



BEYOND CHATGPT: EUROPE NEEDS TO ACT NOW TO ENSURE TECHNOLOGICAL SOVEREIGNTY IN NEXT-GENERATION AI



CALL FOR ACTION FOLLOWING THE EU PARLIAMENT MEETING (25 MAY 2023)

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AI technologies are fundamentally changing industries and society at a swift pace. Jobs change, jobs are replaced, and new jobs emerge. Healthcare, education, science and engineering are all undergoing a fundamental transformation driven by AI. Recent developments in Large Generative Models (originating from Large Language Models (LLMs) that have been extended to include image, video and other modalities) and their applications such as ChatGPT are fundamentally changing AI.

Why AI Matters

There is general agreement among experts that this is not just an incremental improvement. Instead, it is a singular event that is dramatically transforming society and AI at its core. This is because in its essence, this latest wave of AI technology results in comprehensive, flexible world models that reflect reality as described by the unimaginably large corpus of online data about the world (text, images etc.) on which they were trained. This is why systems that build on them can not only generate eloquent text, but can provide plausible answers to complex questions, generate realistic images from simple descriptions and even, to a very limited degree, write and explain computer programs. There is little doubt that in the near future, most if not all advanced AI systems will to some degree incorporate this disruptive technology. As a consequence, whoever controls it will control not only AI, but also the future of science and engineering, which critically depends on AI.

Should one country or company be able to achieve a monopoly on such Large Generative Models, it will automatically achieve dominance in many (if not most) areas of AI and its many applications.

What is at Stake?

Currently the most performant and the only broadly used models are owned by US companies that have invested billions in the required infrastructure to train and maintain such models. All we can do in Europe at the moment is to depend on licenses from those companies to use their models. As these AI models are essentially world models, they encode values and views of the world. Relying on models developed outside Europe implies relying on AI systems that may not be aligned with European values. Eventually, core European values, especially those related to solidarity and democracy, could break if we allow our dependence on US (or Chinese as China also invests billions to catch up) technologies in this field to become locked into our economy and public institutions.

Regarding economic and technological sovereignty, for Europe, this is an emergency comparable to the disruption in energy supply caused by the Russian invasion of Ukraine. We need to address this emergency before our technological dependence becomes deeply locked in.

We need a concentrated effort to provide a **large-scale technical infrastructure** (including support staff, governance, administration structures and tools) dedicated to developing, training and running large European generative AI Models on a **scale comparable to or going beyond the current state of the art.**

We need to leverage that infrastructure to develop and train the next generation of such models that capture a long-term human-centric European world view, rather than a short-term, profit-oriented world view driving their current development. We need to systematically and carefully investigate their strengths, their weaknesses and their impact on our society.

AI Made in Europe

Europe is already at the forefront of regulation and responsible, ethical design of AI systems that are trustable, with the required scaffolding that ensures that those developing, deploying and using it can be held accountable for the potential harms resulting from the systems. However, regulation alone is not sufficient to protect European values, sovereignty and economic interests in the AI era: towards that end, leadership in AI research and innovation is crucially needed.

Specifically, the EU needs to be at the forefront of development of new generative AI models and other AI techniques compliant-by-design with the regulation and well aligned with European values: multi-lingual, attentive to cultural diversity, non-discriminatory and respectful of human rights. These models and techniques must be governed for the benefit of all Europe, not merely the stakeholders of a small number of global hi-tech businesses. The EU is making important investments in EuroHPC, data spaces and AI excellence within research networks, but this is not enough.

▶▶▶ Action Points

What is urgently needed now is a large-scale, highly focussed, public investment into European Large Generative Models (and research on related technologies). For this AI-specific computing, data infrastructure, science and research support are needed that will allow Europe to lead rather than play catch-up in next-generation AI technology and its applications.

We call upon the European Commission, the European Parliament, the Council of the European Union and the governments of the EU member states to make this investment without delay, to protect our technological sovereignty, our shared values, and our future.

WHO ARE WE?

This letter is a follow-up to a meeting in the EU parliament. The letter is supported by the [HumanE AI Net](#) and [TAILOR ICT48](#) projects, [CLAIRE](#), [UNESCO](#), [IRCAI](#), [TAIGA](#), [EurAI](#), [ELG](#), and [ELE](#). In addition to those entities, [AI4Media](#) and [ELISE](#) co-organized the Parliament event.

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Want to know more about the **European Parliament Meeting in Brussels, Belgium (25 May 2023)?**

<https://www.humane-ai.eu/event/humaneai-parliament/>