

LEGALFOXES LAW TIMES

ARTIFICIAL INTELLIGENCE AND LAW

(DATA ETHICS AND SOCIAL SCIENCE)

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Abstract:

Over the years artificial intelligence has spread its origin in various areas. It has made the utilization of computers to learn and handle the tasks which are difficult and the tasks which require labour by human beings. It is considered to be a multidisciplinary field whose main goal is to automate the various activities which at present require human intelligence. Artificial intelligence does the task with great accuracy and speed. It is an intelligence that is exhibited by various machines and software. It is considered to be the subfield of computer software. Nowadays it is helping to solve the problems of various fields such as science, business, medicine, weather forecasting, etc. It has created a feeling of anxiety and fear in the minds of people that human jobs are going to be taken and their jobs would get replaced by the computers in the coming future¹. The analysis system based on a deep learning algorithm applies this type of method for the classification of the documents. Artificial learning helps in legal document translation, summarization, text classification, data forecasting, and the obtainment of data. In this paper we will learn about the different methods used for legal tasks such as learn data search, legal perspective interface, etc. It will throw light on the history of artificial learning in the legal industry and their impact, it will talk about the pros and cons of the artificial learning in the legal history.

Keywords: multidisciplinary, subfield, anxiety, legal tasks, history.

Introduction:

Artificial intelligence is indicated as machine intelligence. As machines have now grown proficient in the jobs which demand intelligence they are excluded from the meaning of the AI.

¹ScienceDaily. (2011, April 11). Retrieved from <https://www.sciencedaily.com/releases/2011/04/110411083750.htm>

AI was established in 1955 by the educational system. It is subdivided into subfields that do not communicate with each other they are based on scientific considerations like some purposes or the use of devices, they are even based on the social determinants. The traditional difficulties involve reasoning, information, knowledge, planning, insight, etc.

They use a variety of tools such as mathematical optimization, statistical methods, artificial networks, and economics. Various fields are included in AI such as mathematics, psychology, philosophy, etc². It will address the development of formal or different models related to legal knowledge, reasoning, and the decision-making process. It will help in labelling the legal, moral, and social implications of the use of artificial intelligence in the field of law. It will address the development of formal or different models related to legal knowledge, reasoning, and the decision-making process. Artificial intelligence helps in labelling the legal, moral, and social implications of the use of artificial intelligence in the field of law. It includes various approaches including not only artificial intelligence and jurisprudence but it includes logical, machine learning, philosophy, cognitive psychology, etc. It includes various topics where it can be used such as the artificial intelligence in healthcare in which helps by using the complex algorithms and software for imitating human cognition and how AI technology is different from traditional technology. Artificial learning in the education system is helping the human learn better and is helping them in achieving their better objectives. Artificial learning has proved to be a boon for disabled people because the AI chatbots at home are helping the disabled people to stay at top of their care plans. Artificial learning is considered to be a technique where the algorithms can learn associations of the predictive powers of the data. This can even be considered to be the best solution for solving the major global environmental crisis because it can help in monitoring the endangered species, optimize crops, and track down diseases. The farmers in the farms have to put on a lot of effort for the plantation, maintenance, and the harvesting of the crops all this requires a lot of money, resources, and labour but artificial intelligence can help in replacing the human efforts to the technology. This can prove to be a boon to our agriculture productivity.

This field was found based on human intelligence. It is been considered that AI is a huge danger to humanity if it is left unabated because it will create a risk of unemployment. The techniques of

²Definition of AI as the study of intelligent agents: Poole, Mackworth & Goebel 1998, Russell & Norvig, Nilsson, Legg & Hutter

AI have come out to be an essential part of the technology industry because it is used in solving many problems in computer science and operational search.

AI is also known as the study of intelligent agents. After all, it is a device because it discerns the environment around it and then takes the actions so that the chances of achieving the goal can be maximized³. It interprets the external data and uses its intelligence for achieving the goals. It is considered to be an interdisciplinary science that has multiple approaches but due to machine intelligence so it is causing a shift in all the sectors related to the tech industry⁴.

