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## AI AND THREAT TO PRIVACY

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### ABSTRACT

In recent years, artificial intelligence (AI) has advanced at a rapid pace. AI tools are increasingly being employed by both private entities and public sector organisations throughout the world. AI's capabilities today soon provide widespread and significant advantages to individuals, institutions, and society. However, these same technological advancements present serious concerns, such as the conflict between AI and data protection legislation.

Answers are being sought by regulators, organisations, researchers, and practitioners from numerous fields. Privacy specialists are also becoming more active in AI governance. They have the task of interpreting the complicated interplay between privacy legislation and larger trends concerning the ethical use of AI. With government authorities increasing their enforcement, rulemaking, and legislation in this complex arena, it is critical that organisations understand the current privacy requirements for AI, those on the horizon, and the resources available to build a compliant data protection framework for AI applications.

As a result, we have both the chance and the responsibility to assess the effectiveness of present data protection legislation in light of 21st-century technical developments. While compliance with existing data protection rules is crucial, a better long-term strategy is to view the issues posed by AI as another wake-up call that our current approach to data protection is becoming increasingly antiquated and

ineffective. In this view, data protection regulation must be strengthened in order to safeguard privacy, properly handle the issues posed by AI, and avoid introducing needless, bureaucratic hurdles to the advantages of AI.

**Keywords:** AI legislation, Data protection, Privacy, Ethics, Technological advancement

### INTRODUCTION

Artificial Intelligence means – Intellectual ability developed by artificial means. According to *John McCarthy*, the father of artificial intelligence, it is the science and engineering of making intelligent machines, especially intelligent computer programs, that is, the intelligence demonstrated by machines.<sup>691</sup> Artificial intelligence is a sub-division of computer science and its roots are completely based on computing systems. The ultimate goal of AI is to create devices that can act intelligently and independently and reduce human labour and manual work.

It uses machine learning to mimic human intelligence. Siri, Alexa, Tesla cars and digital applications such as Netflix and Amazon are some of the best examples of AI technologies.

Types of Artificial Intelligence

- Fully Reactive (Purely Reactive)
- Limited Memory
- Brain Theory
- Self-Conscious

### HOW DID ARTIFICIAL INTELLIGENCE START?

Artificial intelligence started in the 1950s, but it got recognition in the 1970s. Japan was the first to take the initiative and started a plan called Fifth Generation in 1981. In this, the outline of a 10-year program for the development of super-computers was presented. Later Britain made a project for this named 'Elvi'. The countries of the European Union also started a program called

<sup>691</sup> Jigyasu, Diyani. "An Evaluation on Artificial Intelligence." Vol. 4.2 *Journal of Advanced Research in Applied Artificial Intelligence and Neural Network* (2021)

'Esprit'. In 1983, some private organizations together established a consortium 'Micro-Electronics and Computer Technology' to develop advanced technologies applicable to Artificial Intelligence such as Very Large Scale Integrated Circuits.

## TYPES OF ARTIFICIAL INTELLIGENCE

### 1: Weak AI (Weak Artificial Intelligence)

If we talk about Weak AI then we will call it **Artificial Narrow Intelligence**. Weak AI is some kind of intelligence that specific device can work well only in

**For example:** If your computer plays chess games, then it is an expert at playing chess; yet, aside from playing chess, that poor artificial intelligence is unable to perform anything else. If you continue to talk, the recommendation will appear below in Shopping Sites such as Amazon and Flipkart. If you make a purchase, it indicates that this system is competent and that it is ready to carry out its duties. However, it is not capable of playing chess. Therefore, we refer to this type of intelligence, which is only applicable to a particular domain, as Artificial Narrow Intelligence.

You should now have an understanding of what weak artificial intelligence is, how it operates, and the reason why it can only accomplish one thing in a single device.

### 2: Strong AI (Powerful Artificial Intelligence)

If we are talking about the human mind, then it is really complicated. People have a lot of common sense, and some people even claim that machines do not have the same level of intellect that humans do. Strong AI, also known as Artificial **General Intelligence**, is therefore what's needed to make the machine behave like a human brain. Strong artificial intelligence (AI) refers to a system in which the capabilities of the human brain and the computer are practically identical. That is, whatever task you are able to perform, whatever you are able to

think of, and there are a lot of such everyday things that we humans are able to accomplish with relative ease. If a robot or computer is capable of performing all of above tasks, we would refer to that type of intelligence as Strong AI or Artificial Wide Intelligence.

### 3: Singularity (AI) - TYPES OF ARTIFICIAL INTELLIGENCE

Strong AI is not used yet. It will probably come in the market by 2050, then you will get to see such machines, such robots whose intelligence level will be equal to humans.

If you are thinking that there is nothing beyond this, then you are thinking completely wrong because it is Artificial Intelligence (AI). If once a machine has learned something, it will continue to improve it further.

**For example:** If we have some computer then together we will make a better computer and by combining those computers which will be made, they will make a better computer, then in such a situation, it is AI, it will increase to a more exponential level, then in such a situation a Something will come out which we will call Singularity or **Artificial Super Intelligence**.

If we say in general the singularity is such intelligence beyond which human being is nothing. Meaning if once it has come in the level of human mind, then it will go far ahead of it.

If seen in such a situation, this is a very good thing, we will control things very well, we will do new experiments and if we have very powerful robots, then we will be able to do a lot with their help.

But! If the machine becomes super intelligent, then will the robot obey us? Many computer scientists in the world, even Bill Gates, Allen Musk have doubted that if the machine and the human mind become singular, then the world will be in danger. Will go

However, if the time has come for superintelligence, and the machine begins accurately following all of the norms that man has established, then we will refer to that as

**Artificial Emotional Intelligence.** This means that machines will be able to feel emotions, but they will still be under human control because they will have those emotions.

### ADVANCEMENT OF AI IN THE RECENT YEARS

Artificial intelligence is permeating more and more aspects of daily life. AI chips and related smartphone applications are the latest trend. In many aspects, the world we live in today resembles the Wonderland described by the British mathematician Charles Lutwidge Dodgson, better known as Lewis Carroll, in his renowned novels. Image recognition, headphone amps, and self-driving vehicles are all attainable thanks to improvements in artificial intelligence (AI), which is defined as "a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation."<sup>692</sup>

### WHAT DID THE PHILOSOPHERS THINK OF ARTIFICIAL INTELLIGENCE?

The study of Artificial Intelligence today has been significantly influenced by the philosophical works of many great thinkers, beginning with Plato and continuing with Descartes and Daniel Dennett. It has already been established that Aristotle had a significant impact; however, it has been suggested (Dreyfus, 1972) that the origins of artificial intelligence may be traced back to a statement made by Plato. In this statement, Plato said, "I want to know what is characteristic of piety which makes all actions pious... that I may have it to turn to, and to use as a standard whereby to judge your actions and those of other men."

