

PROCESS AND PROGRESS OF ARTIFICIAL INTELLIGENCE

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What is Artificial Intelligence?

[1] It is defined as usage of artificial object like computer or any other machine to work with complex issue or problems. It is combination of physiology intelligence and a part of computer science, in computer sense, it is a ability of being reaching goals in world. It's Intelligence is capacity to Understand, think, imagine, memorizing taking choices and decisions from experiences. It is generally helps us to developing and advancing machines as if it do jobs of humans much more like humans and do all it in lesser time. So it is called as an Artificial Intelligence. Based on Philosophy of Artificial Intelligence it is divided into Strong AI and Weak AI. [2] Artificial engineering it is generally a way of constructing intelligent machines or like intelligent computer programs. it also refer to understand human intelligence by computers. But biological explanations or observations are not defined. [3] John McCarthy father of Artificial Intelligence said that engineering and a computer science knowledge to build a intelligent machines which work automatic for use of human and revolution . It even use logics and computer program in devices for automatic work of machines and it is used in biological applications, mathematical laws, and mechanical engineering. It depend on 4 categories like self awareness, reactive machines, theory of mind, limited memory.

History of Artificial Intelligence?

[4] At earlier, aspects like philosophy, tale and even imagination sketch a word called 'Artificial Intelligence'. And even many discoveries in electronics, aspects of engineering took a steppingstone for artificial intelligence, and this make an achievement like solving problems which leads to understand and analyse something new, exploring ourselves, and conclude and demonstrating programs which make skill in language , translating ,proving some theorem ,align ourselves with skills which build up a knowledge.[5] The two publisher named Peter Norvig and other man called Stuart Russel in the paper which published by them have suggested some ideas about artificial intelligence .on 1950 'Artificial intelligence' term is coined by John McCarthy, and thereby on year 1958 he invents LISP program. Hence the father of Artificial Intelligence is John McCarthy. George F Ludger explained about plan and policies of AI. Supervised type of machine learning has been described by Niklas Lavesson.[6] The history of Artificial Intelligence is started in 1956 when John McCarty told a term which is contributed to his subject in the conference in New Hampshire (Dartmouth college) .Actually the initial aim was to ambitious and does not proposed for what it actually told it will. Between 1960s and 1970s the Artificial Intelligence generally focussed on (expert system) or KBS. Expert systems are mainly focussed on medical diagnosis to molecular structure.

Growth of Artificial Intelligence?

[7]With development of internet, e-commerce, sensors and big data platform for information community, and even cyberspace AI has profoundly changed to new : AI 2.0 .this development

leads in creating New models: Internet Based, collaboration which helps in production and providing jobs in services for users. New means: smart manufacturing integrating human-machine, flexibility and virtualization. New form: intelligent manufacturing like ubiquitous interconnection, innovating in mass, cross-border integration. This new models, forms, and means are ultimate growth of Artificial Intelligence. [8] The ,4th industrial revolution is Artificial Intelligence. By using big data platform it transformed all industries around whole world. Basis of ‘computer system which programmed ‘help us to solve more precisely and technically the real -word problems than ‘computer system’. Many related Business related issues cannot be solved by deterministic approach in that circumstances Artificial Intelligence plays a key role. AI helps us to tackle problem which actually difficult in Business(recommend products, some marketing finding fraud in cards, insurance issues, and all other) by actual determined computer

Applications of AI in Healthcare?

[9]Generally, in health care most important of traditional machine studying is foretell some precise medicine, treatment should be given to succeed in treatment it is just called a Supervised learning. But later comes a complex part called Neutral network or as deep learning it is established since 1960s in healthcare field for 3 decades it help identifying whether a patient has, or will acquire certain disease or their symptoms. In deep learning they focuses in viewing images that is seen beyond that which cannot be perceived by naked eyes. Nowadays, most hospitals not following any manually noting and storing data, instead they start for Electronic health records(EHR) .AI generally important process for improving documentation is ‘voice recognition’. Generally AI provides many ways and approach for patient safety and provide them a affordable care through there work. It also work to enhance persons experience.[10]It generally enlarge opportunity in healthcare like generally many underdeveloped and developing countries no medical practitioner to help someone from undergoing unfair treatment.in such cases AI offer machines to do. Like performing x-rays to treat for tuberculosis. It works to improves the standard of services like AI help in Time management. Equipment which perform some healthcare facilities compared to humans which give a sufficient extra time. These helps in treatment and detection hence misdiagnosis are reduced. It focuses in advances Immunotherapy for cancer patients to get treated.it is way that help in identifying , visualizing and curing way for cancer. Artificial Intelligence improves the quality of services, many countries lack therapist and physicians for proper treatment hence AI uses of machines for diagnostics, Using X-rays, CT, MRI help in detecting in lesser time. [11]AI is extremely encouraging and developing hope even though it doesn’t cure all. It helps to identify and recognise and cure most of the patient with sufficient medicine and help them to live a self-reliant life .and also to get the life of the harnessing one to comfort zone with specific medicine.

