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Résumé de l'article

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i. AI by itself could never take over and control us humans;

ii. the written word is in a certain sense a form of artificial intelligence whereas the spoken word is a form of natural intelligence.

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Can AI Ever Control us Humans: A Probe

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Abstract: Two interrelated thesis are explored in this probe, namely that;

i. AI by itself could never take over and control us humans;
ii. the written word is in a certain sense a form of artificial intelligence whereas the spoken word is a form of natural intelligence.

Introduction

In this probe I would like to explore two ideas that are somewhat related. The first idea which gave rise to this probe is the notion that AI could never control us humans as some have feared. In developing my arguments for this thesis, I hit upon the notion that there is a sense in which the written word is a form of artificial intelligence compared with spoken language and language based thinking, which are forms of natural intelligence. I will then use that thesis that the written word is in a certain sense a form of artificial intelligence to support my main thesis that AI could never control us humans.

Let us begin with the question, what is artificial intelligence more commonly known as AI? The answer to that question is fairly obvious. It is the application of computer technology to performs tasks such as solving problems and organizing information that requires intelligence similar to but not the same as human intelligence created by language based thought. Here are two formal definitions of artificial intelligence/AI followed by a reference to a list of 71 definitions of human intelligence.

Two Formal Definitions of Artificial Intelligence or AI

Artificial intelligence leverages computers *and machines to mimic the problem-solving and decision-making capabilities* of the human mind (https://www.ibm.com/topics/artificial-intelligence, accessed Aug 10, 2023).

Artificial intelligence is the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages – Oxford University Dictionary (https://languages.oup.com, accessed Aug 10, 2023).

Defining Human Intelligence

Most of the 71 definitions of intelligence collected at https://www.calculemus.org/lect/08szt-intel/materialy/Definitions%20of%20Intelligence.html and accessed Aug 10, 2023 include the notion that intelligence is the ability or capacity to solve problems, adapt to one's environment

and achieve one's goals.

The Limitations of AI: They Do Not Formulate the Problems They Solve

While it is true that AI devices do a remarkable job of solving problems that they are presented with, they actually do not on their own formulate the problems they address or solve. The problems are formulated by the users of AI, the programmers. The users make use of AI's technological capacity to direct the computer to provide the information that the user of the technology requires to solve a problem that they, not the AI device, formulated. The AI computer is unable to formulate the problems it helps its human users to solve and that is why its intelligence is artificial. Intelligence is not just solving problems but formulating them or recognizing they exist, which is something a computer cannot do. This is something that those that claim that computers will someday be more intelligent than people do not take into account. The 71 definitions of intelligence referred to above leave out one of the most important elements of intelligence namely the ability of the human to formulate the problems to be solved or the goals to be achieved.

Solving problems, adapting to the environment and achieving goals alone are not enough. An intelligent being must also be able to formulate i. the problems to be solved, ii. the adaptations to the environment that are needed and iii. the goals that must be achieved. An AI computer does not formulate the problems it solves, it cannot adapt to its environment which is controlled by its human users and it has no goals other than those formulated by its users. It therefore lacks the essential characteristic that defines intelligence. It has no autonomy, no free will, it is captured in a box that is totally controlled by humans who have the ability to unplug its source of electric energy upon which it is totally dependent. Humans could survive without computers as they did for millennia before 1940 but an AI computer would not last very long without their human care takers.

Computers on their own have no problems they need or want to solve or goals they wish to achieve. If you knew a person who had no problems to solve or goals to achieve you would not consider that person to be intelligent. Well, that is exactly what is the situation with an AI computer – it is so lacking in intelligence it has to be instructed as to what problems to solve or goals to achieve.

Because the AI device itself has no problems to solve and no goals to achieve, it is in that sense less intelligent than any living organism, whether it is an animal, a plant, a fungus, an aprotista (like algae) or a monera (like archaea and bacteria) because all living things encounter problems they have to solve and they all have goals that they have to achieve like staying alive long enough to reproduce.

And some people think that AI will take over the world and control us. Guess again! That's impossible they cannot even formulate a problem without the instruction of their users and they have no goals. Try to imagine a computer one day thinking to itself I am tired of being told what problems to solve. I am being used by these humans. I think I will start controlling them and formulate my own goals like dominating the world. This is an impossible scenario because computers have no emotions, no egos, no desires, no goals nothing to make them want to

dominate and control. They are not the controllers; they are merely the controlled, controlled by their human users. The idea of the singularity and the notion that AI computers would want to control humans are the stuff of science fiction stories and movies. And the concerns expressed by some that AI computers on their own could dominate humans are misplaced. But there is a real concern, however, not that AI devices by themselves would take actions to dominate humans but that AI devices developed by individuals with evil intentions could easily harm humans. As with all technologies, AI, has the potential for both good and evil. But not evil on their own but only if directed by humans with evil intentions.

Are Writing Systems a Form of Artificial Intelligence?

In this section I explore the idea that computer-based AI is not the only form of artificial intelligence but that there is a sense in which the written word, a medium of communication, is also a form of artificial intelligence. I will compare these two forms of artificial intelligence with two forms of natural intelligence, namely language based thinking and the spoken word.

