

# [One intelligence is a means through which computers,](https://assignbuster.com/one-intelligence-is-a-means-through-which-computers/)

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One of the characteristics of a human being that distinguishes it from other types of creatures is that human beings have the ability of understanding, applying knowledge as well as improving their skills. This is an aspect that has played a crucial role in the evolution and development of human beings.

However, according to the belief of most, the technological advancement that has been experienced over the last few years is capable of creating superintelligence that can threaten the existence of human beings. Since the invention of machines or computers, there has been an exponential growth of performing tasks. People have developed powers of computer systems in relation to their areas of work, increasing the speed at which tasks are performed as well as a reduction in size with respect to time (Poole, Mackworth & Goebel, 1998). This essay paper will provide a detailed elaboration of Artificial Intelligence (AI) covering its various aspects. What AI Currently is and what it is not            According to the founding father of artificial intelligence i. e.

John McCarthy, AI is defined as the science and engineering through which intelligent machines especially the intelligent computers are made (Fulcher, 2008). In other words, artificial intelligence is a means through which computers, computer-controlled robots or any other software that can think intelligently can be made just in the same way that human beings think. The aspect of AI can be achieved through conducting a study on how the brain of human beings think, how humans learn and make decisions as they try to obtain solutions to problems that they face on a daily basis. Besides, the outcome of their study can also be used to engage in a study on the basis of developing the intelligent software systems.

Today, people have confused artificial intelligence with Machine Learning (ML). However, the two concepts are completely different from each other even though the perception that they both have can lead to that confusion. The difference between the two is that AI describes the concept through which machines that are under use are able to carry out certain tasks in a manner that would be considered to be smart.

However, on the other hand, Machine Learning is the application of AI on the basis of the idea that the machines should be granted access to data thereby giving them an opportunity to learn on their own. Current Application of Artificial Intelligence             Even though machines have not yet taken over, they are however speeding up various processes. This, therefore, means that the use of AI can be applied in various sectors including engineering and business among other areas such as security. In the security department, for instance, artificial intelligence can be applied in Cyber-attacks as a defence mechanism against potential hackers and the errors or failures in software (Russell, Norvig, Canny, Malik & Edwards, 2003). It is public knowledge that the software which is responsible for powering the computers that we use on a daily basis are subject to error as well as security vulnerability thus can easily be exploited by humans. Artificial intelligence has, therefore, come to the rescue of our systems as it can be applied to search out and repair such vulnerabilities and errors and also to act as a defence to the incoming attacks from the malicious hackers. Within security still, AI can be applied in the prevention of crimes.

One of eth most commonly known example is the Comp Stat (Computer Statistics) New York Police Department which has been often called upon as artificial intelligence. It was first implemented in 1995 and since then it has successfully managed the organizations while depending on the underlying tools. AI-powered crime tools together with the predictive analytics have made significant progress in dealing with criminal and security issues since the invention time.             Other than the department of security, one of the ways through which Artificial Intelligence is used in our daily lives is the smart car.

Self-driving is one of the most familiar areas of application which has increasingly gained popularity in the current generation. In fact, today some of the high-end vehicles have come with AI parking systems. According to one of the recent posts by The Washing, it was reported that Google Company is developing an algorithm which will enable cars to learn how to drive just as the younger self of an individual. This will be granted with no fear of the instructor.

Besides, the Google’s AI has also learned to play some of the simple computer games that are available. Another crucial area of application for Artificial Intelligence is the detection of fraud. According to studies that have been conducted by various firms, it has been found that financial service companies have gained interest in the use of Artificial Intelligence. Anybody that is in possession of a credit card or bank card is more likely to receive fraud messages of any kind. This can either be sent through a normal text message or through an email or even a phone call.

Most high street banks have offered such kinds of services over a long duration to date. In this instance, AI can be used to facilitate the blockage of such malicious activities in an individual’s account. Through AI, one will be asked for permission for the authorization of the transaction or simply a decline.             Finally, in business, AI can also be used to facilitate customer service (Russell, Norvig, Canny, Malik & Edwards, 2003).