This brings us to a basic question that philosophers and AI researchers have been asking for many years: Is the mind more than just a collection of neurons? René Descartes, the

famous philosopher of the 17th century, was a firm believer in dualism, the belief that the universe is made up of two distinct entities: mind and matter. This viewpoint provides confidence to proponents of Artificial Intelligence, who think that by merely combining enough computing capabilities and programming it correctly, a machine may be taught to act similarly to an animal, or even a living human.

### AI FROM THE 1950'S

AI, which was established as an academic field in the 1950s, remained a subject of considerable scientific mystery and minimal practical impact for more than half a century.

Technology, began in the 1950s with the Dartmouth Summer Research Project on Artificial Intelligence at Dartmouth College, USA. The origins may be traced even farther back to Alan Turing's work, which includes the well-known Turing test, Allen Newell, and Herbert A. Simon.<sup>693</sup> With IBM's Deep Blue chess computer, which became the first machine to defeat the reigning chess world champion Garry Kasparov in a match in 1996, artificial intelligence captured the attention of the global audience. AI algorithms have been employed in data centres and on supercomputers for many years. Because of the advent of Big Data and advances in computer power, it has now permeated the commercial environment and public discourse.

By the 1950s, a generation of scientists, mathematicians, and philosophers had culturally adopted the notion of artificial intelligence (or AI). Alan Turing, a young British polymath who investigated the mathematical possibilities of artificial intelligence, was one of these individuals. Why can't robots solve issues and make decisions the same way people do? Humans, according to Turing, utilise both reason and available knowledge while making

<sup>692</sup> Kaplan, Andreas, and Michael Haenlein. "Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence." 62.1 *Business Horizons* 15-25 (2019)

<sup>693</sup> Ekmekci, Perihan Elif, and Berna Arda. "History of Artificial Intelligence." In *Artificial Intelligence and Bioethics*, 1-15. (Springer, Cham, 2020)

decisions and solving issues. This method was utilised in his paper published in 1950 titled Computing Machinery and Intelligence. In this study, he outlined how to create intelligent machines as well as how to evaluate their level of intelligence.

Unfortunately, words are cheap. What hindered Turing from starting work right away? The first step was for computers to go through some basic modifications. Before 1949, computers lacked a fundamental requirement for intelligence: they were unable to store commands; instead, they could simply carry them out. In other words, computers might be told what to do, but they wouldn't remember actually carrying out the instruction. Second, the cost of computing was quite high. At the beginning of the 1950s, the monthly rental of a computer could cost as much as \$200,000 USD. Only prestigious educational institutions and major technological corporations would have the financial resources to venture into these uncharted waters. A proof of concept was necessary, in addition to lobbying from high-profile individuals, in order to persuade funding sources that investing in machine intelligence was a worthwhile endeavor.

Today the objective of AI research is no longer to produce a robot as intellectual as humans, but rather to apply algorithms, heuristics, and approaches based on how the human brain solves obstacles. As a result, mechanisms such as Thomas Evans' Analogy and Melanie Mitchell's Copycat Architecture were created to handle problems with analogies. Mitchell's Copycat, for example, can answer the query "ABC is to CBA as DEF is to?"<sup>694</sup>

The ability to address such questions is not indicative of intelligence; rather, the development of systems that are capable of solving such problems is the foundation of research in the field of artificial intelligence and is undoubtedly an extremely useful step along

the path to creating computer software that is both superior and more efficient.

### RECENT DECADES HAVE SEEN A PROLIFERATION OF RESEARCH ON ARTIFICIAL INTELLIGENCE

Areas of particular importance include the following:

- Machine Learning
- Multi-Agent Systems
- Artificial Life
- Computer Vision
- Planning
- Playing Games (chess in particular)

This prevalence has more than justified the work of the past 70 years.

The technique by which AI "learns" is typically through human instruction or Machine Learning, in which the bot learns by processing data on its own. For example, if a bot notices that you appear to drive to the same spot at the same time every day, it may begin to monitor for traffic and weather conditions to offer you with an approximate driving time.

The development of robots' skills to learn by observing human activities has been a game-changing development in AI. Nvidia showcased a robot that does tasks in real world environments by observing how the jobs are completed, a different and more hands-off approach than how robots are typically programmed.

In a related development, a bot software named AlphaGo educated itself sophisticated methods for playing the game Go with no user intervention or assistance. This highlights an increasing trend of AI that can function independently of human knowledge.

### AI AND CAREGIVERS

Many countries throughout the world are on the verge of a disaster in terms of having adequate caregivers for elderly populations. The scarcity is expected to worsen as the massive baby

<sup>694</sup> Mitchell, Melanie. *Analogy-making as perception: A computer model*. (MIT Press, 1993.)

boomer population hits their retirement years.

To make up for the gap, artificial intelligence is being developed. The Japanese government, in particular, is pushing to increase acceptance of technology that can take the place of human nursing and caregiving. Japan is expected to have a 3,70,000-caregiver shortage by 2025, therefore companies are focusing on basic uses of AI technology. A robot, for example, may assist a person in getting out of bed or estimate when a patient would need to use the toilet.

dealing with is potential resistance to robot assistance. Wearable mobility help gadgets and technology that directs individuals to the bathroom at what it predicts is the proper moment are among the next research objectives.

#### **AI-BASED CYBERSECURITY**

Since it became vital, cybersecurity has been a topic of widespread interest. The potential dangers that could be posed to sensitive data and networks increase in tandem with the progression of technology. There is a rising interest in using artificial intelligence tools to strengthen cyber security. The professionals who use it have high hopes that it will hasten the detection of problems, boost the speed with which they respond to incidents, pinpoint and communicate potential hazards, and help them maintain optimal situational awareness in general.

Magnifier is a new artificial intelligence tool developed by Palo Alto Networks that focuses on behavioral analytics. Through the utilization of both structured and unstructured Machine Learning models, it enhances threat detection capabilities.