The various approaches which have defined the AI historically are:

- Thinking humanly
- Thinking rationally
- Acting humanly
- Acting rationally

The first and the second points refer to the thought process and the third and the fourth point deals with the behaviour.

There are various Data ethics and social science domains which is related to artificial intelligence and law which are as follows:

- AI and data processing
- Robotic justice in Indian administrative
- AI in the health care sector
- AI in the education system
- AI and health care
- Geriatric care and AI
- AI and disability
- AI and data protection
- AI and algorithmic bias
- AI and environment protection
- AI and agriculture.

All these domains will be explained in the paper one by one.

³ "Artificial Intelligence: An Introduction, p. 37" georgetown.edu

⁴*Builtin*. (1950). Retrieved from <https://builtin.com/artificial-intelligence>

AI and data processing:

Data processing refers to converting the raw data into some meaningful information. These types of services require a skilled professional who can apply various techniques so that they can analyse and process the data. For every business firm data is considered to be the most important tool for making critical decisions⁵. By the use of technology, the credibility of the data analysis will increase. Organizations are slowly realizing that data can be managed in a better way with the use of technology⁶.

The latest technologies such as artificial intelligence is dependent on the huge amount of data. Data is the main thing for these technologies and it should be arranged in the format which can be understood by these technologies. If the data is not arranged properly then the algorithms would provide with wrong analysis and the data will not be comprehended correctly.

It is essential for organizations to understand the concept of analysis and should focus on the collection, cleaning, and changing the necessary format. There is a process which is needed to be followed for proper processing of the data

The steps if data processing is:

- **Data collection:** this is the first step in which it is required to collect the data and developing the right data required for artificial intelligence or algorithms.
- **Data transformation:** in this step, a relationship is formed within the variables and the value which is obtained. This is considered to be an important step for making the database strong.
- **Data analysis:** in this step, there is a need to have an in-depth understanding of the data such as its types or any missing data which is very important to work on the data.
- **Data training:** after the completion of this step the analytics can be started which is considered to be the base of artificial intelligence and in this step, the data can be organized with labels.
- **Experimentation:** the experimentation is performed to remove any kind of problems that might occur because of any vague idea related to the results and the changes.

⁵*Datanami*. (2019, Aug 6). Retrieved from <https://www.datanami.com/2019/08/06/the-anatomy-of-ai-understanding-data-processing-tasks/>

⁶Ibid (5)

When the data is organized then the things can be measured with the help of data sets⁷. Through this, artificial intelligence can work and the company will gain profits and will be able to learn more advanced methods.

The company can even outsource its data processing technique which will help in creating a better model. Sometimes the companies try to work in haste in implementing the data processor and do not follow all the steps because of which they experience imperfect models. So, all the steps should be followed.

Robotics justice in Indian administration:

A case in a court requires a lot of time for giving any judgment or coming to any decision but legal research can be done within a few seconds if executed by a robot. Artificial intelligence has provided various inventions to the judiciary system through which the lawyers will be able to browse thousands of legal case records or any predicted results in a few seconds.

The future of the judiciary is on a bright side where the lawyers will have a detailed knowledge of the legal matters which will be provided by artificial intelligence. This is considered to be a very impressive innovation that is bound to exist⁸.

Artificial intelligence has introduced the concept of machine intelligence in the world for the prediction of the decisions of the judges in legal cases. AI contains the capability of making predictions by telling how judges are going to rule.

Artificial intelligence gets involved in the courtrooms then it can rule the law. When any non-tech sector involves the technology then it would affect the careers of employees who are belonging to that profession through artificial intelligence fair judgments that can be provided.

Ways to envision the role of AI in the legal system:

- **The purpose of the robotic expert:** lately there is research performed by the students of Stanford University about the robotic judges. They have made a study that how AI will cause a difference in the judicial system. They are creating an AI-powered Robo judge

⁷Offshore. (2019, October 25). Retrieved from <https://www.offshoreindia.com/blog/2019/10/25/data-processing-machine-learning-ai/>

⁸ Remote monitoring of high-risk patients using artificial intelligence, archive

for the courtrooms who would provide fair and quick judgments. The choices presented by them would be more specific as correlated to the choices presented by human beings.