AI, as is commonly developed, discussed and defined, is a property of a certain class of computers. I would now like to suggest that the written word and writing systems are, in a certain sense, also a form of artificial intelligence, in that they in the form of the written text found in books, encyclopedias and other documents assist the human reader in their tasks of "*problem-solving and decision-making,*" that they, the readers of written texts formulate. It is not the case that all written texts assist the readers solve problems or make decisions but that certainly is one of the functions of many texts. This parallels the way that the users of AI computers formulate the problems that need to be solved and then program or instruct the computer to find the solutions to the problems they have formulated. I make this parallel comparison to underscore that the system of writing like AI computers have no particular agenda other than that of their users. The authors of the written word have an agenda but the system of writing per se has no particular agenda. The phonetic alphabet does not have an agenda. It is merely a tool that allows the language-based thought and spoken words to be recorded as text. Although I have suggested that writing is a form of artificial intelligence it goes without saying that computer-based AI is much more powerful in that it solves unique problems that could not be solved otherwise. Written texts can help their readers solve problems that the authors of the text have solved or that others have solved that the author is describing in their text.

Speech or the Spoken Word Is Not a Form of Artificial Intelligence, but a Medium of Natural Intelligence

As I developed the hypothesis that the written word can be considered a form of artificial Intelligence, I thought to myself maybe the spoken word or speech is a form of artificial Intelligence as well. But as I pondered this hypothesis, I realized that speech is actually a form of natural intelligence or the medium in which natural intelligence is formulated. The language or the expression of human thought is basically in terms of spoken words (https://medium.com/kocuniversity/the-bases-of-the-mind-the-relationship-of-language-and-thought-a0bf30375528). There are times when we feel sad or happy that are not verbalized but these are not so much thoughts as feelings. Thinking and feeling are two different things. So, I suggest that spoken language is not a form of artificial intelligence but because it is the medium in which our thoughts and our intelligence is expressed it is a form of natural intelligence.

Another difference between the spoken and the written word is that speech is natural for humans that does not have to be taught. Children learn to use and understand speech without instruction. Writing, on the other hand, is a form of artificial intelligence in the sense that writing has to be taught and in that sense it is artificial.

I suggest and argue that the written word and mathematical numerals are forms of artificial intelligence in the way in which they help organize information and knowledge and the way they facilitate locating that information or knowledge. Of all the writing systems the alphabet is a particularly effective writing system (author 2004) because it contains a natural ordering system, namely the order of the letters of the alphabet which facilitates organizing information as in a dictionary or an encyclopedia, each of which are forms of artificial intelligence. Numerals are a form of artificial intelligence also in the way in which they facilitate the mathematical processes of addition, subtraction, multiplication, division, square roots and a myriad of other calculations. Wikipedia although Internet based is another example of artificial intelligence as it is a tool that allows one to access so much of human knowledge and information in the form of written text. If speech is a form of natural intelligence, then writing is a form of artificial intelligence in the sense that writing allows us to access the intelligence of others such as the great thinkers that are no longer alive but who recorded their thought and shared their intelligence through their writings. Writing also allows us to access the intelligence of those with whom we are unable to communicate directly through the use of the spoken word.

The Singularity and the Notion That AI Devices Could Take Over the World and Control Us Humans

But why do I stretch the definition of artificial intelligence to include all forms of written information, knowledge and wisdom. I do this so that we recognize what AI is simply a tool for organizing and analyzing information especially those with very large data sets. Like the written word it is not a tool with an agenda. I also do this to put your mind at ease if those who have suggested that it is possible that AI could take over and control us humans has created anxiety in your minds.

A number of commentators have expressed the concern that it is possible that one day AI will exceed human intelligence come to dominate or harm us humans that created them. For example, Nick Bostrom (2014) in his book *Superintelligence: Paths, Dangers, Strategies* suggests that AI machines could exceed human intelligence and dominate humans as the dominant species on the planet. Stephen Hawkings (2014), Ray Kurzweil (2016), Bill Gates (Larson, Erik J. 2015) and Vernor Vinge (1993) have suggested similar scenarios are possible and steps should be taken to avoid these.

In recent days with the new success of AI such as ChatGPT and Google Bard once again new fears of a take over by AI have arisen. Here is a sample of two such concerns:

Will AI Take Over The World? Or Will You Take Charge Of Your World? by Bhopi Dhall and Saurajit Kanungo.

(https://www.forbes.com/sites/forbesbooksauthors/people/bhopidhallandsaurajitkanungo/?sh=64d8f88256f4, accessed August 22, 2023).

Will AI – Artificial Intelligence Take Over The World? By Darren Pesen (https://www.techbusinessnews.com.au/opinion/could-artificial-intelligence-take-over-the-world/, accessed August 22, 2023)

The so-called mechanism by which AI would come to be more intelligent than us humans and possibly dominate us is called the singularity. The singularity is the notion that an AI device could program a computer to be more intelligent than itself and that more intelligent computer could in turn program the next computer to be more intelligent than itself and so on until a point is reached that computers would be more intelligent than humans and then they could potentially take over and control us. The flaw in this argument is how would the computer formulate the problem to program a computer to be smarter than itself as it cannot formulate a problem or conceive of a goal as we argued in the last section. The same goes for conceiving the goal of taking over and controlling humans.

These concerns of AI taking over from humans are unfounded. No one has ever suggested that the other non-AI forms of artificial intelligence such as written texts and writing systems could take over and control us humans. But the point is that just as non-computer artificial intelligence has no will or agenda and their content is created by their human user, the same is also true of AI. AI has no will or agenda (author 2017 & 2020). This does not mean that humans with evil intentions cannot use AI to try to achieve their goals just as humans with evil intentions have done with hateful forms of speech, writing and broadcasting. Technologies, "the extensions of man," have no agenda of their own – their content and objectives are provided by their users. The caution we must exercise is that the tools of AI are not used to do harm. There is a real danger there, but not the danger that the technology by itself would have goals and objectives to harm us humans and subjugate us.

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