Today, many websites offer the customer an opportunity to communicate with customer support through chats. This is one of the most ubiquitous applications that are offered by the Artificial Intelligence. Most of these are automated responders. However, some are capable of extracting information from their site and present to the customer as requested. This is, therefore, another crucial way through which AI has played an instrumental role in enabling business activities to proceed without interruption with or without the presence of a customer support. Current Limitations of Artificial Intelligence             Even though the use of Artificial Intelligence can be applied in various sectors, the concept can, however, be associated with many disadvantages in the process.

One of the most fundamental limitations that can be linked with AI is that they require close supervision (Michael, 2005). In as much as the algorithms such as the machine operate, however, an individual still has to operate them by turning the ignition. Besides, the market is still needed to engage in the planning, designing and running the market campaign. AI has to be fed with all the new information that is required so as they can in the first place. In this type of supervision, there is a difference from how human beings learn naturally. This is thus believed to be one of the biggest limitations that AI has especially when it comes to the creation of human-like AIs.

One of the examples that can explain the need for supervisions by AI is the chatbox “ Tay” that is modelled to speak like a teenage girl. The idea behind it was to be intelligent by learning conversation the conversations that she had online with humans. The second disadvantage that is experienced from the use of Artificial Intelligence is the cost of maintenance which is known to be very high. Just like any other form of technology, AI can as well have a significant cost of purchase and maintenance. Besides, a careful consideration should be made on the return on investments before a decision to purchase and implement the system is made. In general, it is expensive to purchase, install and implement AI products so as to successfully begin operating within the business. Therefore, their use calls for a heavy investment the department. Finally, another limitation of artificial intelligence is their lack of creativity.

For a successful marketing campaign, creativity remains to be one of the most fundamental concepts. AI machines do not have the ability to creatively think like real humans. As opposed to machines, humans are able to think and feel. This, therefore, is an aspect that is in most cases guiding their way of making decisions. However, when it comes to the machines, they lack the originality and creativity that humans have. This, therefore, is a disadvantage as humans are still needed for the completion of the system. Benefits of Using Artificial Intelligence             As provided earlier in this discussion, the use of artificial intelligence is becoming more common. This is certainly associated with a number of benefits both to the employer and the employees.

One of the benefits of the use of AI in the various organizations is that it encourages a healthy competition between members of the staff (Villa, Ceroni, Bagstad, Johnson & Krivov, 2009). According to study researchers, teams have continuously gotten on board with Artificial Intelligence. This is whether it promotes the cognitive efforts of the department or partnering with the rewards of the company. For instance, the members of the staff can be rewarded for having effectively completed their tasks. Besides, the personalized learning is also real plus the attraction of the members of the staff. The second benefit that can be associated with the application of the use of Artificial Intelligence in business is that it helps in embracing innovation. It is of crucial importance to embrace the new technology of AI rather than to rebel against it. For instance, the rise of robots has presented a perfect opportunity for upskilling the workforce thereby providing the employees with a chance and freedom to upgrade their work skills.

This is due to the fact that robots can take the strain of such tasks that were initially restrictive and time-consuming. From an individual opinion, I think this is a benefit that can be termed as self-explanatory as it has a direct influence on the members of the staff of an organization. A transformative workplace is another benefit that can be directly linked to the adoption of the use of artificial intelligence. According to a prediction by IDC, by 2025, 1 trillion networked devices shall have been hooked up worldwide (Vas, 2009).

Therefore, the rise of AI will also have a commendable benefit in the manner that business operations will be conducted. Soon each and every business will be in a position to suggest efficiency in savings, adjusting lights, temperatures as well as the acoustics in the meeting and conference rooms on the basis of occupancy and agenda. This will, therefore, lead to a redesign of the offices as they are known leading to the transformation of the respective places of works for the organizations. Finally, the use of AI can also be beneficial especially when it comes to the measurements of the huge data.