Additionally, there is Alphabet, which is the parent company of Google and has established Chronicle, a platform for cybersecurity intelligence. Chronicle is a data powerhouse for cybersecurity that enables users to search and find information more quickly. The foundation of this argument is that security teams already have access to the information they want within

their systems, but that information is typically obscured because there are millions of data centres. The search capabilities have been improved by machine learning, which has led to a speedier search.

#### **AI DIAGNOSTICS FOR X-RAYS**

Medical technology is an area suitable for AI advancement. Diagnostics, for example, has traditionally relied on human knowledge and ability to understand and interpret test or imaging data. This inevitably causes some sort of latency in processing and opens the door to human mistake.

There are significant hurdles in the deployment of AI for diagnosis. For example, the AI must be trained to correctly interpret results under human supervision, and teaching the detection of unusual illnesses is challenging owing to a lack of pictures.

A recent breakthrough essentially "used Machine Learning to perform Machine Learning" by complementing AI training with computer-generated x-rays. "We are generating simulated x-rays that reflect certain unique scenarios so that we can combine them with reality x-rays to produce a large enough database to train neural networks to recognise these conditions in other x-rays," said Google scholar Shahrokh Valaee. This innovation brings the potential of AI doing diagnostics one step closer to reality.

#### **ARTIFICIAL INTELLIGENCE TRENDS IN APP DEVELOPMENT**

App development is not immune to the latest advances in artificial intelligence. Developers are utilising new and sophisticated AI technologies to improve both the app development process and the User Experience. These are some of the most significant ways in which AI is influencing app development.

#### **ARTIFICIAL INTELLIGENCE IN SMARTPHONE APPS**

AI is making its debut in a wide spectrum of smartphone apps aimed at average users. According to Gartner, by 2022, 80 percent of smartphones will have on-device AI capabilities (compared to the 10 percent that have these capabilities right now). As a result, Artificial

Intelligence represents a significant potential for app developers of all sorts. Here, are just a few that are currently in use:

- **Google Assistant** – To activate your assistant, hold down the home button on your Android phone or speak "Okay Google" aloud. You may then use your hands to send messages, check appointments, listen to music, and do a variety of other things.
- **Socratic** – Math assistance is available! Socratic is a smart teaching software that analyses a picture of a math issue to explain how to solve it.
- **Microsoft Pix** – Everyone wishes they could snap and share the ideal photograph. Microsoft Pix assists by recording 10 frames each shutter click, utilising artificial intelligence to choose the best three, and then eliminating the others, saving you storagespace.

#### FINTECH ARTIFICIAL INTELLIGENCE

In the last decade, FinTech has seen a lot of unique technologies. As new applications arise, traditional financial institutions have the problem of keeping up with technology. AI is another industry game changer.

AI can shorten the processing times of financial institutions. Your bank, for example, most likely offers an app that allows you to snap a check for deposit. The cash are frequently accessible quickly, thanks in part to AI's ability to interpret checks. This eliminates the requirement for a human operator to read and deposit the check precisely.

Machine Learning is also assisting in the identification of fraud. Pixmettle, for example, is creating enterprise-level Artificial Intelligence solutions to assist in identifying things like duplicate expenditures and business policy infractions.

Chatbots are another type of software that are gaining popularity. There are apps that have been built specifically to connect financial accounts with Facebook Messenger, such as Trim. These apps allow users to ask questions,

make cancellations, or acquire reports through the app itself, and they are used by many banking applications as part of their customer care suite.

As previously said, FinTech is also suitable for AI cybersecurity. Artificial intelligence is scalable and capable of swiftly analyzing vast volumes of data, increasing the security of digital systems and assisting clients in protecting their financial assets.

#### USE OF AI TOOLS BY PRIVATE ENTITIES AND PSU'S AROUND THE GLOBE

The next wave of the digital revolution is about to be triggered by artificial intelligence, and businesses need to start preparing for it now. We are already witnessing clear benefits for a few organisations that were early adopters of digital transformation, which makes it more critical than ever for others to accelerate their own digital revolutions. Our findings are centred on the following artificial intelligence (AI) technology systems: robotics and autonomous vehicles, computer vision, linguistics, virtual assistants, and machine learning, which includes deep learning and is the foundation for many recent breakthroughs in other AI technologies.

AI investment is rapidly increasing, led by digital behemoths such as Google and Baidu. According to predictions tech titans spent \$20 billion to \$30 billion on AI, with 90% of it spent on R&D and implementation and 10% on Artificial Intelligence acquisitions.<sup>695</sup> Venture Capital and Private Equity finance, grants, and start-up investments all increased swiftly, albeit from a low base, to a total of \$6 billion to \$9 billion. Machine learning, as an enabling technology, garnered the most investment from both internal and external sources.

The median return on investment from artificial intelligence technology has fluctuated between 17% and 18% for businesses across all industries. Some people are better than others at

<sup>695</sup> Kshetri, Nir. "Artificial intelligence in developing countries." *22.4 IT Professional* 63-68 (2020)



converting investments into financial gains. While these values are estimates based on self-reported data, they illustrate that executives across sectors believe cognitive technologies generate value.

Tech businesses are investing heavily in artificial intelligence and reaping big benefits. They are also the driving force behind cognitive technologies, creating them for a market that is already expected to provide a competitive advantage through enhanced consumer insight, increased workforce productivity, and rapid innovation. According to International Data Corporation's (IDC) Worldwide Artificial Intelligence Investment Guide, worldwide spending on AI systems will increase from \$85.3 billion in 2021 to more than \$204 billion in 2025. According to them, the compound annual growth rate (CAGR) for the period 2021-2025 would be 24.5 percent.<sup>696</sup>

This includes industry titans like Google, Microsoft, and Facebook, as well as hundreds and thousands of start-ups.<sup>697</sup> AI has also produced profits by enhancing operations and providing a better consumer experience. Customers abandon their search for a movie after 90 seconds, according to Netflix. By utilising AI to improve search results, Netflix minimizes dissatisfaction and improve customer satisfaction, conserving US\$1 billion a year in potential monetary losses.<sup>698</sup>

Robust returns are not confined to tech firms. AI is being used to increase the efficiency of production by both established businesses and new start-ups. For example, industrial corporations such as GE and Siemens are using data from "digital twins" of their machinery to discover trends and abnormalities and forecast

problems.<sup>699</sup> Companies like these are adopting AI to enhance business processes, which are important benefits for corporations.

Although incorporating AI into existing goods and services remains the most popular goal, there has been a move toward internal operations. In reality, operational change is frequently necessary before such convergence can take place.