AI in Manufacturing and Production?

[12] In this work Artificial intelligence describe in the way of (PdM) Predictive maintenance for manufacturing. PdM generally refer to ability of saving money by reducing and forecasting machine Breakdown, in these instance we generally refer how generalised will appear with real production data. We created and accessed a machine learning model which depend on well organised boosting resolution to find errors or any failures.[13] Today, AI combined with recent advance in web ,and Semantic web-jointly defined as Semantic Web of things, It is to very important role in industry 4.0.Due to this authors generally called it as industry 4.0 as a Semantic Web of Things (SWeTI).[14]

Artificial Intelligence if we analyse it is developing rapidly in some new 'Internet plus' which in turn leads in innovating new models ,some ecosystem in industry ,ideas in architecture, manufacturing in technology, to combine AI in technology and all other ecosystem. [15] In Intelligent Manufacturing (IM) is considered as a latest version of Smart Manufacturing (SM) it will tell about technologies (Smart) such as (IoT) Internet of Things, System like Cyber, Big Data is considered under Industry 4.0. Artificial Intelligence (1.0) is defined as contents which is structured and centralised and later it modified and evolved into Artificial Intelligence (2.0) is defined as a contents which are unstructured and they are decentralised it is generally deep learning it just explain us how Intelligent manufacturing (IM) accept Artificial Intelligence (1.0) to get modifies Smart Manufacturing (SM) by Artificial Intelligence (2.0).

Security and Surveillance of AI?

[16] AI is helps in providing a paramount importance in security and surveillance one such is maritime surveillance in which focus monitor of fisheries (production, Decline),migratory activity, national security policy. Radars and ALS does not cover the enter maritime sensorshence Space-based sensors are crucial instead. [17]Security and Surveillance are very important to treat human life and their property . The idea of using lock-key for door now modified in way in which we start to use of cameras, alarms and sensors. Surveillance in AI is task in which monitoring and inspecting a person or some other gadget just to prevent or lower the risk of undesired threatening and hazardous in order to support normalcy. Even though there is lack of well-trained labour force and workforce. The growth of the communication and other technology(ICT) gave rise to increase in automation which is part of application of surveillance. This had made to decrease in human action and system is well developed to be valid and authentic. Automation have made between Internet of Things (IoT) and Artificial Intelligence is suitable and made more efficient. [18]Security and Surveillance with help of cameras and video are well advanced and very useful for safety for public. Due to limited labours for security so might result in undetect so many risk and dangerous. So that they decides to solve this by developing real time solutions. The goal to enhance a low-cost, very well organised, and a artificial-related solutions, and to identify the tools used on different videos for various situation. It can be done by TensorFlow.[19] Safety and protection for any sort of physical threat is just given by Security and Surveillance. Changes in Infrastructure of network may cause when there is Surveillance video installation and may affect the budget(financial). The main motive for Surveillance system. When we install any cameras(CCTV) in (UGV) unmanned ground vehicle it is move by itself to any geographic locations of it's own, by choosing the direction system. Analog Transmission is the way in which we can control (UGV) unmanned ground vehiclewithin the particular ranges. We can view a video anywhere by any computer devices using Analog. The video is board cast through (Analog) video transmitter and it get by through (Analog) video collector and can be noticed by software which is developed. In the ground control system the developed software can by easily notice the smart employee using a model which is deep in learning which is actually trained for a employee.[20] For protection and security of smaller areas monitoring and urban surveillance is very important. The safety of Urban civilisation is important due to Warfare of 'Gray zone' they use many methods for disturbing the services and mislead them by giving wrong information.

Artificial Intelligence in Education?

