

ARTIFICIAL INTELLIGENCE AS A CONTEMPORARY ISSUES IN ORGANISATIONAL BEHAVIOUR

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ABSTRACT

Artificial Intelligence (AI) poses historically unique challenges for organizational settings. In a world. There is no doubt, that Artificial Intelligent (AI) has a lot of contributions to the overall well-being of humanity and improving productivity, it is worth noting that there is also a negative impact associated with the use of the technology on ethical grounds ranging from privacy issue to lack of transparency. Quite a lot of work has been done to provide best practices in the development and use of these systems to gain the acceptance of the public; this is very essential for nations to exploit the full potential of AI. This work brings to the frontlines some of the risks/issues associated with AI from different pieces of literature and provides commonplace or leading principles and frameworks required to develop responsible AI or autonomous systems. The guidelines encourage stakeholders in the industry of developing AI systems to incorporate facilities that support transparency, privacy protection, accountability, and contestability. These guidelines are not new, but they are contextualized to suit ethics in AI. Above all, AI systems should not be seen as being equal to or greater than man, but rather be seen as augmenting intelligent systems to assist human who is the only moral agents. Keywords: Artificial Intelligence; Ethics; Principles; Guidelines; Issues. AI systems should not be seen as being equal to or greater than man, but rather be seen as augmenting intelligent systems to assist human who is the only moral agents.

Keywords: Artificial Intelligence, AI, AI-evolution, algorithms, cognitive robotics, emerging technologies, ethical issues, ethics, human robot interaction, international law, killing, legal personhood, organizational behavior and robotics

INTRODUCTION

Artificial Intelligence (AI) positions factually exceptional challenges for our present-day workforce. As emerging globally trend, AI is extending its presence at almost all levels of social conduct and thereby elevates high opportunities and crucial concerns. With the dramatic growth in diversity and entrance of emerging technologies in today's societies, such as procedures, social robots, computer embodiments, and virtual tools, the social complexity of these challenges are on the rise.

Its contexts are

- Development and application of modern technologies in our societies is the identification and consideration of ethical issues surrounding AI.
- The call for Artificial Intelligence Ethics has developed.
- A growing number of AI and robotics researchers have demanded to create a framework on AI ethics building on the benefits of humanities, philosophy, natural sciences, sociology, and social neuroscience.
- AI will hold the potential to replicate human existence but also grant eternal being opportunities.
- Finding mechanisms to switch off AI would be a solution to avoid a crowding of the planet.
- Leveraging AI entities to the status of being through the attribution of legal personhood raises challenging legal and ethical questions.
- Programming AI to switch itself off or switch off AI at a certain point to reduce manpower.

- As quality control against harmful behavior arising out of AI, thereby appears critical as it would come close to suicide or killing.
- The currently ongoing market disruption through AI encroaching our workforce raises important organizational behavior concerns.
- When considering humans' opportunity to determine life and death of AI, humankind will see the opportunity of AI-evolution understood as a human-made evolution determining the goal to improve the overall offspring and general well-being of humankind.
- Future managers and corporate leaders will have to determine how to blend in the use of algorithms, robots and AI on a large scale. Thereby natural behavioral laws of ethics may serve as a first anchor to determine respectful yet useful conduct around AI.
- The artificial age imposes challenges on our resource consumption.

WHAT IS ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) is intelligence demonstrated by machines, as opposed to intelligence of humans and other animals. Example tasks in which this is done include speech recognition, computer vision, translation between (natural) languages, as well as other mappings of inputs. Artificial intelligence (AI), is also the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex tasks—as, for example, discovering proofs for mathematical theorems or playing chess—with great proficiency. Still, despite continuing advances in computer processing speed and memory capacity, there are as yet no programs that can match human flexibility over wider domains or in tasks requiring much everyday knowledge. On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as diverse as medical diagnosis, computer search engines, and voice or handwriting recognition.