- **Fixing human negligence:** there is an evil judiciary practice this has been a discussion in our societies but in the effect, they are also human beings and their judgments would be impacted by several circumstances. Artificial intelligence will not grant a solution for all these omissions done by humans but it will help in fixing things (Universidad Carlos III de Madrid, n.d.). If AI is implemented in the court then it would not imply that all jobs would be conducted by machines. Rather, it will be used to support humans in having strong effects.
- **A more helpful and simplified version of judge ruling:** in the courts, all the choices are held behind the closed doors and no one can be included in it. AI will be able to expose the fact to the people that how the discussions and judgments are taken behind that shut doors and why that judge had decided that punishment given to the suspect. So, AI is something that is aspired for a very long time.

Research documents and legal cases:

The software which is driven by the AI enhances the analysis of the documents related to the legal matters. AI will help in reviewing the documents and will relate to respective cases. Then the AI algorithms will help in discovering other documents⁹.

Forecasting legal results:

Artificial intelligence algorithms can scrutinize the information for forecasting the results of the legal cases as compared to humans. With the help of artificial intelligence, lawyers will be able to know the results for their cases before even they appear in the court for the proceeding.

Automating divorce:

A divorce settlement takes a lot of time around one year or more and will be highly expensive but the artificial intelligence will help in providing negotiations and will take all the decisions

⁹Cyfuture. (2019, may 19). Retrieved from <https://cyfuture.com/blog/ai-as-a-fair-judge-revolution-in-the-justice-system/>

which are necessary for the circumstance. The legal professionals take the guidance of AI whenever it is required.

So artificial intelligence is providing positive changes in the judiciary and the legal sectors. Through artificial intelligence, the procedure of witnessing of the criminal and civil cases can be changed totally. So, AI is helping the society in transforming their faith injustice.

Artificial learning in healthcare:

When the term artificial intelligence comes people always imagine robots doing the tasks and causing humans to leave their jobs. But the AI-driven computers are programmed for making the decisions with human interference and are designed even to take the difficult decisions taken by the doctors¹⁰.

Artificial intelligence is changing the field of medicine. AI in healthcare may be defined as the doctors and the hospitals to access the huge amount of data that contains life-saving information¹¹. The information can include the treatment methods, the survival chart, geographical location, etc. They can detect the large and even the small trends and make the predictions through these machine learning's whose main task is to identify the health outcomes. Machine learning takes the statistical technique for giving the computer system the capability of learning with the incoming data and identifies the patterns and can make decisions with the least human directions.

AI helps doctors to personalize the care given to patients. Because it helps in access all the information and have a healthy discussion with the patients.

Artificial applications in education:

Artificial intelligence is becoming a huge part of the education system. Education institutions from the elementary to the high educations as well as the professional learnings are having been converted into machine learnings through which the humans can learn better and can achieve their desired goals¹².

¹⁰. "Artificial intelligence 'as good as cancer doctors'". *BBC News*

¹¹. "Are Autonomous Robots Your Next Surgeons?". *CNN*

¹²*Forbes*. (2019, July 12). Retrieved from <https://www.forbes.com/sites/cognitiveworld/2019/07/12/ai-applications-in-education/#742fda1b62a3>

In the education system, various challenges had to be faced because different people learn and adapt differently some people adapt better with the left brain and some with the right brain. People differ based on their physical and mental disabilities also.

AI-enabled hyper-personalization:

The AI systems can personalize the learnings for each student. They can develop a custom learning system for each student based on their abilities and they even customize the training materials for them. Machine learning is changing the methods used for the things done in education. Through this, the learning is becoming paperless and in the coming future, there will be no hard copy textbooks for the learnings.¹³ Teachers ask for feedback from the students so that they come to know the areas in which the child is struggling. New adaptive learning features are introduced so that each student gets a chance to learn things at their speed¹⁴.

