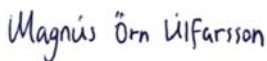
A group of AI researchers have suggested that the European governments set up an intergovernmental European Lab for Learning and Intelligent Systems (ELLIS¹), inspired by the European Molecular Biology Laboratory. The initiative aims at creating a competitive platform for excellent fundamental research and use of machine intelligence to foster economic development and improve the lives of people.

As Nordic AI researchers we support the proposal – a joint European effort is needed!

We recommend our Nordic governments to engage with the rest of Europe on this issue and take a leading role in the initiative. The Nordic mindset is needed more than ever in the context of AI - to ensure the safe, sustainable and democratic development of these disruptive technologies.



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