METHODS OF ARTIFICIAL INTELLIGENCE

AI research follows two distinct, and to some extent competing, methods, the symbolic (or “top-down”) approach, and the connectionist (or “bottom-up”) approach. The top-down approach seeks to replicate intelligence by analyzing cognition independent of the biological structure of the brain, in terms of the processing of symbols—whence the symbolic label. The bottom-up approach, on the other hand, involves creating artificial neural networks in imitation of the brain's structure—whence the connectionist label.

To illustrate the difference between these approaches, consider the task of building a system, equipped with an optical scanner, that recognizes the letters of the alphabet. A bottom-up approach typically involves training an artificial neural network by presenting letters to it one by one, gradually improving performance by “tuning” the network. (Tuning adjusts the responsiveness of different neural pathways to different stimuli.) In contrast, a top-down approach typically involves writing a computer program that compares each letter with geometric descriptions. Simply put, neural activities are the basis of the bottom-up approach, while symbolic descriptions are the basis of the top-down approach.

In *The Fundamentals of Learning* (1932), Edward Thorndike, a psychologist at Columbia University, New York City, first suggested that human learning consists of some unknown property of connections between neurons in the brain. In *The Organization of Behavior* (1949), Donald Hebb, a psychologist at McGill University, Montreal, Canada, suggested that learning specifically involves strengthening certain patterns of neural activity by increasing the probability (weight) of induced

neuron firing between the associated connections. The notion of weighted connections is described in a later section, Connectionism.

In 1957 two vigorous advocates of symbolic AI—Allen Newell, a researcher at the RAND Corporation, Santa Monica, California, and Herbert Simon, a psychologist and computer scientist at Carnegie Mellon University, Pittsburgh, Pennsylvania—summed up the top-down approach in what they called the physical symbol system hypothesis. This hypothesis states that processing structures of symbols is sufficient, in principle, to produce artificial intelligence in a digital computer and that, moreover, human intelligence is the result of the same type of symbolic manipulations.

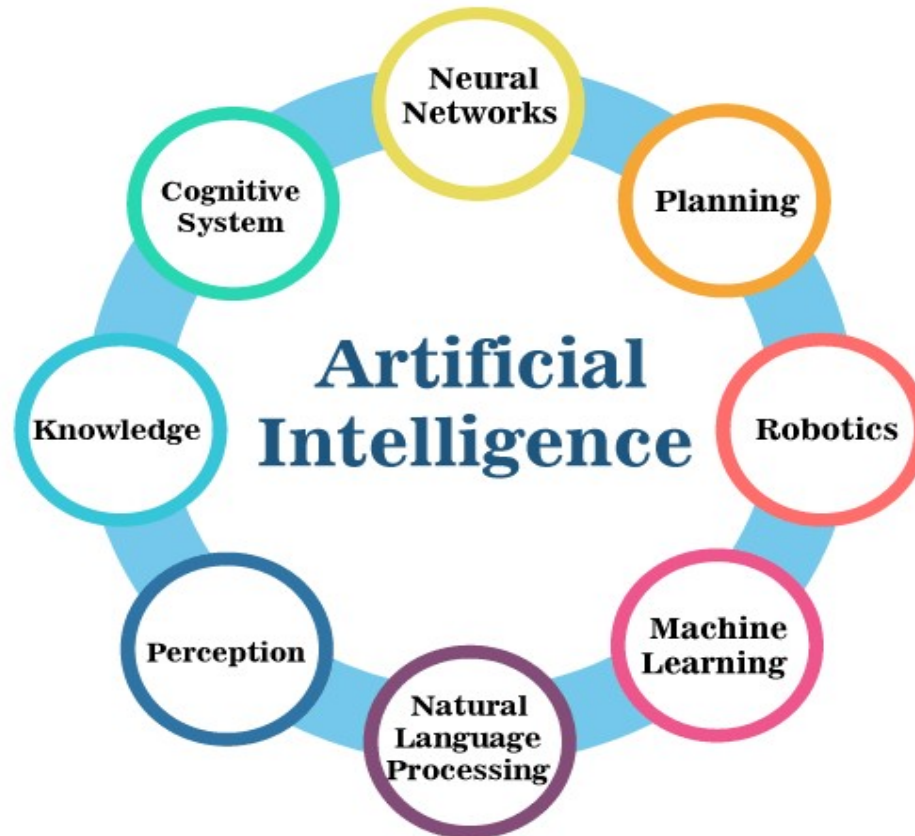
During the 1950s and '60s the top-down and bottom-up approaches were pursued simultaneously, and both achieved noteworthy, if limited, results. During the 1970s, however, bottom-up AI was neglected, and it was not until the 1980s that this approach again became prominent. Nowadays both approaches are followed, and both are acknowledged as facing difficulties. Symbolic techniques work in simplified realms but typically break down when confronted with the real world; meanwhile, bottom-up researchers have been unable to replicate the nervous systems of even the simplest living things. *Caenorhabditis elegans*, a much-studied worm, has approximately 300 neurons whose pattern of interconnections is perfectly known. Yet connectionist models have failed to mimic even this worm. Evidently, the neurons of connectionist theory are gross oversimplifications of the real thing.

