

Team 3 Executive Summary

Artificial Intelligence: From Erica and Watson to future

Introduction

Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. According to our research, there are three stages in AI development. The first stage is Artificial Narrow Intelligence (ANI), and the other two stages are Artificial General intelligence (AGI) and Artificial Super intelligence (ASI). Although we have made progress in the AI development, we still stagnate at the first stage. The purpose of our project is to find those problems which exist in AI development or impede AI development, and give some suggestions to address these problems. In our executive summary, we summarize these problems in current AI development and give some recommendations for AI development as well as provide some future actions for some people who are interested in AI.

Discussion

Since AI could provide benefits to us, we should support the AI development. However, there are some problems in AI development. First, after studying AI development, we found that there are some technical obstacles in AI development. These obstacles not only exist in the hardware, but also appear in the software. Therefore, although AI has made a great progress since it appears in the world, AI development is still at the first stage. Before AI catch up with and over the human intelligence level, we still need to put many efforts to break through the software and hardware limitations. Second, with the development of artificial intelligence, AI also might have some negative impacts on economy and society. On the one hand, AI technologies could replace many human positions in the future causing unemployment. Therefore, people won't have discretionary income and will have less purchasing power to buy the products and services produced by the economy. As a result, there will be less and less demand, which will result in economic recession. On the other hand, with the development of AI, AI could raise some ethical questions, which will cause a few kinds of psychological threats to humans.

Recommendations

In order to address problems, we did some further research. According to our research, we give the following recommendations:

(1) Technologies obstacles include two issues, hardware and software. Regarding of hardware, we don' need to put more attention on it and its current development speed is ok. On the topic of software, it still doesn't have good methods to implement an AGI. Thus, three potential solutions are proposed in this paper. The first one is to simulate the human brine. The second one is biological evolution simulation and the third one is to make AI improve themselves.

(2) On the subject of the economic front, companies cannot just consider the decreases of labor costs in a short term, and then rapidly replace human positions with AI technologies in every field. They need to consider whole economic market in the long run.

(3) The AI development might result in some people who have a low education background lose their jobs. Therefore, the government should pay more attention on education, improve the degree and quality of education gradually, so that people whose jobs were replaced could adapt to the change and find other proper jobs.

(4) With the development of AI, both ethical and psychological topics are inevitable. Before we develop AI into higher stages, these issues should be addressed first so that we could develop AI in the right direction.

Future actions

For some people who are interested in AI, we give the following suggestions:

(1) Individuals should mentally support the AI development rather than resisting AI development because of the potential side effects. Individuals should value the positive impacts and try to find out a way to overcome the negative ones.

(2) Individuals could adopt and buy AI products since it would be the easiest way to provide the financial support to AI.