The Ai Revolution: Transforming Industries & Socities

Aswathi Babu
Navajyothi College, Cherupuzha, Kannur

Aney Suphalamma N Mathew
HOD, Assistant Professor,Navajyothi College, Cherupuzha, Kannur

Simna Simon
Assistant Professor, Navajyothi College, Cherupuzha, Kannur

Honey Johnson
Assistant Professor, Navajyothi College, Cherupuzha, Kannur

ARTICLE DETAILS	ABSTRACT
Research Paper **Keywords:** *Gender-biased Legislation, Legal Terrorism, Systematic Harassment*	Creating machines or automatic systems that can perform intelligent like activities is the goal of Artificial Intelligence (AI) studies. All these tasks call for language skills, knowledge, understanding, thinking skills, skills of acquiring knowledge and perceptive skills. Artificial Intelligence is an effort to modeled human thought process and ways of solving problems by developing intelligently used software programs to mimic the human brain. The primary objectives of AI research are as follows: Decision making criterion is the capability of making proper decisions by robots. The methodology of organizing and presenting information in a form suitable for computer analysis and utilization is called knowledge representation. Implementation focuses on the capacity to devise tactics of achieving goals which are strategies and plans of methods. Knowledge is the capability of a machine to update the results achieved within a particular field when progressing through its performance. Having basic understanding about Natural language processing (NLP).

INTRODUCTION

Artificial Intelligence is a process of programming a computer, robot or a product to behave like a smarter being. Artificial Intelligence examines how the human brain decides and learns to tackle problems in Artificial Intelligence. Finally, this research develops intelligent software systems. This component incorporates computer skills which are in relation to the general human endowment, including learning, problem solving, perception and linguistic intelligence. To clarify, knowledge representation, reasoning, planning, learning, natural language interface, realization, such as object recognition and object control, and object motion are the aims of AI inquiry. The broad intelligence field has more of long term goals set for it. These involve statistical methods, computational intelligence and traditional programming.

In the course of the study of AI concerning search and optimization, artificial neural networks and probabilistic and statistical techniques based on probability and economies are utilized. Various academic discipline such as Physics, Mathematics, Psychology, Linguistics, Philosophy and so on are inclined to Computer Science. Application of AI include games, natural language processing, expert systems, voice recognition, vision systems, handwriting recognition and so on.

DEFINITION

Because 'the ability to learn and solve problems'. This is the definition of intelligence. Artificial Intelligence as is defined is the duplication of the human mind with the use of machines. One's learning ability, planning ability, self-organization, nuanced motion and facial movement. Artificial Intelligence (AI) refers to a set of processes and methodologies that allow a digital computer or a computer controlled robot to perform functions that naturally require intelligence. It is used to refer to the challenge of designing systems that exhibit the endowment that defines human beings, such capabilities as reasoning, understanding meaning, learning from experiences and capability to generalize. Since the introduction of the digital computer in the 1940 'it has been demonstrated that computers are capable of carrying out tasks that are very tedious and specialized or encompassing with high levels of efficiency if programmed properly.

Still, even with tremendous advances in computer technology the ability to adapt as is demonstrated in Figure 6 across areas or in activities requiring vast corpuses of common knowledge has not been mimicked by software. Nonetheless, there are programs that asserted the performance levels of human expert and professional in the accomplishment of certain tasks. Hence, artificial intelligence in this

limited context can be present in many paraphernalia such as voice and handwriting recognition, proactivity of web search tools or medical diagnoses. According to psychologist, human intelligence is not one attribute, but a collection of several skills. The following aspects of intelligence have been the main focus of AI research: Communicative practices, acquisition, cognition, thinking, intelligence and seeing.

John McCarthy

John McCarthy was an American Computer and Cognitive Scientist born on September 4 1927 and died on October, 24, 2011. In the development of Artificial Intelligence one of the earliest advocates was McCarthy. He was a co-author of the paper that created the Lisp Programming Language family, promoted time and shared garbage collection, influenced greatly the ALGOL computer language and is credited with the coining of the term 'Artificial Intelligence' (AI). Renamed for simulation calculus, circumscription, Lisp and artificial intelligence. McCarthy attended Stanford University for most of his work life. He was awarded many honors and accolades and has been honored with the Kyoto Prize, the United States National Medal of Science and the 1971 Turing Award for this work in the creation of artificial intelligence.