Companies in health care and life sciences are investing in AI, but data reveal that they are seeing less return. Certainly, several "big bang" health-care ventures have fallen short thus far. Despite several high-profile failures, breakthroughs in sectors as diverse as radiology and hospital claims management demonstrate that AI has significant promise for contribution in health care.<sup>10</sup>

In a recent development in San Francisco, California **Freenome** has used AI in screenings, diagnostic tests and blood work to test for cancer. By deploying AI at general screenings, Freenome aims to detect cancer in its earliest stages and subsequently develop new treatments.

## ADVANTAGES OF AI's CAPABILITIES

### 1) ERROR REDUCTION:

The use of artificial intelligence assists us in reducing the number of errors that occur and enhances the likelihood that we will achieve greater precision. There are many fields of study that make use of artificial intelligence, one of which is space exploration. Intelligent robots are used to fill in the information before they are dispatched to explore space.

They are more durable than other machines and have a stronger capacity to handle hazardous situations due to the fact that they are built of metal.

<sup>696</sup> Minh, Dang, et al. "Explainable artificial intelligence: a comprehensive review." *Artificial Intelligence Review* 1-66 (2021)

<sup>697</sup> Insights, C. B. "AI 100: The artificial intelligence startups redefining industries." (2021)

<sup>698</sup> Fischer, Kristian, Christian Herglotz, and André Kaup. "On versatile video coding at uhd with machine-learning-based super-resolution." *2020 Twelfth International Conference on Quality of Multimedia Experience (QoMEX).IEEE* (2020)

<sup>699</sup> Wang, Lu, et al. "Digital twin-driven smart supply chain." *Frontiers of Engineering Management* 1-15 (2022) <sup>10</sup> Quinn, Thomas P., et al. "The three ghosts of medical AI: Can the black-box present deliver?." *124 Artificial intelligence in medicine* 102158 (2022)

2) FASTER DECISIONS:

Using Artificial Intelligence can help in making faster decisions and taking quicker actions.

3) TAKING RISKS ON BEHALF OF HUMANS:

Artificial intelligence is used in mining and other fuel exploration processes. Not only this, these complex machines can also be used for exploration of the ocean floor as they are beyond human limits.

4) DAILY APPLICATION:

The use of computational approaches for the automation of thinking, learning, and perception is becoming increasingly commonplace in our day-to-day lives.

Cortana or Siri, depending on the user's preference, are constantly available to assist us with Windows 10. When we travel long distances, we rely on road maps and sometimes supplement them with GPS.

5) DIGITAL ASSISTANTS:

Avatars, which are either replicas or digital assistance, are used by highly advanced enterprises. Which are truly capable of interacting with users while simultaneously eliminating the requirement for human resources.

Artificial intelligence, being composed entirely of artificial thinking, is not sidetracked by feelings. The robots are able to rationalize, and the program is able to make the appropriate choices, when there is no emotional component present all.<sup>700</sup>

6) REPETITIVE JOBS:

The intelligence of machines now performs tasks that are too repetitive for humans to handle. Machines are capable of thinking faster

than humans and can perform multiple tasks at the same time.

The intelligence of machines can be used to do jobs that could be hazardous. In contrast to human beings, their parameters are malleable. Their timing and pace are entirely determined by the parameters. When people engage in activities such as operating computer-controlled robots or playing computer games, they are in fact having communication with forms of artificial intelligence.<sup>701</sup>

7) NO BREAKS:

Unlike humans, machines do not require frequent rest and refreshments. They are programmed for long hours and neither get bored or distracted or tired.

### DATA PROTECTION LEGISLATION IN LIGHT OF 21<sup>ST</sup> CENTURY TECHNICAL DEVELOPMENTS

As one enters the twenty-first century, one is frequently required to disclose personal information on various digital platforms. These portals, on the other hand, have their own privacy policies. The **ECPA** (Electronic Communication Privacy Act of 1986) governs how web platforms in the United States operate, whereas the General Data Protection Regulation governs how web platforms in the European Union operate (**GDPR**).

The necessity of privacy and data security is becoming more acknowledged as more social and commercial activities take place online. 128 of the 194 nations have enacted legislation to provide data and privacy protection.

Africa and Asia have comparable adoption rates, with 55 percent of nations adopting such laws, including 23 least developed countries.<sup>702</sup>

<sup>700</sup> Mikalef, Patrick, Siw Olsen Fjorftoft, *et.al.*, "Developing an artificial intelligence capability: A theoretical framework for business value." *Journal of International conference on business information systems*, 409. (2019)

<sup>701</sup> Agrawal, Ajay, Joshua Gans, *et.al.*, *Prediction machines: the simple economics of artificial intelligence*. (Harvard Business Press, 2018)

<sup>702</sup> Rosenstein, Samuel. "Electronic Communications Privacy Act of 1986 and Satellite Descramblers: Toward Preventing Statutory Obsolescence." *76 Minn. L. Rev.* 1451 (1991)

- The **General Data Protection Regulation** (GDPR) is a regulation in the European Union (EU) and the European Economic Area (EEA) that governs data protection and privacy. It also handles personal data transfers outside of the EU and EEA. The primary goal is to improve people's control and rights over their personal data while also simplifying the regulatory environment for international trade.<sup>703</sup>
- **China's Personal Information Protection Law** (PIPL) is expected to transform the present environment of disparate personal data protection regulations. Its goal is to clarify the laws for processing personal data, as well as data handlers' and processors' duties and data subjects' rights.<sup>704</sup>
- Recently, **bilateral and multilateral agreements** on privacy and transborder data flows have been drafted, both between nations and within multilateral organisations.
  - The United States-Mexico-Canada Agreement (**USMCA**) is an example of a bilateral agreement.
  - The Organization for Economic Co-operation and Development (**OECD**), Asia-Pacific Economic Cooperation (**APEC**), Council of Europe, and others are examples of multilateral organisations.

Although decisions are made by agreement, the members' promises are not legally binding. The scale of involvement is too small to be considered a true global consensus, and these frameworks also lack the flexibility to adapt to local demands.

The Information Technology Act of 2000 is the legislative framework that governs this in India. However, there are no laws in place to define the duty of the internet service provider and the online domain that holds the data, and no distinction is made between purposeful and unintentional breaches. The Credit Information

Companies Regulation Act of 2005 is another piece of financial regulation.

