

It is not AI vs Humans; it is AI Assists Humans

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In 2017, AlphaGo, a Google artificial intelligence (AI) program that plays the board game Go, defeated the world's number 1 Go champion Ke Jie. The same fate happened with the chess grandmaster as well. AI is now defeating human champions at their own games. AI can also paint a car, compose music, win a quiz show, drive a car and do several other jobs which have been traditionally been jobs reserved for humans. Should humans be worried about AI dominance? A sizable proportion of people fear that the day will come when the entire human race will be ruled by machines, while others believe that AI will become a blessing to humans. A notable scholar Vernor Vinge has predicted that AI will surpass human intelligence soon; he called that moment *singularity* (Vinge, 1993). On the other hand, several studies have shown that AI can never beat human intelligence. AI instead will assist humans and make life easier.

In 2016, Weber Shandwick and KRC Research surveyed 2,100 adult internet users in Brazil, Canada, China, the UK and the US. The survey gives us insight on what people perceive about the benefits of AI. They asked the participants about their perception of AI and how AI can benefit humans. Participants had numerous options available. Figure 1 depicts some of the relevant statistics from their study. It can be interpreted from Figure 1 that most respondents think AI will assist humans in several ways. Many participants agreed that AI can do laborious and dangerous jobs for humans. They also think that this opportunity will provide more time for humans to pursue other activities. More than half of them agreed that we will be able to utilize our natural resources better with AI assistance. Product and services will be more convenient and have greater access, according to the participants' perception. These opinions have a great significance in understanding people's beliefs about AI.



Figure 1: Perceived Benefits of AI (www.eMarketer.com, 2016)

But why can AI not surpass human intelligence? To answer this question, first, the limitations of AI must be discussed. There are certain tasks that AI cannot do, but humans can. The abilities of machines transcend in some areas, even surpassing humans, such as compiling large numbers, storing petabytes of data, fast scanning, heavy lifting etc. On the contrary, machines face difficulties imitating certain tasks that humans can perform rather easily. This contradiction is called Moravec's paradox (Moravec, 1988). For example, as stated by Song

(2018) in his paper *Machine vs Human: Similarities and Differences*, “distinguishing between cats and dogs, an easy task even for children, has until recently been rather difficult for computers”. Similarly, “simple tasks such as casual walking, which constitute innate ability in humans, are rather difficult for machines to imitate” (Song, 2018). These illustrations prove that AI machines are not matured enough or rather incapable to compete with certain human abilities.

Second, machines cannot dream. They lack creativity, arts and literature, whereas humans are creative because they can innovate. Humans can find unconventional approaches to a specific problem where a machine fails. Humans also consider ethics while making decisions (Gauglitz, 2019). Therefore, a machine cannot be a scientist or an author, rather it can be a technician or a content writer. Because to become a scientist, one needs to invent. To be an author one needs to produce a well-crafted article. As stated earlier, machines do not have these abilities. In 1891, Georg Cantor proved that certain non-computable components in self-referential consciousness that humans have cannot be duplicated by machines (Song, 2018). When it comes to handling complex brainstorming tasks, such as writing an algorithm, resolving conflicts, persuade customers etc., humans have the advantage. AI is less efficient than humans for more complex jobs which involves richer language processing or delivering dialogues (Johnston, 2017). Humans have their experiences; with that, they can detect minute deflections from the usual norm and can look far beyond a given “historical data set”. This ability makes humans superior to AI (Gauglitz, 2019).

According to Gauglitz (2019), “AI requires a humongous amount of pre-recorded data to learn something with a success rate comparable to that of humans (child or expert) with far less experience than the AI machine”. AI cannot answer a question if there are no previous historical records. Whereas humans have common sense, they can manage unforeseen situations. Humans

can build relationships, have empathy, feelings or emotions. Computers can beat humans in big data handling and computation. However, to beat humans they first need to learn from those data, whereas humans can perceive without previous experiences.

Machines are hackable, so they can be used for evil purposes also. Attempts to build autonomous killing machines are underway by militaries around the world. There is a serious concern about these robots. What if they fell into the enemy's hand? What if terrorists get access to these sophisticated machines? What if these robots malfunctioned? That is why AI should be always supervised and control by humans, so that if anything wrong happened humans can prevent it. Machines should not be given full control on their own, they should need human inputs in order to function. AI should take human permission while performing tasks that may have serious consequences.

Though humans are superior to AI and will remain forever, they will still need AI to excel. There is still a limitation on human computation power, data storage and processing power. Humans cannot learn many different languages; they have limited skillset. This is where AI can assist humans. For instance, while detecting a tumor is cancerous or not, human pathologists have to go through enormous data gathered from X-ray, CT and MRI scans results. They also need to examine the histopathology records of the patient. It will take several days or months if it is done by humans. But with AI these diagnoses can be done instantly with less cost (Kudo, 2018). Humans lose their cognitive and physical abilities while growing old. AI is being used to design advanced assistive technologies for older adults (Pollack, 2019). It is possible to augment human brainpower via a computer. AI may help human pathologists to diagnose more accurately, as a computer can scan millions of records at a time. For deep space missions, where humans cannot go first, autonomous rovers and satellites contribute significantly to explore and

discover new worlds which in turn save precious human lives. Without the advancement of AI, it would not be possible to reach Mars. The concern that autonomous cars could snatch the jobs of thousands of car drivers around the world does not take account of lives that these cars could save lives from accidents that occurred due to human errors. Moreover, AI cars might need human supervision for an added layer of precaution. For example, airplane pilots often use autopilot software while flying, but an airplane does not run entirely on autopilot. There is no scarcity of jobs for airplane pilots. Autopilot just made a pilot's job easier; it is meant to assist a pilot and not to replace him.

So, there is no conflict between AI and humans. Yes, it is true, with the adoption of AI, more jobs will be done by machines. Figure-1 also suggests this concern. But AI will also create numerous new jobs that were never created before. Those jobs will be less labor-intensive which will ultimately make human life easier. For example, the jobs of call center executives can be handled by modern AI chatbots. However, hard-to-recognize speech inputs or the audios which cut off in the middle will not be interpreted by AI. Human executives can not only assist AI to decode that but also can take higher-level decisions, such as how to make the conversation flow more interactively, or what is the best way to give an effective response (Johnston, 2017). Perhaps the best solution is to combine both humans assisting AI and AI assisting humans, so the caller never feels that he is out of sync while talking to a customer care executive. The experience should be like the caller did not recognize that he just talked to a robot but got all the information he needs.

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