TURING TEST

The Turing test is a kind of experimental approach employed in Artificial Intelligence (AI) for the purpose of evaluation of capability of a computer to think like human brain. It has been named after an English computer scientists, cryptanalyst, mathematician and theoretical biologist named Alan Turing who came up with the Turing Test. For a computer, Turing proposed that it should be allowed to exhibit human reactions in some contexts and it would be argued to possess artificial intelligence. To offer the opportunity for the original Turing Test, three terminals are required and none of those terminals must be physically connected in any way to the other two. There are two human controlled terminals and one which is operated by a computer. During one part of the test, one of the humans reads the questions out loud, while the computer and the third person are the ones answering. In a specific area of study, the questioner follows a specific format and context in which to question the respondents. The questioner is then asked to decide which respondent was a computer and which a human after a fixed time or number of questions. The test is given several times. Since for the questioner the computer is 'as human' as the respondent, it is accepted to have artificial intelligence if the questioner answers right in the test trials equal or less than half of them.

FIRST AUTONOMOUS ROBOT

SHAKEY

The first self-choreographed practically mobile robot in history that can and will move, act and sometimes even take quick decisions which are reminiscent of a human's. Stemming from SRI researchers, Shakey was at the center of controversy of marrying AI and robotics. It was also suggesting great potential for robotics. We are grateful to Shakey for driving countless changes in society; self-driving cars, smart phones, Roomba and even Global Positioning Systems (GPS). It is interesting to know that the mobile all' purpose robot that could reason out about its actions was Shakey the Robot. While other robots would have to be taught on each step of completing a somewhat complex task, Shakey could analyze command right down to its fundamental components all on its own. By its nature, the project was attempting to combine natural language processing, computer vision and robotics research. The result was that it became the first attempt to pair movement with a form of thinking. Before making its way to the public, Shakey was developed at the Stanford Research Institute's Artificial Intelligence Centre or SRI International. Shakey is a massive box mounted on wheels with a TV camera, a radio link aerial, and detectors and bumpers so that Shakey can look at the world televisionically and work out how to complete a task a user has started. This is done by completing an object, not engaging in it, and reasoning out an endpoint to complete the task. Some of the project findings that stands out include the visible graph approach, the Hough transform and the A* search algorithm.Shakey retired from service after introducing a new concept in artificial intelligence and robotics, today he resides at the Computer History Museum in Mountain View, California.In 2004 it was honored by the IEEE as a Milestone in Electrical Engineering and Computing and was appropriately inducted into the Robot Hall of Fame, Carnegie Mellon University.

SOPHIA

Sophia is a social humanoid robot that was developed through Hanson Robotics Company which is based in Hong Kong. Sophia was activated on February 14, 2016, and became public on the South by Southwest (SXSW) festival in Austin, Texas in mid-March the same year. Sophia has been involved in so many high end interviews and being reported in so many media all over the globe. Sophia was the first robot to be awarded citizenship in any country when in October of 2017 the Kingdom of Saudi Arabia gave her citizenship. Sophia earned the first non-human title from the United Nations in November 2017 when she was named the first UNDP Innovation Champion. Ironically, the inaugural run through of Sophia occurred on the 14th of February, 2026. Currently components include; OpenCog

, an AI that can reason broadly and has a chart system as well as scripting tools as the components of Sophia. Sophia can answer questions and make simple conversation on certain designated topics (like the weather), and move and make human-like facial expressions. Sophia is 'designed to get smarter over time' and uses speech recognition technology from Alphabet which is google's parent company. I will also note that the audio version of CereProc also contains the text-to-speech engine that enables It to synthesize speech as well as sing. The firm that designed the intelligence software for Sophia is Hanson Robotics. To be prepared for better responses in the future, the AI program investigating the conversation and collecting information.