The essential problem comes down to trust, because no amount of technology measures can replace trust as the most important factor in protecting data privacy, which is frequently violated. Data is becoming a valuable asset for businesses that have developed a data economy, yet we frequently see privacy breaches in the form of data transformations. It has been reported that users have given credit card information, resulting in large sums of money being transferred to an unknown individual or scam calls being produced as a consequence of a recent purchase on an online shopping website. This generally happens as a result of a data breach. Organizations misconfiguring cloud services or neglecting to install sufficient access restrictions, such as password requirements for public-facing web services or apps, are often involved in these incidents.

### **CONFLICT BETWEEN AI AND DATA PROTECTION LEGISLATION**

The world has been changing rapidly since the turn of the century. Globalization, innovation and demographic changes have affected our ability to think, understand and make decisions. Today the Internet is not seen as just a tool of entertainment but it is rapidly affecting our work and life. The 21st century is being considered as the era of technology and modernity, today the global discussion is also focused on data and its related issues. In such a situation, experts believe that if India wants to play an important role in shaping the digital landscape of the 21st century, then it will have to prepare a legal framework regarding data and its security, because data security is the key to empowerment, progress and innovation. is the key.<sup>705</sup>

- It may be noted that the Union Cabinet chaired by Prime Minister Modi has approved the Personal Data Protection (PDP) Bill, 2019 and

<sup>703</sup> Voigt, Paul, and Axel Von dem Bussche. "The Eu General Data Protection Regulation (GDPR)." *1st Ed., A Practical Guide*, (Cham: Springer International Publishing, 2017)

<sup>704</sup> Determann, Lothar, et. al., "China's draft personal information protection law." Vol. 4, no. 3 *Journal of Data Protection & Privacy* (2021)

<sup>705</sup> Guibault, Lucie, et. al., *Safe to be open: Study on the protection of research data and recommendations for access and usage*. (Universitätsverlag Göttingen, 2013)

with this the first step towards data protection in India has also started. The Bill is expected to be placed before Parliament in this winter session.

### DATA AND ITS IMPORTANCE

- In colloquial language, the word data is often used for messages, social media posts, online transfers and search history, etc.
- Technically, data is defined as a set of information that a computer can easily read.
- Note that this information can be in documents, images, audio clips, software programs or any other format.
- Any data at its most elementary level is a set of 1's and 0's, known as binary data, for example 011010101010.
- In today's time this store of personal information has become an important source of profit and various companies are collecting and using it with the aim of making the experience of their users pleasant.
- Governments and political parties also use a wealth of information to gain advantage in policy making and elections. In this context, the importance of data becomes even greater.
- However, it is also quite risky because the information given by us creates a virtual identity which can also be used to harm us.

### EXISTING RULES ON DATA COLLECTION

- India currently does not have any specific laws to prevent the use and misuse of personal information. However, India does have some relevant laws in this regard, including the Information Technology Act, 2000 and the Indian Contract Act, 1872. The Information Technology Act, 2000 provides for payment of compensation and punishment in case of wrongful disclosure and misuse of personal data.
- It is known that Justice B. N. A high-level committee headed by Srikrishna had prepared

a draft on data protection in the year 2018, but due to inter-ministerial talks, the resolution could not be passed by Parliament at that time.

### THE DATA PROTECTION DRAFT OF SRIKRISHNA COMMITTEE

- In July 2017 to recommend a framework for securing personal data in the digital world was headed by Justice B. N. A 10-member committee was set up under the chairmanship of Shri Krishna.
- The draft seeks to regulate or regulate the processing of personal data by data fiduciaries (entities that collect and control data).
- In the draft, many rights were given to the citizens in relation to their data such as amending the data or accessing the data stored with the fiduciary etc.
- The draft provided that every data fiduciary would have to keep a 'serving copy' of all personal and sensitive data in a server located in India.
- Along with this, provision was also made in this draft to set up a Data Protection Authority (DPA) to make and oversee specific rules for all data fiduciaries in different sectors.

### DATA PROTECTION (PDP) BILL, 2019

- The data protection bill approved by the Union Cabinet differs from the version prepared by the Srikrishna Committee on three points.
- The draft prepared by the committee provided that all fiduciaries would have to store copies of all personal data in India. It is known that this provision was heavily criticized by foreign technology companies. Under the new bill, this condition has been done away with, only individual consent is required for data transfer abroad.
- However, similar to the draft bill,

there is a provision that sensitive personal data should be stored only in India.

- Also, it can be processed abroad only after complying with certain conditions including the approval of the Data Protection Agency (DPA).
- According to the bill, it has been made mandatory for fiduciaries to provide non-personal data to the government as and when required. Note that the draft prepared by the committee does not apply to such data.
- The bill makes it mandatory for social media companies to develop their own user verification mechanism, unlike the previous draft which had no such provision.

#### ISSUES WITH THE DATA PROTECTION BILL

- Civil society organizations and social activists have criticized the government's exceptions to the bill, saying it allows the government to monitor its citizens.
- Many experts are terming the Data Protection Bill as a double-edged sword, in which one talks about keeping the data of Indians safe, while on the other hand it allows the central government to monitor citizens by giving concessions.
- At the same time, many experts are also agreeing that data security cannot be ensured through data localization alone.
- The Internet and Mobile Association of India (IAMAI) had recently pointed to the ambiguities in the bill, saying that it may create unnecessary problems in future.

#### CONVICTION

According to statistics, India's population of more than 1 billion has about 500 million active web users and India's online market is the largest market after China. In such a situation, it becomes imperative that efforts are made to regulate the online market. It is worth

mentioning that the government is trying to address the issue of data security and its protection through the recent Data Protection Bill, although it cannot be denied that there are some shortcomings in the recent Bill. It is necessary that these shortcomings should be seriously considered and suitable alternatives explored in consultation with all the stakeholders.

#### IS THE ETHICAL USE OF AI POSSIBLE?

Life has evolved from the regulation of life by humans doing things on their own to machines achieving the same for them. The era of people who believe in hard work to smart work has been reversed. This is the new era of technology. With the advent of computers, internet and broadband, mobile phones, printers, etc., the life of human beings has become easier.

The use of artificial intelligence is included among these recent technological developments. The fields of artificial intelligence and robotics are often credited to John McCarthy and Alan Turing, who are known as the field's founding fathers. Artificial Intelligence focuses on creating machines that can accomplish activities that require human intelligence. Machine learning, deep learning, and many more algorithms are used by AI to carry out tasks in a human-like manner.<sup>706</sup>

#### CHALLENGES

Healthcare, e-commerce, the defence sector, autonomous vehicles, the legal profession, education, and many more fields are all making use of AI because of its ability to collect and process many sorts of data. Just as the proverb goes, "with great power comes great responsibility," so too does AI require ongoing oversight to prevent misuse.