[20]AI provides long term goals in learning(which are long and wide),it access for worldwide classroom, studying skills of twenty first century, for every student it associate with mentor, providing a major infrastructural support, interlinking data with support in teaching.[21]Nowadays, Education in Artificial intelligence became aimportant trend exists there is a constant rise in AIED (Artificial Intelligence in Education),small works have been managed for bringing intense learning, AI which is Traditional is commonly used but modern AI is rarely used, the absence of education even has a job in AI technologies and engage in education. AI digital technology enhance a important role of making something what we thought, react based on these and also investigate further on these.[22]In education if we apply AI it give a way to human learning, on before when IT with AI in education many more technologies are created which make students to learn and maintain a environment and teachers to educate this example is e-learning or ITS. e-learning is educational based system which uses online along with web technology. ITS is result of beginning state of the AI.in this, models set for learners are called learners models and in based on data technology called analytics of learning is developed.it is usually analyzed by historical data of the learners(e-learning) Today the important achievement in AI is machine learning.[23] Artificial Intelligence is considered as well founded in education for 15 years, Many new learners and educating people are using it's applications, most popular application is Robotics, For the purpose of education the Lego Mind Storms kits are developed in MIT lab on 1980s. there are some robots which help in learning students and learners are Ozobot and other is Cubelets. [24] Artificial Intelligence are empowered mostly education 4.0.In this they meant for an innovative approach and the first is along with Artificial Intelligence they associate a process of high educational which help of sensors (small) and devices (wearable) for regulating (self) learning. And secondly Education 4.0 focused in didactic methods directing with analytics of learning and also machine based algorithm learning. The main goal of these program is to judge the marks of the students before final examination. They mainly focuses in Recognition system (early)for capturing data with include their study course and even as personalized (their character) at the earlier of the semester, and then Auto tutor By N.A.Crowder theory with adaptive learning and adaptive feedback assessment . FromThis , it clearly focuses for students and educationalist which help nourishing them in studies and taste the fruits of success.[25] AIED (Artificial Intelligence in Education) is came forward to teach with computers and pads and it make both students and teachers to explore into new ways and to make students understand more effectively.it ways not only helps in education but also in business affairs or even in personal uses. The technologies which were designed (Learning and teaching) with Artificial Intelligence in Education (AIED) Make promote and boosted in robotics and also use of sensors which help in detect our surrounding.It says Schools a place in which all come for learning which exists for 25 years where teachers came forward to teach Students.There will teachers who assist for education in Collaborative Robots (cobots) in classrooms of tomorrow and telling works of today about robotics. It also visualizes smart classes with help of sensors to hold up in learning and to make new ways with Artificial Intelligence in EducationAIED).[26]Artificial Intelligence and education together held 2nd International conference in September 1985 in United Kingdom (Exeter University). Intelligent Tutoring System find their origin in Computer Assisted Technologies. There are two primary approach in Artificial Intelligence (AI) in Education with use of computer is Intelligent Tutoring System (ITS) by Sleeman and Brown in 1982 and Computer Based Learning Environment by Papert in 1980 and Lawler in 1984. The advancing of either Intelligent Tutoring System (ITS) or Computer Assisted Instruction (CAI) use the methods of representation of Knowledge with Community of Knowledge Engineering

Advantages of Artificial Intelligence?