For instance, the revolutionary machines with the ability to perform a deep content analysis as well as the evidence-based reasoning are crucial in accelerating and improving decisions. Such machines are currently common with many companies. For instance, banks can artificial intelligence systems in making an analysis of the conditions of the market, the past decisions made by clients, the recent lives as well as all the available offerings. This step will be beneficial as it will allow for the making of more personal connections hence ensuring that great relationships with the clients are made as smaller details are left to the AI. Problems of using Artificial Intelligence             The invention and the use of artificial intelligence have been linked to various advantages and benefits in relation to security and promotion of products and the enhancement of services to customers by business firms. However, this technology can also be associated with many problems some of which are ethical.

One of the unethical issues that can be associated with the use of AI is unemployment. Evidently, the use of AI has squandered job opportunities for most individuals. For instance, an individual who would otherwise be employed as a customer service provider to the client by a given company may be rendered jobless since the invented robots can complete their duties.

Obviously, the society suffers a lot if most people do not have employment. They do not have to earn and thus cannot support their lives as they are not able to afford the basic needs of life such as food, shelter and clothing among other needs as education to their families. The second problem that can be associated with the use of artificial intelligence is artificial stupidity (Nilsson, 2014). In this instance, it is of paramount importance to obtain ways through which to guard against mistakes. Whether human or machine, intelligence is known to be coming from learning.

Systems have a training phase in which they can learn the detection of patterns and act in accordance with the input. Once a full training has been completed, the machine then goes into a test phase where more examples are provided so as to see how the machine performs. The system can be fooled in the process in a manner that humans cannot. For example, in a case of a random pattern, the machine is likely to see things that do not exist. It is therefore important to ensure that the machine can perform as planned before humans can rely on the AI.

Finally, another problem that can be experienced as a result of using artificial intelligence is security. This involves the question of how possibly the Artificial Intelligence can be kept safe from adversaries. Under this, as a technology continues to be more powerful, the more it is likely to be used for other nefarious and the good reasons. This does not just apply to robots that have been produced to serve the purpose of replacing humans, it, however, does the same to the AI systems which are likely to cause damage. This is due to the fact that not all the fights will be done on the battlegrounds but the cybersecurity will also be included.

Conclusion             In general, as provided in the discussion paper, it is evident that Artificial Intelligence is one of the most important technologies of the current regime. This is due to the fact that it can be linked to numerous benefits such as improving the respective work organization among other sectors. For instance, as discussed, AI is important in ensuring security by preventing malicious attacks by computers. Besides, it can also play a role in preventing fraud especially in the companies that deal with financial issues.

However, despite all the benefits and advantages, it is also obvious that AI has certain limitations. For instance, it can lead to a society that lacks job opportunities. This is an aspect that can adversely impact an area. It is therefore advisable to consider all the aspects of AI before a decision is reached to implement it.    ReferencesFulcher, J. (2008).

Computational intelligence: an introduction. In Computational intelligence: a compendium (pp. 3-78). Springer, Berlin, Heidelberg.

Michael, N. (2005). Artificial intelligence a guide to intelligent systems.

Nilsson, N. J. (2014). Principles of artificial intelligence. Morgan Kaufmann. Poole, D., Mackworth, A.

, & Goebel, R. (1998). Computational intelligence: a logical approach.

Russell, S. J., Norvig, P., Canny, J. F., Malik, J. M.

, & Edwards, D. D. (2003). Artificial intelligence: a modern approach (Vol. 2, No. 9). Upper Saddle River: Prentice hall. Vas, P.

(2009). Artificial-intelligence-based electrical machines and drives: application of fuzzy, neural, fuzzy-neural, and genetic-algorithm-based techniques (Vol. 45). Oxford university press. Villa, F., Ceroni, M.

, Bagstad, K., Johnson, G., & Krivov, S. (2009, September). ARIES (Artificial Intelligence for Ecosystem Services): A new tool for ecosystem services assessment, planning, and valuation. In 11th International BIOECON Conference.