<sup>706</sup> Boddington, Paula. *Towards a code of ethics for artificial intelligence*. (Cham: Springer, 2017)

There are a lot of perks and comforts, but there are also a lot of negatives that threaten their existence.

The safety and integrity of sensitive information is the primary concern in the field of artificial intelligence. Artificial intelligence is wholly reliant on large amounts of data, and since data is easily accessible, the risks connected with using it must be taken into mind. It's possible that sensitive user information will be exposed in the process, which could be risky. In light of the fact that artificial intelligence was created by humans as well, there is a pressing need for more stringent legal protections in order to mitigate the potential for harm.

The second issue is that there is no one to be held responsible for the activities of AI. There is an issue that has to be answered regarding who is to be held responsible for the mistakes that are made by the AI that result in a particular loss for the users. There is no one who can be held accountable for mistakes.

Third, AI-powered autonomous weapons are appealing for use in strategic conflict preparation. This makes it challenging to manage different types of AI-warfare in the future, as the consequences of its misuse might be catastrophic.

In light of the potential dangers posed by AI, it is urgent that new rules be passed to establish a safe space for its development and usage. It is critical to implement ongoing regulation in order to cut down on the risk of being exposed.

The phenomenon of public sector policy and law governing, shaping, and fostering AI is known as "regulation of artificial intelligence." It is a matter that needs to be regulated by both national and international law in settings where there is a significant amount of danger. The United Nations does not place a high priority on AI law despite the fact that it has become a global issue.

One of the regulatory authorities currently working on the framework of laws and amendments relevant to artificial intelligence is the European Union (EU). The General Data Protection Regulation (GDPR) is one of the legislation enacted by the EU. Its purpose is to safeguard users' personal information while also ensuring their privacy and safety. It covers a variety of rights and duties, laws and principles, and remedies with regard to the many different types of problems that could occur.

### NEW EU RESOLUTION

The European Commission proposed AI legislation on April 21, 2021, with the goal of introducing a global regulatory framework to add a legal dimension to future advancements in the field of AI. Users' privacy and civil liberties in relation to AI systems is a primary concern. The main focus is on the following provisions:

- Mandatory Rules that must be followed by everyone who uses, provides, or distributes AI, regardless of their location.
- Enough guidelines for AI with high risk.
- Restrictions and bans on as-yet-undefined artificial intelligence systems to forestall the spread of terrorist plots and other potentially harmful outcomes.
- A severe rate of fine that might go up to 30 million euros.
- Rise of National Supervisory Agencies for Governance.
- Market surveillance of AI systems by appropriate agencies.

Analyzing, experts say that controlling AI systems across the world will be very difficult. Thus, the desire to execute and enforce a worldwide legal framework, with the capacity to protect the interests of human beings.

## REGULATION OF ARTIFICIAL INTELLIGENCE IN INDIA

The government is concerned about the risks posed by AI because of its rapid development and potentially endless applications. The lack of a comprehensive AI law in India is a source of additional concern for the administration. Considering its prominence on the national stage, action is required.

The pace at which AI is being adopted and promoted in India right now is much more than anyone had anticipated. The rapid speed of innovation in the application of AI has brought about the requirement for regulatory oversight.

In 2017, the Indian government took the first step toward protecting its citizens by establishing privacy as a fundamental right in the country's constitution. A recommendation to enact a law requiring confidentiality was made by the Justice Srikrishna committee to the government. In 2019, a Personal Data Protection Bill was prepared, and once it is approved by both houses of Parliament, it will officially become a law and go into effect.

The Government of India has given priority to the creation of Digital India and has started various AI related schemes. According to NITI Aayog, three cogent principles have been adopted:

1. undertake projects that involve full proof-of-concept
2. of AI, create an AI environment and ecosystem in India.
3. Working together with experts and other contributors.

In 2018, the Planning Commission of India and the National Institution for Transforming India (NITI Aayog) unveiled the National Strategy on Artificial Intelligence (NSAI). Several different regulations concerning the use of AI were dissected in this discussion. The following are

recommendations made by NITI Aayog:

- "Setting up of a panel consisting of the Ministry of Corporate Affairs and the Department of Industrial Policy and Promotion to look into the necessary regulations in intellectual property laws."
- "Formation of attractive IP systems for AI upgradation."
- "Introducing legal networks for data protection, security and privacy."
- "Creation of ethics related to each area."

The ministry and the ministry of information technology formed four committees to look at various ethical concerns. A new committee focusing on systematic and level AI has been established by the Bureau of Indian Standards. The government is establishing numerous security regulations to reduce potential dangers from its dealings with the public.

AIRAWAT, the Artificial Intelligence Research, Analytics, and Knowledge Assimilation Platform, is another project done by NITI Aayog. In this method paper, Senior Consultant Anna Roy advises implementing AI-specific cloud computing architecture. Considering that India has relied on AI that is hosted in the cloud, AIRAWAT discusses the needs for the best use of AI.

- A dedicated AI infrastructure and environment will allow the Center of Research Excellence, International Centers for Transformational AI, meet the computing needs of startups, researchers, students, and innovation hubs.
- Airavat will be carried out as planned by an interdepartmental task team backed by representatives from several sectors.
- The task force will monitor funding and program the approach.
- AIRAWAT will be supported monetarily by the National Supercomputing Mission.

- This will encompass all aspects of the process, such as the instruments, the systems, the employees, the maintenance, and the updates.

### RESPONSIBLE ARTIFICIAL INTELLIGENCE

In order to form an oversight body and put into practise the ideas of Responsible AI, NITI Aayog has developed documents for 2020 that include the following topics:

- Oversight and operationalization of principles related to Responsible AI.
- Exceptional clarity in terms of the design, structure, and procedure in order to establish specific standards.
- The establishment of legal and technological networks.
- Providing education and making aware about responsible AI.
- Creating new technologies and tools for a responsible AI.
- Representation of India at the world level.

These drafts will continue to be updated as per the dynamics and will never be final.