[27] AI is generally layout as an everlasting, authentic or well founded and economical(modest).It focuses on various branches like in medicine, engineering, and diverse in modelling, predicting, help in decision making, even in manufacturing, economics, law and linguistics. And in dynamic use of net in searching for machines and engines, and also in advance and lead in transportation system.[28]It function is generally unlimited, it help in finding unexplored things, it help in finishing a project much before human do, it helps in tough and hard work ,it make less error and detects, Efficient works can be finished in short span of time, there is high Success ratio, Various function will be done in fixed time. [29]The main impact is AI is depend on facts neither on sentiments nor in emotions, It is not affected by any negative impact as human usually undergo. It doesn't sleep as humans undergo as a disadvantage as result of tiredness, It helps in easier spreading of knowledge, When we train something for an Artificial mind , then it will be easy to copy or to teach something for others through training because it helps in saving in time. It further focused on the plan of multi-task program. [30]In Business AI main motive is to focuses on features, their functions and products performance, and it also focuses in taking right decision, making new products, To take supreme internal operations in Business, To carry on new markets, To take on and use scare knowledge in place where it used. Even to optimize external process like sale and marketing of new products. And even use Automation for reducing head count. [31]The basic need of AI is motivated by a idea that new beginner in AI should require at least an understanding in Literature of AI, Major rise in interest of AI lead to increase interest and large investment.[32] Artificial Intelligence can de established easily. Artificial Intelligence can be widely distributed in branches of industries and also in companies. Humans could feel he is loaded with a many activity of programming by own ,and self noting and also self-evaluating. Artificial Intelligence is considered as a low-priced labor in which our tasks are finished quickly and our yield will be more.In excavate(mining) and fuel inspecting process we could establish the knowledge of Artificial Intelligence and robotics in order to save human life. Because we could construct other robots but could not make other human life.[33]Artificial Intelligence are very useful in lessening the error and also help in greater precise which is near accuracy. Physicians will judge patients and health issues with help of Artificial Intelligence. Frauds can be detected by system called smart card basis. Important applications of Artificial Intelligence is Radio Surgery. When we go for longer trip with help of GPS. [34] The advantages of Artificial Intelligence is to Reduce Error it focuses to get accuracy (precise which is near to high degree of Accuracy) and help to reduce errors. It helps in Physicians , banking and even in airline departments and even in many other departments, the physicians name Jiang Jiang Zhi in 2017 believe that Artificial Intelligence not only help doctors to get better decision on clinical departments but also can be used in radiology department instead of human idea. Even in banks it help to error and to minimize fraud, theft, cyber and all other. And in University college of London Haitham Boamar and peter Bentley Invented Autopilot AI which majorly help in reducing errors may caused due to overload, And other advantage is multitasking tasks are just divided into routine & non-routine. By use of machine Intelligence we could perform our Repetitive task. As we know Machine do faster anything before human do that may lead to do multitask Example: To spam out E-mail using Neutral Networks. Other advantage is work for longer hours As machines (With artificial Intelligence) can work for long hours than human can do .Soon after Artificial Intelligence could soon became for experience for dining for taking order, Preparing meals and to even deliver. From fast food deliver to provide Non-stop service to customer is a digital innovation capability.

Disadvantages in AI?

[35]It might corrupt our rising generations, it will lead in deficiency and scarcity in human knowledge(touch), it will go wrong and opposite to what actually scheme want to do,it may mislead which lead in destruction, it has a power to replace human jobs.[36]AI require great extent of time and money, rising generations could became lazy, joblessness and worklessness will be increased, Reliance on machines and new technology will be risen, Dependency on Technology will be increased, Mass scale destruction will be the result of misusing, Idea will only depend on the programmer. Program could be mislead and work in wrong way. [37]It lacks a basic sense on reasoning which might cause several problems, Impotency to describe an logic and cause behind sensible decision. It lead to lack in creatives and innovations. Blindly if we depend on Artificial Intelligence then it may cause :If someone mislead Artificial Intelligence it will produce irrelevant answers. No reason will be given for these irrelevancy.[38]Technology and Technologists are costly and highly priced, Technologies are undeveloped, They have been oversold in markets, It is difficult in connecting those with existing system. It is only too less people who expertise in technology. The supervisor does not understand how cognitive technology and how it work.[39] Equipment are all so expensive hence not at easy for developing machines, Even though machines are effective in working and cannot be substituted for activities of human in which can create a team .It is very expensive may cause bulk of cash in order to repair rebuilding and to create, Much drastic unemployment will happen in replacing jobs by Robots, Technology are just perform only for task they set for, other than it, it will crash, Many problems will raise with utilization standards when we do many works and tasks with use of robots in turn human activities and jobs will be less. But many company are just focusing for interchange just less qualified with more advance Robots in order that they do work more effectively.[40] Intelligence are considered as nature gifts,But it require lot of money for constructing huge machines. Artificial intelligence power may cause huge damages and machine get crushed and broken. For repairing and maintaining we require huge amount of cash. Updating hardware and software according to latest usage will waste in lot of time, money.

Conclusions of Artificial Intelligence?

The Conclusions of Artificial Intelligence it just help us to live a better life, Combining Artificial Intelligence with Machine Learning helps us to make many things much easier as there. Wondering, Since thousand years ago, Machine could understand , analyses and perform the activities what human could do. It makes the job easier , it helps in saving time, money to different sectors. On the wider way, it is branch under Computer Science, Where it's main aim is Machine Capacity or Ability is to generate Intelligent thinking and Reasonable answers for an External inputs. Even it help in Tough and Hard Works. It has Certain disadvantages there will no human touch (Knowledge) it make lazy and finally a mass destruction in human activities in Rising Younger Generations. Hence, Concluding that anything beyond a limit will bring a danger. We should keep track on it only for our usage nothing other than it.

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