GOALS OF ARTIFICIAL INTELLIGENCE

AI can be achieved by reading the behavior of humans and using the results to develop intelligent systems. For example, they learn, make decisions and act in certain situations. Observing humans while problem-solving in simple tasks and using its results to develop intelligent systems.

The overall research goal of artificial intelligence is to create technology that allows computers and machines to work intelligently. The general problem of simulating (or creating) intelligence is broken down into sub-problems.

The symptoms described below receive the most attention. These include special traits or abilities that researchers expect an intelligent system to exhibit. Eric Sandwell emphasizes planning and learning that is relevant and applicable to the given situation.



- **Logic, problem-solving:** Early researchers developed algorithms that simulate humans' step-by-step reasoning when solving puzzles or making logical deductions. By the late 1980s and 1990s, AI research had developed methods for dealing with uncertain or incomplete information, employing concepts from probability and economics. For difficult problems, algorithms can require enormous computational resources-most experience a "**combinatorial explosion**": the amount of memory or computer time needed for problems of a certain size becomes astronomical. The search for more efficient problem-solving algorithms is a high priority.
- **Knowledge representation:** Knowledge representation and knowledge engineering are central to AI research. Many of the problems that machines are expected to solve will require extensive world knowledge. The things AI needs to represent are objects, properties, categories, and relationships between objects; situations, events, states, and times; Cause and Effect; Knowledge about knowledge (what other people know about what we know); and many other, less well-researched domains. A representation of "what exists" is an ontology: the set of **objects, relations**, concepts, and so on about which the machine knows. The most general is upper ontology, which attempts to provide a foundation for all other knowledge.
- **Planning:** Intelligent agents must be able to set goals and achieve them. They need a way to envision the future - a representation of the state of the world and make predictions about how their actions will change it - and be able to make choices that maximize the value. In classical planning problems, the agent can assume that it is the only system acting in the world, allowing the agent to be certain of the consequences of its actions. However, if the agent is not the only actor, it requires that the agent reason under uncertainty. It calls for

an agent to assess its environment, make predictions, evaluate its predictions, and adapt based on its assessment.

- **Learning:** Machine learning, a fundamental concept of AI research since the field's inception, is the study of computer algorithms that automatically improve through experience. Unsupervised learning is the ability to find patterns in a stream of input. Supervised learning includes both classification and numerical regression. After seeing several examples of things from several categories, classification is used to determine which category something falls into. Regression attempts to construct a function that describes the relationship between inputs and outputs and predicts how the outputs should change as the inputs change.
- **Social Intelligence:** Effective computing is the study and development of systems that can detect, interpret, process, and simulate human. It is an interdisciplinary field spanning computer science, psychology, and cognitive science. While the origins of the field can be traced to early philosophical inquiries into emotion, the more modern branch of computer science originated from Rosalind Picard's **1995** paper on "**effective computing**".
- **Creativity:** A sub-field of AI addresses creativity theoretically (philosophical, psychological perspective) and practically (the specific implementation of systems that produce novel and useful outputs). Some related areas of computational research include artificial intuition and artificial thinking.
- **General Intelligence:** Many researchers think that their work will eventually result in a machine with artificial general intelligence, combining all the skills described above and exceeding human capacity in most or all of these areas. Some believe that such a project may require anthropomorphic features such as artificial consciousness or an artificial brain.