### REGULATION OF AI

Weapons Armed drones, cyber-attack software, battle robots, slaughter bots, and robotic weaponry are just some of the new types of weapons being developed with the help of artificial intelligence. Lethal Autonomous Weapons, sometimes known as LAWS, are a category of autonomous military weapons that function on their own with the help of AI. Although the use of such weapons is not prohibited, there are ongoing regulations concerning their use in many countries. Robot wars have the potential to cause enormous destruction if the laws governing such weapons

are not strictly enforced. As a means of overcoming these obstacles, efforts can be made to control and govern the law through the use of international treaties and the strategic utilization of legal frameworks.

The use of artificial intelligence (AI), as well as its scope and capabilities, are expanding at a phenomenal rate all over the world. The usage of AI has been embraced by both the public and private sectors. The application of artificial intelligence is viewed differently across nations and cultures, and each has its own approach to defining what it entails. Complexity increases with expansion, hence guidelines have been established for AI. Although artificial intelligence can be found everywhere in the form of codes and smart technologies, it is difficult for the average person to interpret these codes.<sup>707</sup>

In addition, the code may be difficult to govern, while the application of AI may be subject to regulation at various points. There is a reasonable use of AI everywhere, and it is well-known for the effective way it is carried out. It is feasible, for instance, to identify people through the use of face recognition technology, but buildings cannot be recognised in this way.

Regulating AI on a global scale can be challenging, which is why we need national-level governance that is familiar with and prepared for the systematic application of AI.

Artificial intelligence (AI) is a smart machine that replicates the intelligence and conduct of humans; therefore, it needs to be regulated in order to safeguard a balanced perspective on the world. When the regulations are implemented, the advantages will be maximised, and the related dangers will be minimised. It is of the utmost importance to understand that artificial intelligence (AI) itself is not something that causes problems; rather, it is the abusive application of AI that causes

<sup>707</sup> Wallach, Colin Allen, et. al., *Moral machines: Teaching robots right from wrong*. (Oxford University Press, 2008)



problems for people.

Because of this, artificial intelligence has the potential to pose an ongoing risk to humankind if we do not regulate it.

### REFORMATION OF AI LEGISLATION AND FRAMEWORK

It would appear that there is an unquestionable need for artificial intelligence to be subject to some kind of regulation. There is no denying the complexity of the subject matter, which may be attributed either to the advanced nature of technology or to the fact that the structural consequences of technology have an effect on society norms. The combination gives the appearance of a problem that has not yet been defined in detail to its fullest extent.

### AI GOVERNANCE BY HUMAN RIGHTS-CENTRED DESIGN, DELIBERATION AND OVERSIGHT (YEUNG ET AL., 2020)<sup>708</sup>

The Human Rights-Centred Design, Deliberation, and Oversight model was developed by Yeung et al. (2020) to deal with AI-related ethical challenges with legal support. The approach was built on international human rights-based norms and was offered as the most viable governance framework to deal with ethical standards.

The suggested model, based on a global perspective, incorporates a suite of technological, organizational, and assessment tools and procedures engaging several stakeholders. The concept proposes human-rights-based norms as the cornerstone for ethical criteria with which AI systems must demonstrate compliance:

a) Design and development that considers the perspectives of stakeholders. A redesign

should be considered if an evaluation reveals "high" or "very high" dangers to human rights

b) Constant testing and formal evaluation to guarantee adherence to human rights principles. Throughout the entire system's development life cycle (design, specification, prototype, development, and implementation), this is something that happens routinely. A method for systematic and frequent post-implementation monitoring would be developed. As part of this process, the artificial intelligence system would be put up for review by a public body, which would be provided with the pertinent documentation and reports.

c) Independent monitoring by a technically competent external entity endowed with legal inquiry and sanctioning capabilities.

d) Auditability backed by traceability and evidence that the AI system is performing as intended and was correctly documented throughout its full development life cycle.

### The authors emphasize the need of laws and procedures that cover all of the model's stages. AVOIDING BIASES AND DISCRIMINATION (LIN ET. AL., 2020)<sup>709</sup>

The framework investigates a unique AI-assisted intervention based on a bidimensional approach to increase the effectiveness of bias-reduction intervention procedures in situations of implicit biases.

The first dimension encompasses the various types of data that AI may deliver to its users, including descriptions of the current state of events, projections of how things will unfold in the future, and estimates of how much a given action will be worth (prescriptive information). It holds the belief that all interventions are prescriptive, and that knowledge-based systems (KBS) will determine whether or not to act based on the manner in which the simulated results are evaluated.

In the second dimension, an artificial intelligence system can influence the decision-

<sup>708</sup> Yeung, Karen, Andrew Howes, and Ganna Pogrebna. "AI Governance by Human Rights-Centered Design, Deliberation, and Oversight." *The Oxford Handbook of Ethics of AI* 77-106 (2020)

<sup>709</sup> Lin, Patrick. "The robot car of tomorrow may just be programmed to hit you." *Machine Ethics and Robot Ethics*. Routledge 507-509 (2020)

making process in several stages by participating as part of an interactive process (input-based interventions, output-based interventions, and cognition-based interventions). It is a sort of software-based regulation that the industry and service providers may apply as part of their internal operations.

### UNIVERSAL DECLARATION OF HUMAN RIGHTS AS A FRAMEWORK

Regulating artificial intelligence on a global scale using a myriad of distinct frameworks, one for each unique area of ethics, is not sufficient. This holds true for both the public and private sectors. Because of this gap, many different cultures have adopted the Universal Declaration of Human Rights as a mature approach over the years.<sup>710</sup> In 2011, the United Nations Human Rights Council updated their principles on business and human rights, publishing them as the UN Guiding Principles on Business and Human Rights (United Nations, 2011). These principles place greater emphasis on the roles and responsibilities of private firms in human rights protection.<sup>711</sup>

Governments have a responsibility to safeguard citizens from abuses and infringements of their rights by other governments and non-State entities, including the business sector, under the human rights framework. The approach of Donahoe and Metzger centres on the human individual as the focal point of administration and society.<sup>712</sup> It aims to address AI's possible consequences, such as:

- The right to equal protection and fair treatment to data asymmetries and guaranteeing impartiality in machine-based decisions

- Both the right to life and the right to personal security are in jeopardy when it comes to autonomous weapons that operate independently of human control.
- The right to an effective remedy for violations and infringements of rights, including transparency, justice, and accountability, in situations in which the use of AI systems has the potential to adversely affect people's rights.
- The right to privacy—addresses the erosion of privacy in data-driven society and the necessity to safeguard individually identifiable information.
- Human employees' rights to work and a decent quality of living are shaping governance considerations concerning AI's displacement of human labour.