Assisting educators with organizational tasks:

Teachers in educational institutions have to handle various non-teaching responsibilities such as the grading of exams, paperwork, managing classroom material, managing the field trips, etc the artificial intelligence helps in managing these back-office tasks. They can help in grading and can even handle the paperwork are various other personnel issues. Through AI there can be interactions with the parents and guardians so that they can have a personal touch with the students. Through AI-powered systems, it is possible to improve the efficiency of the institutions by lowering their operating costs and improve their responsiveness in educational institutions. These systems are helping to eliminate human biases and provide a fair admission criterion as compared to humans. Various colleges are using this for their admission process so that they can handle it more systematically.

Implementation of artificial intelligence in global education:

Artificial intelligence is being utilized worldwide for administration, tutoring, grading, etc. The product of implementing technology in the field of education has revolutionized the education system throughout the globe. China has done a huge amount of investment in the education

¹³ "Artificial intelligence as the basis of future control networks". *Preprint*.

¹⁴ *Indian Didactics Association*. (2019). Retrieved from <https://indiadidac.org/2019/03/how-ai-will-be-a-game-changer-for-indian-education-system/>

sector. India is considered to be the leading developing country that has adopted artificial intelligence in the education sector¹⁵.

According to research around USD160 billion is being spent on education technology worldwide. India's central board of secondary education (CBSE) has also tried to mould the education system and has tried to make the students well aware of these latest technologies for which they have included artificial intelligence in their curriculum.

Artificial intelligence ability to transform the education system is five barbed:

- **Students can obtain further assistance from the tutors of artificial intelligence:** when the teachers are not able to choose which means, they should use to teach the students then the AI will assist in apprehending the choice will making minor mistakes than the human beings.
- **AI's control can be leveraged during the evaluations:** the current evaluation models concentrate on the overall ability which is deemed to be not of much value because the evaluations are used to diagnose and new evaluation. With the guidance of AI, a clear and honest way to evaluate the applicants can be taken into attention.
- **AI decreases the time wasted on grading:** AI can never substitute the grading done by human beings but it is going confidential. Teachers have to spend plenty of time grading papers but now by artificial intelligence, it is likely to automate grading for the multiple-choice problems and the fill in the blank experiment. By this, a lot of time and supplies are protected from becoming exhausted.
- **AI grants to personalized learning:** several teachers and trainers have been fighting so that they can create abilities for education because every child has diverse kinds of knowledge. Through AI the teachers can utilize different audio-visual techniques for education. AI school can control the development of the students and can warn the teachers if any child has a problem with the achievement.
- **AI can point out areas where the fields are in a requirement to develop:** seldom teachers leave their students worried linked to some theories. AI can assess the content

¹⁵BW *Business World*. (2020, May 11). Retrieved from <http://www.businessworld.in/article/Is-Artificial-Intelligence-The-Way-Forward-For-Education-In-India/09-12-2018-164980/>

and can present the students with free education sources. Through this, the breaks in the description of the courses can be included and will assist in assuring that all students are developing the same conceptual framework

Artificial intelligence and algorithmic bias:

Algorithmic bias refers to the systematic and repeatable errors which happen in a computer system which would create an unfair outcome, for example, giving privilege to one arbitrary group of users over the other. Biasness can take place due to a variety of reasons which is not limited to the designs of algorithms or the way the data is coded, collected, or is used in algorithms. It is not limited to the social media platforms but can have impacts such as privacy violations to social biases of race, gender, etc. Algorithmic bias is mostly related to the systematic and unfair discrimination. Algorithms are considered to be neutral and unbiased because of which they can have greater authority than the human expertise itself¹⁶.

Bias can be entered into the algorithmic system which can be a result of the pre-existing cultures or social expectations. Algorithms can be understood as the list of the instructions which explains that in which ways the programs are read, collected, processed, and analysed so that the desired output can be achieved. Algorithms have provided a boost to the designs and the adoption of technology such as artificial intelligence¹⁷. Algorithms help in analysing and processing the data therefore they are considered to be the backbone of the search engines, social media, online advertising, etc¹⁸.

Methods for implementation: MISSION YOUR SUCCESS™

Bias can be implemented in algorithms in various ways. While the dataset is assembled data needs to be collected, adapted, and then it is entered into a database according to the cataloguing criteria designed by humans. Various algorithms collect the data of their own which even reflects the bias of human designers.