Sophia gets information about its surrounding world visually with the help of input received by computers with cameras located inside its eyes. They have the capability to recognize individuals, sustain gaze and track faces. By using a natural language subsystems, it can analyse speech and engage in converse. Sophia was endowed with functional legs and a capability to walk in January of 2018. CNBC has criticised Sophia for her 'lifelike skin' and for her ability to accurately replicate more than sixty human facial expressions. Hanson has designed Sophia to help crowds during things such as festivals, concerts, or even in parks, or when the elderly might need a good friend in some nursing homes. He has also said the robot, will one day attend to people in order to gain the so called soft skills. Sophia is advertised as a 'social robot' that can mimic social engagements and elicit people's feel good hormones, affection. At least nine other humanoid robot 'siblings' of Sophia Exist in the world and they were all manufactured by Hanson Robotics.Other Hanson Robots include Alice, Albert Einstein Hubo, BINA48, Han, Jules, Professor Einstein, Philip K. Dick Android and Zeno with Joey Chaos.With the backing of Python, Blockly and Raspberry PI, Hanson introduced 'Little Sophia' in 2019-20 which may help kids to learn programming. He has said that he wants the robot to become sociable enough over time to develop soft skills. Sophia is advertised as social robot that is designed to mimic interactions with people and produce feelings of affection in people. At least nine other humanoid robot 'siblings' of Sophia were developed by Hanson Robotics.Other Hanson Robots are Alice, Albert Einstein Hubo, BINA48, Han, Jules, Professor Einstein, Philip K. Dick Android, Zeno and Joey Chaos.With backing for Python, Blockly and Raspberry Pi, Hanson came out with 'Little Sophia' in 2019-20 to teach children how to code.

TYPES OF AI

Although there are many different kinds of artificial intelligence, there are primarily two methods of classification: line based strategies that include capabilities based and functional based.

Depending on Capabilities:

1.   ANI or Artificial Narrow Intelligence

Every kind of artificial intelligence that currently exists, including the most superior and lethal artificial intelligence ever created, belongs to this kind of AI. Artificial Intelligence (AI) systems fit for only one specific autonomous activity employing human-like solutions and reasoning capabilities are precisely called Artificial Narrow Intelligence. The major disadvantage of these robots is that they have very limited, or at most, a very narrow range of competencies because these robots are only capable of performing the task for which they have been programmed. These systems are classified into the indicated scheme as all the reactive and limited memory AI systems. ANI covers AI even in its highest form, self-taught AI under deep learning and machine learning.

2.   General Artificial Intelligence (AGI)

Artificial intelligence represents the ability of an AI agent to acquire data, apprehend it, move in the same way a human being would, and if necessary, make decisions. Training time will also be significantly decreased due to the identification of these systems' ability to train in multiple competencies apart from establishing relationships and making generalizations across multiple fields. AI systems will come as a package carrying our multifunctional ability hence making them akin to humans.

3.   Super Intelligent in Artificial Intelligence(ASI)

As for the notion that AGI will be the greatest type of intelligence on the planet when it is created, this gives the conclusion of AI research its probable pinnacle. Customers of ASI will have much superior performance in everything they perform since they'll have a significantly larger memory, faster data processing and analysis and decision making in the same instance alongside emulating human intelligence. The singularity is the status that will obtain when AGI and ASI come into existence. However, I want to add that even the concept of having such strong machines at our disposal seems to be quite tempting, these devices may pose a threat to our existence or, at least, quality of life .

It is hard to imagine what state our world will be when more advanced AI is created during the current time. Nevertheless, it suffices to note that what has been accomplished at this stage can be

observed as a mere beginning of artificial intelligence evolution. For those that have a negative outlook towards AI future, this means that it is not too late to ensure the safety of AI and it is slightly early to panicked about the singularity. Those who are anxious about what AI might become are reassured by the fact that we really have only scratched the surface.

