Recommendations to the EU Parliament regarding the EU AI Act

Abstract

Open-source AI models offer enhanced security, explainability, and robustness due to their transparency and the vast community oversight. They promote environmental sustainability by minimizing redundant training and fostering re-use, and serve as a catalyst for innovation, especially for small and mid-sized enterprises. To leverage these multifaceted benefits and uphold European sovereignty in AI, it is recommended that the EU Parliament incentivizes open-source releases of AI models.

To the Honorable Members of the EU Parliament,

Open-source AI models, including foundation models, represent a paradigm that carries significant benefits for the industry, research, and society at large. In contrast, the alternative of closed-source does not provide a lasting solution to challenges entailed by the highly dynamic development of AI with its fast reimplementation of existing approaches. This memo aims to present the core arguments in favor of open-source models and to recommend appropriate regulatory positioning.

1. **Scientific and technological reproducibility.** A crucial point is the aspect of scientific reproducibility and validation provided by open-source foundation models and corresponding open datasets. Investigations and experiments on open foundation models are reproducible and can be executed by a broad research community to validate any claims put forward about their properties and function. This reproducibility - not given in closed-source counterparts - secures scientific standards for treatment of foundation models, which is vitally important for transparent scientific and technological progress.

2. **Transparency and Security**: Open-source AI models, by virtue of their accessibility and transparency, are inherently safer than closed-source counterparts. The collaborative nature of open-source means a larger community can detect and fix vulnerabilities, thereby enhancing the overall security and robustness of the model. Moreover, the well-established processes in the open-source community, as exemplified by the robust and secure Linux operating system, ensure stringent oversight and continuous improvement. Closed-source models, on the other hand, have a limited scope of oversight, potentially increasing their vulnerability.

3. **Sustainability and Environmental Impact**: Open-source models promote environmental sustainability by preventing redundant training runs. Reproducing similar capabilities across various closed-source models consumes vast computational and thus energy resources. By making foundation models open-source, we avoid this duplication of effort, thereby conserving computational resources and energy, and allow efficient and low-threshold re-use.

4. **Innovation and Access**: Open-source foundation models act as a springboard for innovation, especially for small and mid-sized enterprises. Fine-tuning these models, a more affordable process than training from scratch, enables smaller entities to drive innovation. Restricting access to datasets and models can deter innovation and may prompt researchers and organizations to migrate out of Europe.

5. **European Sovereignty and Global Challenges**: An environment conducive to AI research with open-source AI models and their development is crucial for maintaining European sovereignty in AI. Open-source AI research has the potential to address global challenges, from healthcare to climate change.

6. **Recommendation for Incentivization**: To strike a balance between commercial interests and societal benefits, we recommend incentivizing firms to release their foundation models as open-source while allowing them to retain proprietary rights over fine-tuned, industry-specific versions. This ensures broader access to base models without compromising commercial competitiveness. Leveraging proven strategies such as "open-core" and "freemium" models could offer a practical roadmap. Furthermore, considering that many foundation models are built using public data, there stands a moral imperative to keep them open-source.

In light of the aforementioned benefits of open-source AI models, particularly in terms of security, sustainability, and fostering innovation, it is recommended to adopt a regulatory approach that distinctly favors open-source (foundation) models, over closed-source models. It is imperative that regulation focuses primarily on the actual applications built atop these models rather than the open-source (foundation) models themselves. This strategy not only spearheads technological advancement in Europe but also charts a course for ethical and sustainable growth, promoting a development paradigm that is both innovative and responsible.

In general, we think that it is also very important to focus on regulating the usage of AI technology, and not on the regulation of AI Algorithms themselves.

Yours sincerely,

LAION e.V.

Supporters

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Irina Rish	Full Professor at the Université de Montréal, a core member of Mila - Quebec AI Institute. Canada Excellence Research Chair (CERC) in Autonomous AI and CIFAR Chair. PI on a collaborative INCITE project on the Summit supercomputer at OLCF (supported by the U.S. DoE, Office of Science), aiming to build open-source large-scale language and multimodal models (e.g., RedPajama-INCITE was trained as a part of this project).
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