What can be done regarding the biases in AI?

¹⁶ "Ask the AI experts: What's driving today's progress in AI?". McKinsey & Company

¹⁷ *Changing Intentions. Algorithmic Foundations of Robotics XI*. Springer Tracts in Advanced Robotics. 107. Springer, Cham

¹⁸ *Culture Digitally*. (2012). Retrieved from <http://culturedigitally.org/2012/02/what-is-an-algorithm/>

Human business is well documented they are used to demonstrate the biases of which people are not even aware of and to check that much these biases can affect the outcomes. AI can help in reducing the impact of the human biases but can even make the problems worse by deploying them in sensitive application areas. AI learns to make the decisions that are based on the training of data which contains the biased human decisions or social inequities within them. The business and the organizational leaders have to make sure that the systems of AI are used to improve the decision making of humans and will help in encouraging the progress on research which will reduce the bias in the AI.

AI and data protection:

The various enterprises have started to look for various ways how to utilize the AI to protect the data. Big data is referred to as machine learning and artificial learning which is used for collecting and protecting the data. Robust data protection is used to protect the data and assets of the enterprise, these tools help the organizations to analyse the historical data and the analysis of behaviour and can help in providing the operational support before any wrong attack happens.

AI in the protection of data from malware and ransomware:

When AI is combined with ML then a huge amount of historical data can be converted into predictive patterns. AI monitors the workflows of data so that they can identify the attacks and respond to them as soon as possible.

AI in an enterprise can use security in:

- Offering time analysis and monitoring
- Developing detection systems
- Analyse and monitor data patterns
- Providing extensive analysis of historical data
- Capturing a huge amount of data from external sources

Therefore, AI can help organizations to protect their enterprises from malware and ransomware¹⁹.

AI in protecting privacy:

¹⁹ "Security lapse exposed a Chinese smart city surveillance system"

The data privacy of AI can help the enterprises to identify all the sensitive information and control the movements which are going on within or from outside the enterprise. Through AI all the risks can get monitored and analysed which contains all the sensitive information in the organization.

Privacy issues faced by AI:

The approaches to algorithmic discrimination have many debates related to privacy rights. The various kinds of discriminations that are itemized in the algorithmic discriminations have enabled the individuals to bring various claims for discrimination. Various organizations and the companies have proposed the accountabilities. The proposals of these companies take various forms such as:

Transparency: this is referred to as making of disclosures for the use of algorithmic decision making. Privacy policy needs to be detailed only then it is considered to be helpful to the employees. It helps the companies to add regulators and privacy watchdogs so that it can examine the data handlings of the company and can hold it accountable.

- For **adding privacy disclosures** there is a need to provide descriptions of how the data is collected and is protected.
- **Explain ability:** transparency provides with advance algorithm decision making so explain ability provides information about how to use the algorithms in specific decisions. It entails a regulatory burden and constraint on the usage of the algorithmic decision making.
- **Risk assessment:** the risk assessment for algorithmic decision making has provided with the chance to potential biases in design and the data and the impact on individuals. The risk assessment should be correct for doing the decision making and is dependent on the consequences of these decisions.
- **Audits:** they evaluate privacy practices. They contain some requirements which need to be followed so that there is an assurance of the companies following the privacy program. They include self-audits and third-party audits within them. Measures such as transparency and risk management are combined with checks of audits and the human review of decisions they can help in the identification of the unfair results²⁰.

²⁰DATA PROTECTION IN THE ERA OF AI. (2019). *BDV*.

Geriatric care and artificial intelligence:

Today artificial intelligence is present in hospitals that help the clinicians to identify the risk associated with medical, form the treatment plans for patients who are suffering from rare diseases, and deliver medicines. AI provides logical decisions and unbiased ones but they can never understand the emotional, cultural, and physical needs of people.

Human doctors will be able to understand that how to treat their patients and along with that they will be able to understand what is the condition of the patient and what type of care plan is needed by that patient. They can form a healthy relationship with the patient based on emotional connection²¹.