CONTEMPORARY ISSUES IN ARTIFICIAL INTELLIGENCE

1. Computing Power

The amount of power these power-hungry algorithms use is a factor keeping most developers away. Machine Learning and Deep Learning are the stepping stones of this Artificial Intelligence, and they demand an ever-increasing number of cores and GPUs to work efficiently. There are various domains where we have ideas and knowledge to implement deep learning frameworks such as asteroid tracking, healthcare deployment, tracing of cosmic bodies, and much more.

They require a supercomputer's computing power, and yes, supercomputers aren't cheap. Although, due to the availability of Cloud Computing and parallel processing systems developers work on AI systems more effectively, they come at a price. Not everyone can afford that with an increase in the inflow of unprecedented amounts of data and rapidly increasing complex algorithms.

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|-------------------------|-----------------------------------|---------------|
| COMPUTER POWER | ISSUES IN ARTIFICIAL INTELLIGENCE | DEPLOYMENT |
| TRUST AND PEOPLE | | DATA AND BIAS |
| KNOWLEDGE | | PRIVACY |
| | | JOBS |

2. Trust Deficit

One of the most important factors that are a cause of worry for the AI is the unknown nature of how deep learning models predict the output. How a specific set of inputs can devise a solution for different kinds of problems is difficult to understand for a layman.

Many people in the world don't even know the use or existence of Artificial Intelligence, and how it is integrated into everyday items they interact with such as smartphones, Smart TVs, Banking, and even cars (at some level of automation).

3. Limited Knowledge

Although there are many places in the market where we can use Artificial Intelligence as a better alternative to the traditional systems. The real problem is the knowledge of Artificial Intelligence. Apart from technology enthusiasts, college students, and researchers, there are only a limited number of people who are aware of the potential of AI.

For example, there are many **SMEs (Small and Medium Enterprises)** which can have their work scheduled or learn innovative ways to increase their production, manage resources, sell and manage products online, learn and understand consumer behavior and react to the market effectively and efficiently. They are also not aware of service providers such as Google Cloud, Amazon in the tech industry.

4. Human-level

This is one of the most important challenges in AI, one that has kept researchers on edge for AI services in companies and start-ups. These companies might be boasting of above 90% accuracy, but humans can do better in all of these scenarios. For example, let our model predict whether the image is of a dog or a cat. The human can predict the correct output nearly every time, mopping up a stunning accuracy of above 99%.

For a deep learning model to perform a similar performance would require unprecedented finetuning, hyperparameter optimization, large dataset, and a well-defined and accurate algorithm, along with robust computing power, uninterrupted training on train data and testing on test data. That sounds a lot of work, and it's actually a hundred times more difficult than it sounds.

One way you can avoid doing all the hard work is just by using a service provider, for they can train specific deep learning models using pre-trained models. They are trained on millions of images and are fine-tuned for maximum accuracy, but the real problem is that they continue to show errors and would really struggle to reach human-level performance.

5. Data Privacy and Security

The main factor on which all the deep and machine learning models are based on is the availability of data and resources to train them. Yes, we have data, but as this data is generated from millions of users around the globe, there are chances this data can be used for bad purposes.

For example, let us suppose a medical service provider offers services to 1 million people in a city, and due to a cyber-attack, the personal data of all the one million users fall in the hands of everyone on the dark web. This data includes data about diseases, health problems, medical history, and much more. To make matters worse, we are now dealing with planet size data. With this much information pouring in from all directions, there would surely be some cases of data leakage.

