Opinion Essay

Is unregulated AI research a good idea?

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1 Introduction

The rapid development of artificial intelligence (AI) has attracted worldwide attention and promises far-reaching changes in many areas of life. From business and medicine to everyday applications - the potential of AI seems limitless. In this context, the question arises as to whether unregulated AI research is a good idea. This debate encompasses both the benefits of unregulated AI research and the associated risks and challenges. The following essay examines the arguments on both sides and draws a conclusion on whether and how AI research should be regulated.

2 Potential Benefits of Unregulated AI

Unregulated AI describes the research and usage of AI without any overlaying regulations or restrictions. The benefits of this can have particular positive effects on economic growth, medical advancements and healthcare systems.

Economically, AI shows a tremendous promise to transform industries by enhancing productivity and creating innovative ideas through automation, data optimisation and other transformative technologies.[1] Unrestricted research in AI empowers businesses to create AI innovations swiftly and efficiently to implement the solutions in different productive sectors, which consequently might increase economic production and give those companies the edge over other competitors in the global market. The energy sector provides a good example: The rising number of small and less centralised renewable energy sources, coupled with the increase in electricity usage due to electric cars and batteries puts more stress onto the grid, demanding intelligent and fast management systems.[2]

Unregulated research in the healthcare sector can greatly accelerate new and innovative solutions and reduce costs in the process. In diagnosis, diseases can be recognised earlier and more efficient treatment made possible. In this way, a model for detecting cancer at an early stage has been developed and used.[3] In addition, new drugs can be modelled and simulated first, which saves on expensive practical tests and makes the market launch not only cheaper but also faster.[4]

3 Risks and Challenges

Unregulated research and use of AI harbours many benefits, but also risks and challenges that affect the ethical, socio-economic and security aspects of our existence.

A major ethical problem of open AI research is the bias of AI algorithms. Due to biased and prejudiced training data, it can happen that the inference of such a model leads to discriminatory results, for example when deciding on the likelihood of people being able to repay loans. If this discrepancy occurs in a widely used model, without regulations and guidelines this can lead to certain minorities being put at a greater disadvantage.[5]

The use of AI technologies can also lead to socio-economic changes. On the one hand, the collection of user data will become much more important and valuable, as this data can now be utilised more effectively. On the other hand, this advantage will most likely be in the hands of a few global players. Moreover, a major impact on the labour market is discernible and fields of work are becoming obsolete, while new ones are also emerging.

This comes with the risks that employees who do not have the necessary knowledge and skills to fill a newly created occupational field are left empty-handed.[6] Furthermore, the important areas for AI research, namely computing power, large data sets and highly trained specialists, have developed extremely strongly in recent years and this trend appears to be continuing. However, this development - like data collection - lies in the hands of a few large companies, resulting in a concentration of knowledge and resources and the associated risk that governments and society as a whole will no longer be able to control developments.[7]

Another risk is hidden in the scale and speed with which system-relevant processes are supported and partially replaced by AI. Governments use various models to automate and increase the efficiency of bureaucratic processes, but AI is also being used in security-related areas. Whether in unmanned military vehicles, drones or surveillance systems, unforeseen misbehaviour can have catastrophic consequences.[8] The risk is further increased by the fact that it is difficult to estimate why and when an error behaviour may occur. Modern AI models are opaque and hardly allow any conclusions to be drawn as to how a decision was reached.[9]

4 Regulations

The need for regulation of AI research is increasingly being recognised. Well thought-out regulation can help to minimise the risks and at the same time maintain the innovative power of AI. Ethical guidelines and standards play a central role in this. International principles and ethical guidelines for the development and application of AI should be established to ensure that AI systems operate fairly, transparently and responsibly. These guidelines must be regularly reviewed and adapted to new technological developments.[10, 11]

The transparency of the decision-making process of AI models is particularly important for their integration into our modern society. Only in this way can models be categorised as trustworthy and integrated into important, system-relevant processes, and only through traceability is it possible to reasonably assess the risks in advance.[5]

Finally, it should be mentioned that there must be regulations and mechanisms that can prevent or severely restrict the deliberate misuse of AI systems by states and corporations. Mass surveillance or unlawful military purposes must not leave any room for AI misuse.[8] To achieve this, there needs to be global cooperation between all parties involved to create a global standard for the use and responsibility of AI systems.[10]

5 Conclusion

To conclude, the risks of completely unregulated AI research and usage outweigh the beneficial aspects. Firstly, there must be guidelines and regulations to prevent malicious misuse by large players on a multinational scale, such as states or corporations. Secondly, there is a need for control systems to minimise the ethical and socio-economic dangers. The difficulty in creating these guidelines will be to minimise the economic and health potential of this new technology while still allowing innovation.

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