The social robot:

The AI chatbots can be used at home to help the elderly keep track of their care plans. This instrument helps in reminding the senior citizens to take their medicines, their appointments with the doctors, their diet plans, and can even help in removing the anxieties which the elderly suffer. These robots can prove to be really good companions for lonely senior citizens. The elderly people start to have a good relationship with the AI chatbots.

Combating isolation:

These social robots have sensors on their bodies through which they can help the seniors to manage their illness so that they can feel confident by living alone. These sensors at the home will even determine when a person has fallen or has met with an accident at home and can notify with the emergency services and call for help through this, they build confidence in living well at home.

There are five ways through which AI has revolutionized the elderly care:

- **At-home fitness monitoring:** there is a necessity for controlling and diagnose aged patients, through device-level AI it is likely to deliver the biometric distant monitoring resolutions so that the patients can be observed at frequent periods. They can even predict variations in the behavior of an individual which can identify health problems.

²¹NCBI. (2019). Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6616181/>

- **Smart device served daily maintenance:** intelligent biometric trackers have been launched by Apple and Fitbit which will help the aging and geriatric patients. Through these trackers, the differences within the biometric data can be controlled and can identify a strong fall that would drive to a reliable signal.
- **Smart device supported fall discovery:** a simplistic lapse or a fall can begin to many difficulties which can moreover trigger more critical medical difficulties within the patients.
- **Virtual partners:** the old patients who live solely need regular support so for its robotic assistants are produced. These robots encourage adults to be effective and will assist them in joining with their families and the external world.
- **Anti-aging analysis:** AI assists in the analysis of ant-aging. It is assisting in developing ways to delay the method of aging. It even assists in producing drugs for age-related disorders.

AI and environment protection:

Artificial intelligence is considered to be the best solution for solving the problems of the global environmental crisis. Climate changes, animal endangerment, diseases. It helps in making the environment protection market report which expresses the positive growth rate in the years.

The field of artificial intelligence in the environmental protection market can become a very good solution to solve the problems of the environment. The environmental problems are growing rapidly due to global warming, air and water pollution, animal endangerment. Due to this, it can lead to a rise in the use of sources of energy that can be renewed. The SAS has introduced a software named footprint identification technology which can lead to monitor and protect the animals from any threats.

AI in environmental protection can help in protecting the oceans, fishing's, coral bleaching, etc.

The data of the GRACE satellite which is installed in 2002 can help in determining the data of the planet²². The increase in the temperature, rise in the level of the sea, polluted city air. AI is a

²²*Openexpo*. (2019, April 22). Retrieved from <https://openexpo.europe.com/ways-in-which-artificial-intelligence-helps-protect-the-environment/>

technology that is helping to implement various solutions for facing the problems faced by the earth.

- **Smart agriculture:** AI allows in taking actions in agriculture due to the implementation of robots so it allows in the detection of disease and the problems of the crops. Through AI there will be an increase in efficiency for the utilization of the agricultural resources, reduce the consumption of water, etc.
- **Smart cities:**It is very important to have sustainability between the cities so that environment can be protected. AI will help in generating the data based on the activities of the water and energy consumption
- **Renewable energy:** AI can help in improving the storage and efficiency of energy, it can even lead to the integration of these renewable energies.
- **AI and disasters:** AI help in detecting the disasters and will provide with the coordinated alerts regarding the emergency.
- **Weather predictions:** `Can I help in improving the understanding of the effects of the climatic changes. It has the power to make the computers which are so powerful that they can accelerate the scientific findings.
- **Vehicles and AI:** electric vehicles will help in saving the environment by reducing the production of greenhouse gases.
- **Transparent management:** AI will help in the removal of illegal water extraction, air pollution, deforestation, etc.
- **Study of earth and AI:** AI if gets collaborated with the engineers then they will be able to find climatic physics, material science, and biology, etc.

AI and agriculture:

The various activities which are related to agriculture take a lot of effort such as planting, harvesting of crops, etc. To replacing the various human activities with the technology would be the best solution because AI can identify the various diseases in plants. A technique is used so that AI will be able to recognize the diseases related to crops and the damages related to pests.