Based on Functionally:

a.   Reactive Machines

These are the first kind of AI systems and as you can see they are able to do very little within the process. They mimic the function of human brain to respond in a certain manner to several factors. These computers do not have any memory based capabilities in it. This means that these machines cannot 'learn' – that is, these machines cannot employ what was learned in the past to influence their current functioning. These devices could only respond autonomously to a handful of inputs that were fed into the machines. Unfortunately, it is impossible for them to use memory as a way of making their operations better. Reactive systems of AI are for instance illustrated by the IBM Deep Blue, a machine that defeated chess grandmaster Gary Kasparov in 1997.

b.   Memory Limitations

A fully reactive machines along with the capability to learn from past data for judgment are called as the limited machines. This category of AI encompasses close to all the applications that are presently known. For a reference model for solving problems in the future, all modern AI systems with the help of deep learning are trained using huge amounts of training data stored in their memory. To name items it scans, for example, an AI for image recognition is being trained on hundreds of images and their corresponding labels. An AI when scans an image, it look at the training photos in order to understand the information in the image and label new images more accurately depending with the 'AI learning experience'. A narrow AI underneath is at the base of almost every current AI application, from chatbots and smart assistants to automated vehicles.

c.   The Theory of Mind

The following two forms of AI are at this time concepts or the prototypes, whereas the primary two are and have been used widely. Mental theory the next generation of AI systems or AI, is what researchers are working on right now. Depending on the level of AI theory of mind it will be able to assess the

wants, feelings, beliefs and mental states of the entities to which it is relating in order to gain insight into them. While artificial emotional intelligence is a relatively recent interest area and the focus of some of the most prominent AI researchers, the other fields of AI will need to advance as well in order to reach Theory of Mind level. This is because, for an AI system to capture human requirements, the systems have to peruse people as individual entities whose thoughts are caused by several events.

d.   Self-aware

This is the last stage of AI advancement, which is only possible at the present time. Self-aware AI is a concept in which AI is so similar to the human brain that it has been deemed self-aware. All the AI research carried out today has been aimed at developing this kind of AI, and such is still years or even centuries off. This kind of AI will also be able feel what people with whom it interacts are feeling, it will also have their own emotions, requirements and may also have their own beliefs and desiring. About this kind of AI, pessimists are also skeptical. The fact that advancing self-awareness can so enhance our society is evidence of its positive potential, not to mention the fact that it's had the same potential of causing disaster. This because, once an AI is self-aware, it will be able to think through terms like self-preservation which can either express a direct or implied message of the end of human kind. It could easily be of superior intelligence to any man and could easily plot how to enslave humanity. ANI, AGI and ASI are another classification of technology that is used more often in tech speak than the above categorization.

COMPONENTS OF AI

a.   Learning

Like people, computer programs learn in various approaches since they use different methodologies. BTW, the learning element of this platform is divided into a number of types in broader sense of this term, more specifically. The learning for AI takes place through the training which is a testing process that is one of the components of AI.

The solution remains applied for problem solving until it attains the intended results. In this way, the program stores all the activities that resulted in positive outcomes, and has their details stored in its memory to be taken up again the next time the computer faces a similar problem. The more specific component of AI is known as learning by vote, which refers to memorizing of individual items such as

vocabulary, foreign languages, problem-solving method, etc. It is then necessary to use the generalization method as a learning strategy that has been acquired.

•   Semi-Supervised Learning (SSL):

•   Unsupervised learning

•   Supervised learning

•   Reinforcement learning

•   Semi-Supervised Learning (SSL)

1.   Supervised Learning

The essence of the most famous type of machine learning – Supervised learning – is to teach various algorithms to describe the incoming data. It allows the algorithms of the program to show the data inputs in such a manner that relieves the program to produce the subsequent outputs with minimal errors. Supervised learningdifficulties include classification and regression. The several classed outputs used within these issues provide the problems with a quantity when one or more categories is considered. From here we can see the different types of supervised learning with reference to handwriting, gestures, faces, voice, and objects.

2.   Unsupervised Learning

Exploiting the unlabeled data is used in unsupervised learning to train the applications while in supervised learning the applications are trained using labeled data. Being less rigorous on the other hand, the unsupervised learning approach is a reliable method of displaying many unknown data characteristics and relationships that will allow for classification. Specifically, this type of learning called association problem and clustering, makes it possible for AI to ask the right questions. This platform lets the software model many data organizations further to seek the right question that brings out the abnormalities. Moreover, the association of this kind of learning might be useful to get more information on trends with regards to recently identified relational characteristics within a large database.

