

Summary of Reading (How Human-Computer 'Superminds' Are Redefining the Future of Work)

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Introduction

Human beings are the creatures with the highest IQ on earth. While there is another existence with higher IQ which is a group of people. These human groups with collective intelligence are much more brilliant. The most important uses of computers are not likely to be in replacing humans, but in allowing people and computers to do things better together than alone.

Supermind is a group of individual human beings doing things together intelligently. It comes with various forms, for example community, democracy, market, and hierarchy. Superminds are the ones who possess the collective intelligence which is an ability to work that human beings would not be able to complete individually.

What is Intelligence

Intelligence is often referred to as the ability to accomplish targets and goals. Whether an object is intelligent or not, it can be dependent on what goals the observer has assigned to. With the earlier hypothesis, intelligence can be defined in two types: specialized intelligence and general intelligence.

Specialized Intelligence

Specialized intelligence is having the capability to attain particular goals in a designated environment. An intelligent individual will do everything to achieve its objective and target according to its own knowledge. It is "effectiveness" at achieving specific goals.

General Intelligence

General intelligence is having capability to attain a comprehensive range of diversified goals in diversified environments. An intelligent entity has to do well in learning how to do both specific kinds of tasks and a wide range of tasks. The meaning is similar to "versatility" or "adaptability."

Computer Roles

In today's world, computer roles in the organizations could be categorized into four different possibilities:

Tools: To enhance human's capability when humans lack it. Examples include spreadsheet and text-message platform.

Assistants: To assist humans without instructions given. Examples include auto spell-checks and recommendations in e-commerce websites.

Peers: To behave like a human colleague. Examples include automated program trading system and chatbot.

Managers: To act as a human manager to assign tasks and give instructions. Examples include traffic lights and automated call routers.

Human beings have the most control when the computer acts as a tool, followed by assistant, peer, and finally having the least control when computer acts as a manager. The level of control that an organization is willing to give to the computers is very much dependent on the business strategy of the organization, and the receptiveness of the organization culture and work group culture in the company. Our team believes that as long as the computers are able to provide benefit to the organization and to reduce humans' unnecessary work activities, the management should take into consideration the usage of technologies into the organization.

How Computers Help Humans To Be Smarter

Looking towards the future, how can computers be used to contribute to increasing the capability and efficiency of Superminds? In general, a Supermind must have at least some of five cognitive processes, which are to **create** possibilities, **decide** on the right actions to take, **sense** what is going on externally, **remember** ideas from the past, and **learn** from past experience. Computers can be seen as a conduit to facilitate these actions; in ways that can make the Superminds smarter.

Create: Computers can be used as a communication tool to facilitate large groups of people to think and work collectively. The fact that computers can bring together large groups of people opens the door for new options and possibilities to arise

Decide: The act of deciding requires evaluating all possibilities, and new technologies can improve it by involving more people, and people with more varied expertise in the process of evaluation.

Sense: In order to create robust plans, it is important to be able to sense one's external surroundings. Technology can improve Superminds in this process through big data and data analytics. Thus, most of the quantitative work involved with strategic planning can be performed by computers, leaving people to handle the more qualitative process.

Remember: Computers can also help Superminds remember good ideas that were made in similar situations. Generic strategies can be proposed using software assistants, which can then provide templates to facilitate such strategies.

Learn: A system that is used over a long period can learn, and thus aiding Superminds to learn and grow from their own experiences as well. Similarly, systems can 'learn' from human evaluation of certain inputs and slowly use what it learned to automate more and more of the work previously done by humans.

In the long run, we can see a workflow that involves both computers and humans, creating a 'cyber-human strategy machine', where computers will do more work, but requires people to be involved in parts of the process.

Reflection

We often overestimated the potential of artificial intelligence because it is so easy to imagine computers, like robots in movies, to be as intelligent as people. Unfortunately, it is considerably harder to create such machines than to imagine them. In fact, no computers today possess the equivalent standard of general intelligence of any five-year-old child. Assuming there comes a day when computers can do everything that people can do, even better and cheaper, there will always be a desire for humans to do some things simply because they are humans. For example, watching soccer match with actual soccer players or even getting a haircut by a hairdresser.

All in all, we should not be thinking about what jobs computers are going to take away from us, but what we and computers can do collectively as Superminds that could have not been done before.