Agriculture is now becoming digital and AI is appearing into three categories

- **Agricultural robots**
- **Soil and crops monitoring**
- **Predictive analysis**

Farmers are even becoming modern because they have started to use various sensors and the samples of soils so that they can gather the data for better processing and analysis. Because of this AI is being introduced in agriculture.

AI helping in analysing farm data:

Farms produce thousands of data daily. So, the farmers can take the help of AI to analyse the variety of data such as the temperature, soil conditions, etc.

AI even helps in improving the quality and accuracy of the harvest. AI can detect the diseases which the plants, pests are suffering. Through the sensors, these diseases can be detected and all these toxins can be removed which later finds a way to our food.

Farmers even use these technologies to create a forecast for seasons so that they can improve productivity and agricultural accuracy. Through these models, the upcoming weather can be predicted²³d.

The most popular applications of AI in agriculture are included in three major categories:

- **Farming robots:** various organizations are building independent robots so that they can check the farm duties and can harvest the crops.
- **Crop and soil monitoring:** firms are beginning algorithms so that they can obtain the data and can control the crops and the soil health's.
- **Imminent analytics:** models are designed so that they can foretell the environmental consequences on the crops.

Advantages of the implementation of AI in agriculture:

The artificial intelligence in agriculture will help the farmers to understand the temperatures, wind speed, etc. **The various advantages are:**

- AI provides alternative and much better methods for production, harvesting, and selling the crops.
- AI helps in checking all the defective crops and will provide ways to produce healthy crops.

²³Artificial intelligence in agriculture." *Computers and Electronics in Agriculture*

- As artificial intelligence is growing it has to lead the agricultural business to run more efficiently.
- It is using better technology for weather forecasting and controlling diseases.
- It helps in improving crop management.
- It helps in solving all the problems which the farmers face such as climate variations etc.

AI technology helps in rectifying all the problems faced by farmers and will even help in recommending better actions so that they can overcome their problems²⁴.

AI and disability:

Artificial intelligence helps in decision making which impacts the lives of people. Disability has many dimensions and is different in their intensities and their impacts. The information which is related to disability is very sensitive and cannot be shared easily. AI systems do not have much information in them which is related to disability which can be used for fairness tests and corrections. So, while AI is a great chance, it is also a huge threat to full formation for people with disabilities. Most researchers, approachability experts, and disability rights associations agree that building inclusive data sets are one of the biggest challenges for researchers and that AI approachability should be a base level necessary for AI standards.

WID also advises that persons with expertise in disability culture and approachability be engaged early in the AI standards construction, as well as those with expertise in identifying and addressing certain bias and those who can set guidelines for exhibiting inclusive data sets. The incorporation of those with relevant expertise will go far to attain full inclusion of persons with disabilities in later data sets.

Advances in artificial intelligence have encouraged the development of smart devices to assist people to overcome physical and cognitive difficulties. And, this may just be the commencement.

Ways in which AI is helping people with disabilities:

²⁴Adoption of artificial intelligence in agriculture. *Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca. Agriculture*, 68(1)

- **Increasing communication:** AI technology which is assisted by voice such as Alexa, echo, etc they are considered to progress in communication. They contain cognitive learning within them so that people with visual impairment can also be able to understand images. They even contain speech to text and text to speech technology within them so that people who are recovering from brain injuries can have more communication.
- **More accessibility:** genetic conditions are any complications during birth that will require assistive technology in their lives. Any person who had gone through accidents will require something that can navigate them in day to day life. So, through AI, these people can live more independently.
- **Enabling independent living at home:** people who are disabled need to rely on other people for cooking, completing tasks, etc. But AI technology has a lot of advancement in the internet of things and has opened many new doors related to accessibility.

Conclusion:

Artificial intelligence and technology have always surprised us with their innovative idea's products etc. It has helped us in understanding the very nature of intelligence and has impressively spread itself in a wide range of areas. It has been successful in sharpening the understanding of human reasoning and the nature of intelligence. AI has found its ways of representing the knowledge and experience that will help humans to carry out their everyday tasks. These digital computers are capable of running various programs that can support the complexity of human thought.

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