3.   Semi-Supervised Learning

It can be described as not requiring a large amount of supervisory control. In between the above mentioned Learning Approaches there is Semi-Supervised Learning Approach. This learning strategy is utilized not only by Artificial Intelligence when it is necessary to utilize more methodologies at the same time. Wherever the reference information needed to get to the solution is in a number of cases using this learning style it is either accurate or lacking. According to SSL it can readily access reference data in this solution and proposes the application of unsupervised learning to determine the nearest possible solution. Interestingly, SSL uses both labeled and unlabeled datasets. Thus it is possible that function of both data sets can be easily incorporated by AI for finding out the relation, pattern and structure associated with them. It is also aids to mitigate human bias according to the course of the process.

4. Reinforcement Learning

Much like a kind of dynamic learning, Reinforcement learning provides methods that enable systems to train the algorithms through punishment/reward systems. Reinforcement learning the algorithm come into contact with the many facets of the environment to get the answers. The language is punitive when the task of performing operations is not done well, and rewarding where the operations are well done. As such, the algorithm learns independently without human interaction and without any managerial or learning interference. Usually made up of the following three elements: in terms of actions, actions environment and action agent. The purpose of such learning process is to attempt to maximize the benefit and minimize the drawback in other to learn successfully.

b. Reasoning

Before the last fifty years, only people were capable of the art of reasoning. However, one of the things separating artificial intelligence from other systems is reasoning, which is differentiation. The rationale is for the platform to deduct sensible strategies based on the considerations in the given context. The difference is that in an instrument failure the answer to the problem is always the source of the mishap.Indeed, computers have been greatly successful via deductive interferences while programming. But reasoning always involve drawing of relevant conclusions from a situation when it is ongoing one.

c. Problems Solving

At its simplest level, it becomes clear that the ability of AI is to solve problems entails data, which that solution has to index. AI sees many cases being resolved on the platform, varying in different specialties. It is recognized that, most of the 'problem-solving' approaches are a part of artificial

intelligence that categorizes the questions into specific as well as broader ones. In other words, when a special purpose method is employed, the solution to a given problem is most often tailored to fit the situation, often exploiting certain characteristics available in the scenario in which a suggested problem is incorporated. A general purpose approach, on the other hand, offered a number of vivid topics to consider. Furthermore, AI has a problem-solving aspect that allows the incorporation of a step by step narrowing of the gap between any given objective and current status.

d.   Perception

The 'perception' of artificial intelligence involves assessment of any environment using the different sense organs, real or artificial. Further, the processes are internal and help the perceiver understand other scenes' properties and relations contained in suggested items. This analyze is often also elaborate as one and depending on the attitude proposed priority, even similar items may potentially provide a large amount of different looks at several occasions. The aspect of artificial intelligence that can currently be used to operate self-driving cars at moderate speed is perception. The initial robot to incorporate vision for recognition of many things and assembly of many artifacts was FREDDY.

e. Language Understanding

In other words, language comprises various system indicators which involve conventions to undergird their meaning. to support their meanings. It is astonishing that language understanding is one of the most used aspects in artificial intelligence, it uses specific linguistic features over many natural meanings such as overstatements. A human English the usage of which helps differentiate between different objects is among the most essential aspects of language. By the same token, artificial intelligence is developed to understand English; this is the most popular language spoken by humans. Thus, the platform leads to relations that can be easily understood by computers corresponding to different computer programs that are executed on them.

MACHINE LEARNING AND DEEP LEARNING

Deep Learning

A type of machine learning, deep learning assists computers in decision making; this as a result occurs in the way humans make decisions by emulating the patterns. Although it is impossible to list all the technologies that have been put into use in the development of self-driving cars, one of the most

important of them is deep learning. It would be highly useful for voice commands applications of consumer electronics, for instance, hands free speakers, television, tablet and phone. In recent years Deep learning has received much attention and for a good reason. It's creating things that some time ago people could only dream of. Categorization tasks are performed directly from images, texts, sound in deep learning of a computer model. As is the case with many applications, state-of-the-art accuracy is achievable by deep learning models, sometimes even being superior to human interlocutors. Using a large quantity of labeled data, and multiple and deeper neural network architectures to build the models are employed.