### ARTIFICIAL INTELLIGENCE AND INTERNATIONAL LAW

The past two decades have seen incredible breakthroughs in artificial intelligence (AI), and the good results and acceptance rates are testimony to the value that AI is poised to deliver in the near future. Because the method that AI takes is diverse, it has already made its way into a wide number of businesses, fields, and market niches.

The use of artificial intelligence (AI) and machine learning is gaining popularity in the realm of international relations, as well as among governments, ministries, diplomats, and policymakers. Ethics, disruptions to the economy, and security are all aspects of foreign policy. As a result of governments turning to algorithms to foresee events that are essential in business and geopolitics, there has been a quick shift in the nation's foreign policy. At this time, artificial intelligence is being utilised to analyse and generate predictions on the actions of world leaders. This is a relatively new application of AI that receives little attention.

The world is currently at a crucial crossroads in terms of national security and the conduct of

<sup>710</sup> Kunz, Josef L. "The United Nations Convention on Genocide." Vol. 43, no. 4 *American Journal of International Law* 738-746 (1949)

<sup>711</sup> Wettstein, Florian. "Normativity, ethics, and the UN guiding principles on business and human rights: A critical assessment." Vol. 14, no. 2 *Journal of Human Rights* 162-182 (2015)

<sup>712</sup> Donahoe, Eileen, and Megan MacDuffee Metzger. "Artificial intelligence and human rights." Vol. 30, no. 2, *Journal of Democracy* 115-126 (2019)

war as a direct result of the development of artificial intelligence, supercomputing, and data analytics. These qualities, along with others found in weapons systems like hypersonics, are quickening the tempo at which combat is performed as well as the rate at which a battle may become more intense. This new style of warfare, which has been given the name "hyperwar" by Amir Husain and John R. Allen, would incorporate different levels of autonomy, including the prospect of lethal autonomous weaponry in which humans are not involved in the decision-making process.

In spite of the fact that prominent scientist Stephen Hawking and technology entrepreneur Elon Musk anticipated the perils of artificial intelligence and the demise of the human race as a result of its growth, breakthroughs in AI have placed new themes on the international agenda, challenged geostrategic relations, acted as a tool for diplomats and negotiators, and created new opportunities as well as concerns regarding human rights. There are parallels to be drawn between diplomacy and strategic board games. When one country makes a move, the others retaliate, but ultimately, everyone wants to win.

Although artificial intelligence has not yet been included on the agenda for India's foreign policy, China has already established an AI foreign policy toolbox and has a "New Generation Plan" to become the world leader in AI by the year 2030. India has not yet included AI on its agenda. There are numerous additional noteworthy examples of how the AI revolution has entered the foreign ministries of countries such as Russia, Canada, and the United States. The Russian government says that AI will decide who "rules the planet" in the future. The "American AI effort" has been given the green light thanks to a directive that was issued by Donald Trump, who served as president of the United States.

In the realm of foreign policy, the toolbox of AI includes elements such as policymaking, public

diplomacy, involvement at both the bilateral and multilateral levels, as well as information collection and analysis.

In recent years, neural networks and deep learning have provided excellent research outputs for risk assessment and prediction of events such as terrorist attacks and political unrest. These outcomes have been produced using neural networks and deep learning. Data mining has the potential to simplify political forecasting, which, in turn, could lead to improved knowledge and forecasting of political, economic, and social trends. In the context of negotiations, artificial intelligence (AI) could be useful for analyzing and forecasting the outcomes of prior and ongoing discussions. In addition, language processing algorithms will make it easier for nations to communicate with the governments and embassies of other countries by lowering the linguistic barriers that currently exist between them.

It is also possible that advancements in AI may help international humanitarian efforts by providing support for activities including the monitoring of elections and the maintenance of peace. Even transfers of financial aid could be protected from fraudulent activity with the use of AI's ability to recognize anomalies.

## CONCLUSION

As we have also mentioned above, artificial intelligence started in the 1950s, but its importance was recognized in the 1970s. Friends, do you know, Japan first took the initiative and in 1981, The scheme called Generation was started. In this the outline of a 10-year program for the development of a super-computer was presented. After other countries also paid attention to this, Britain made a project named 'Elvi' for this. The countries of the European Union also started a program called 'Esprit'. After this, in 1983, some private organizations together established a consortium 'Micro-Electronics & Computer Technology' to develop advanced technologies applicable to Artificial Intelligence,

such as Very Large Scale Integrated Circuits, currently many big companies are involved in Artificial Intelligence. With the help of intelligence, it is working to improve its platform. Many companies are making huge investments in this technology. Artificial Intelligence Research Center is present in many places around the world. Machine learning is also a part of artificial intelligence, in which the machine based on AI learns itself from the experience of old data, keeps improving it and completes its tasks accordingly.

In this era of science and technology, Artificial Intelligence or Machine Intelligence is affecting almost every aspect of our life nowadays to help improve efficiency and enhance our human capabilities. The branch of computer science where machines do processes to simulate human intelligence and think humans are known as artificial intelligence. The process of simulating human intelligence involves the acquisition of rules for self-improvement, and the use of information to reach definite conclusions. Artificial intelligence covers some specialized applications such as machine vision, expert systems and speech recognition. AI is such a simulation that machines are given human intelligence, or rather, their brains are so advanced that they can think and work like humans. Here, for your information, let us tell you that this is done especially in the computer system. There are mainly three processes involved in this process and they are first learning, second is Reasoning and third is Self-Correction. If you try a particular application of AI then it includes an expert system, speech recognition and machine vision. AI or Artificial Intelligence is designed in such a way that it can think like humans, how the human brain first learns any problem, then processes it, decides what is the right thing to do and finally how to do it. While solving, think about it. In the same type of AI, machines have also been given all the features of the human brain so that they can do better work.

AI can be classified into two distinct parts, weak artificial intelligence: it is also known as narrow AI, which signifies a system designed or trained to perform a particular task, as weak AI. Virtual personal assistants like Apple's Siri and Amazon Alexa are included, and it also supports some video games like chess. These assistants will answer the questions you ask, Strong Artificial Intelligence: Strong AI, also known as Artificial General Intelligence. This type of intelligence works on human abilities. It is more complex and complex than weak AI, which helps them to solve a problem without human intervention. Such intelligence is used in hospital operating rooms and in self-driving cars.