

Artificial Intelligence: Initiator of Opportunities or Creator of Ethical Concerns?

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Concluding from previous blog contributions titled “Artificial Intelligence and Employment – A Conflict between Ethics and Economic Efficiency?”, “Artificial Intelligence in our Private Lives – A Trade-Off between Simplicity and Security?” and “Competences for Producing Artificial Intelligence - Granting Access in an Ethically Acceptable Way” we find that many facets of AI require discussion and further analysis from an ethical perspective. In the following, the aspects open to ethical discussion as well as the technology’s positive properties found in above-mentioned blog contributions are to be summarized and compared. The method chosen for this purpose is a SWOT analysis as depicted below.



Figure 1: Components of the SWOT Analysis

The analysis regards internal strengths and weaknesses of AI, as well as external opportunities and threats which influence the ethical aspect of implementing the technology and consequently allows hypothesizing if ethical concerns connected to AI outweigh the opportunities it creates.

Strengths

The implementation of AI has the potential to greatly simplify different aspects of life. On the one hand this includes privately used AI applications, such as home assistants, chat bots or face recognition. On the other hand, the facilitating effect extends into the business world where AI increases economic efficiency and facilitates routine tasks, consequently improving motivation of employees. Additionally, new jobs may emerge in connection to AI. The overall versatility of AI – meaning its universal applicability in industries, businesses, and private lives – represents one of the central strengths of this technology. The implementation of AI to achieve said benefits can be deemed ethically acceptable.

Weaknesses

While the above-mentioned versatility of AI inevitably constitutes an advantage, it may also pose a threat to employment. The physical execution of tasks, as well as predicting and decision-making may soon be performed by AI technology producing results of superior quality. The possible debate to be had here is whether it is ethically tolerable to implement such technology and trade the provision of income for economic efficiency. An additional ethical concern originates from the ability of AI to make autonomous decisions based on the way it has been developed. The allocation of accountability for potential incidents or malfunctions requires debates. Further, the reliance on data input is the starting point for many ethical discussions concerning the invasion of user privacy.

Opportunities

The ubiquity of AI applications alongside their increasing popularity represents an opportunity for revenue generation through the production of AI solutions. One ethical aspect to be considered in this context is the motive for AI development. Although the sole objective of revenue generation cannot be deemed ethically questionable in itself, as it is the essential criterion of economic activity, it should be accompanied by adequate consciousness among creators regarding the associated responsibility. Producers and designers of AI need to recognize the impact of their work, which should be reflected in choosing those granted

access to the technology by objectively evaluating the degree to which their own competences meet the requirements necessary for AI production.

Threats

A substantial external threat to AI is the potential fraudulent access to data. The dependence on data for optimal functionality along with the constant connectivity of AI systems to the internet establish the ground for questioning the ethical acceptability of using AI. The lack of data safety and the possible subsequent repercussions of data misuse call into question the degree to which using or offering AI to consumers – be that in the context of businesses or private consumption – is ethically acceptable if awareness of this external threat exists.

Positives and Negatives behind AI – Summary

We suggest that a connection could be drawn between the internal and external component of the analysis in that the internal strengths are a prerequisite for creating external opportunities. Similarly, internal flaws of AI facilitate external interferences, therefore making the systems more prone to threats from the outside. The most significant problem may be found in the substantial trade-off between the positive properties of AI and the technology's negative ethical implications. Thus far, some of the positives seem to inherently entail inevitable, ethically debatable repercussions. We find this to be the common conclusion of our previous blog contributions. Solving issues such as the data safety and privacy aspect or the potential partial obsolescence of human workforce caused by AI technologies, as well as settling the debate on allocating responsibility for the actions of AI systems may be seen as measures to moderate above-mentioned repercussions. A universally recognized definition of the term ethically acceptable could be a suitable foundation for this approach. However, establishing this common understanding would in itself pose challenge due to a lack of uniform values.

Naturally, there are numerous aspects connected to AI, both positive and negative, that have not been mentioned in this series of blog contributions. Thus, some topics are left unaddressed and represent a ground for further academic and technical research and discussions.