Machine Learning

As both a branch of computer science and an AI application, machine learning is about training a system to learn from data and achieve a desired goal or make a given decision while its number of errors is gradually decreasing. As for the core concept of data science, the machine learning in this field presupposes the use of optimization and statistical learning methods that help computers analyze patterns in datasets. Data mining is extracted by machine learning algorithms for studying historical patterns in data and to design future models. It has three major sections in the machine learning algorithm.

A Decision Process: Essentially, in classification or a prediction, a machine learning technique is expected to be employed. Of course, your algorithm will be estimating some pattern in the data given certain input data, which may be labeled or not.

An Error Function: The model prediction is evaluated using this tool. If examples are known, a function of error can make comparison in order to find out how accurate the model is.

A Model Optimization Process: Biases meanwhile are adjusted to decrease the disparity between the model estimate and the known example if the model c ores the training set better. Continuously, it will evaluate such and optimize the system in question to reach an accuracy level before the next evaluation and weights update.

DIFFERENCE BETWEEN MACHINE LEARNING AND DEEP LEARNING

This paper seeks to establish the differences between machine learning and deep learning as one of the most emerging topics in AI.

Notably, deep learning can be conceived as actually being a subfield of machine learning. Some scholars have used the terms interchangeably since deep learning is actually a subspecies of machine learning and functions in the same way. But it has various capabilities. The overall rudimentary of machine learning forms do still need input from a human, even though they do continue to improve more and more in the performance of this specific task as it recalculates on updated data. This means that an engineer must change something when an AI algorithm provides the wrong prediction. A deep learning model does not require a human input as this environment enables a network to perform a check on the possibility of a prediction made.

AI IN EVERYDAY LIFE

We can generalize these goals of the applying AI in the improvement of day-to-day functionality in two broad categories.

i)   Methodology/Software: Smart speakers, face identification for unlocking mobile phones employing picture recognition, and AI guided financial forgery detection are some of the real-life AI software applications. Most AI software do not necessarily need any additional hardware installations, but can be obtained just by downloading AI capable software from an internet retailer.

ii)   Implemented: These are some of the key realizations of the hardware aspect of artificial intelligence: the IOT, assembly line robots, drones and self-driving vehicles. This means the development of specific gizmos with AI functions.

APPLICATIONS OF AI

E-Commerce

Personalized Shopping: Recommendation engines are developed using artificial intelligence technologies to help you better interact with your clients. Their browsing history, preferences and interests are taken into consideration while making these suggestions. Customer's loyalty to your brand and your relationship with them are both enhanced by it.

Education: Despite being the area most impacted by human activity, artificial intelligence is also gradually starting to make inroads in this field. Even in the field of education, the gradual adoption of AI has improved faculty efficiency and allowed them to focus more on students rather than administrative or office tasks.

Voice Assistants: A student can obtain additional learning resources or support using Voice Assistants without even the instructor's or lecturer's direct participation. This lowers the expense of publishing temporary handbooks and make it simple to get answers to frequently asked topics.

Personalized Learning: AI technology can be used to create habits, lesson plans, reminders, study guides, flash notes, frequently of revision and other materials with ease. Hyper personalization techniques can also be used to monitor student's data in-depth.

Lifestyle

This is greatly defined and influenced by our lifestyle and the use artificial intelligence . Some of them are:

Autonomous Automobiles: Self-driving cars with machine learning algorithms used by Tesla, Audi, Volvo and Toyota to teach computers to have a human approach to operational viewpoints of driving in any climate and detecting different objects to avoid future impacts.

Recognition of faces: For enhanced security, convenient gadgets like our mobile phone, laptops and PCs employ facial recognition algorithms in that it detects faces through face filters. Other than everyday usage facial recognition is widely employed in other areas including security-related ones in various industries.

Navigation

On this research analyzing GPS technology, it has been found that consumers obtain precise, timely and comprehensive information in order to enhance safety.The technology employs convolutional neural networks and graph neural networks to estimate the number of lanes and different sorts of roads after road obstructions: a blend of components from the user's life are made easier. and act like people when it comes to driving in any kind of environment and detecting objects to prevent collisions.

Recognition of faces: In order to enable secure access, our favorite gadgets-such as mobile phone, laptops and PCs-use facial recognition algorithms by identifying and detecting faces using face filters. Facial recognition is a popular artificial intelligence application outside of personal use, especially in high security-related fields across multiple sectors.

Robotics

Use of artificial intelligence is also severally implemented in the various aspects of robotics. Robotics driven by artificial intelligence utilize updating to search for obstacles in their way and update the directions they need to take in seconds. It can be used in managing stocks, clearing offices and massive plantations and equipment, moving goods and merchandise in industries, hospitals and even in warehouses.

Human Resources

One of the types of lenitive bias sourcing is blind sourcing that is supported by artificial intelligence. Some apps can be analyzed based on certain criteria that can be determined by making use of machine learning tools. AI driven systems are able to scan jobs and the profiles of potential candidates and give the recruiter a feel of the talent base from which he has to choose.

Medical Care

There are several ways artificial intelligence is applied in the healthcare industry as will be discussed below. AI solutions are beginning to be used to develop sophisticated tools that can identify cancer tissues and diseases. In order to ensure early detection artificial intelligence can aid in the evaluation of lab and other medical information regarding he chronic illnesses. AI uses the knowledge of experienced doctors with regards to medication that is then supported by data.

Agriculture

Once again, the presence of defects and nutrient deficiencies in the soil is determined by artificial intelligence. AI can also locate weed growth area with the help of computer vision robotics and machine learning technologies. AI bots have the potential to help in farming where they are used to accomplish the work which humans can do in lesser quantity and in a shorter time than the bots.

ADVANTAGES

- **Decrease in Human Error**

One of the greatest successes accomplished by artificial intelligence is the capacity to reduce human mistakes. With the correct programming, no question but that a computer machine is immune from error, while human beings are well known to err sometimes. To reduce the opportunities for mistake and enhance the reliability and repeatability of a particular process, artificial intelligence utilizes a sequence

of algorithm to gather data that previously have been stored. Hence, it helps to solve hard problems which which requires computations to be made complicated activities that can be done.

- **Lower Risk**

It is a perfect advantage of artificial intelligence which is the same as mine. The AI robots can thus beat many dangerous qualities inherent in human beings and carry out risky operations such as mining of coal and oil, drilling in the deepest parts of the oceans.

- **Faster Decision-Making**

While humans are capable of making decisions they tend to do so more slowly than fully automated machines. When giving out a certain decision, there are several factors that humans ponder on, while in the case of machines they just follow commands and give us the results much quicker.

DISADVANTAGES

- **High cost of production**

Due to this we see ourselves forced to constantly reign ourselves to suit the social circumstances that exist because we live in a technologically advanced world. For that similar reason, a computer machine once requires hardware and software upgrades to software upgrades to meet the most recent specifications. Therefore, AI also require maintenance and most especially repair services, which are costly.

- **Laziness**

People are even becoming lazier owing to the increased development made on the Artificial Intelligence and robotics. If this continues for many years our future generations will be totally dependent on these machines leaving many unemployed and with serious health issues.

- **Lack of creativity**

AI's biggest weakness or limitation is that it cannot be creative. There is one technology which uses exclusively pre-loaded data and it's AI. However, it does not incorporate creativity from humans and thus adapts over time from this pre-fed data prior experiences.

CONCLUSION

Science and artificial intelligence are two components of life that regularly enthrall and amaze us with new ideas, topics, innovations, products, etc. While AI is not used as depicted in movies today, there are numerous large attempts being made to soon catch up and compete in the market such as the robots seen sometimes on television.

However, the development in industrial companies: and the hidden efforts. In this conclusion we revisit the definition of artificial intelligence, the divisions, applications, and changes in various fields etcIt should be noted that AI is not yet complete; what more is AI capable of doing for humanity in the future? Maybe it will be a society of robots at the very end of the future envisioned in the work.

REFERENCES

- https://cloud.google.com/learn/what-is-artificial-intelligence
- https://cloud.google.com/discover/ai-applications