Some companies have already started working innovatively to bypass these barriers. It trains the data on smart devices, and hence it is not sent back to the servers, only the trained model is sent back to the organization.

The availability of data and resources to train deep and machine learning models is the most important factor to consider. Yes, we have data, but because it is generated by millions of users around the world, there is a risk that it may be misused. Let's say a medical service provider serves 1 million people in a city, and owing to a cyber-attack, all of the one million consumers' personal information falls into the hands of everyone on the dark web. This includes information about diseases, health issues, medical history, and more. To make matters worse, we're now dealing with information about the size of planets. With so much data coming in from all sides, there would almost certainly be some data leakage.

6. The Bias Problem

The good or bad nature of an AI system really depends on the amount of data they are trained on. Hence, the ability to gain good data is the solution to good AI systems in the future. But, in reality, the everyday data the organizations collect is poor and holds no significance of its own.

They are biased, and only somehow define the nature and specifications of a limited number of people with common interests based on religion, ethnicity, gender, community, and other racial biases. The real change can be brought only by defining some algorithms that can efficiently track these problems.

7. Data Scarcity

With major companies such as Google, Facebook, and Apple facing charges regarding unethical use of user data generated, various countries such as India are using stringent IT rules to restrict the flow. Thus, these companies now face the problem of using local data for developing applications for the world, and that would result in bias.

The data is a very important aspect of AI, and labeled data is used to train machines to learn and make predictions. Some companies are trying to innovate new methodologies and are focused on creating AI models that can give accurate results despite the scarcity of data. With biased information, the entire system could become flawed.

BENEFITS OF ARTIFICIAL INTELLIGENCE

- Artificial intelligence is difficult for beginners, yet it offers great opportunities to develop intelligent machines that can turn computer science on its head.
- Reduce human errors and perform various tasks with greater efficiency using intelligent systems.
- Intelligent systems can perform challenging tasks that are beyond human reach. Foreign currency; Explore the ocean and perform various difficult, painstaking tasks with ease.
- A lot of applications have been developed using Artificial Intelligence. iPhones, Siri and Microsoft Cortana, evolved on the phenomenon of artificial intelligence. These are interactive robots that help you access the smartphone.
- With the help of artificial intelligence technology, a digital assistant can be developed, which reduces the number of employees. These assistants can do the job with amazing efficiency.
- Radiosurgery has been used in the medical field for tumor treatments developed using artificial intelligence.
- Use artificial intelligence and improve your products' productivity, efficiency, and accuracy.

NON-BENEFITS OF ARTIFICIAL INTELLIGENCE

Artificial intelligence looks promising, but there are many drawbacks of AI which are;

Artificial Intelligence is slowly making its way into real-time applications. AI offers a lot of possibilities, but it is really expensive. Smaller organizations cannot afford the high-end machines, software, and resources required to implement AI.

Artificial intelligence systems can replace humans in performing tasks in terms of productivity, but they cannot make decisions. Robots cannot decide what is right and what is wrong.

With intelligent systems, you won't get creative with everyday experience. Human beings display creative ideas with everyday experience.

Replacing humans with intelligent systems can increase unemployment which leads to poor GDP

ILLUSTRATIONS

- In Branchless Banking with Biometrics-The world has truly gone digital. It is currently estimated that 3.8 billion people own a smartphone¹, representing almost half of the entire world's population. The rapid ascendance of smartphones around the world in recent years

has upturned much of how we live our lives, from social media to online shopping. Banks and financial services companies have also had to adapt to this new digital landscape, providing their customers with new ways to access and manage their accounts.

- Use of ZF1 machine for finger print capturing for the purpose of unique identification of individual.
- The arrival of COVID-19 only escalated these trends, greatly increasing overall demand for mobile-based financial solutions that wouldn't require in-person visits that could jeopardize one's health. This combination of smartphone ubiquity and reluctance to travel has shone a spotlight on traditional financial onboarding and authentication procedures, highlighting just how important it is to provide financial customers with a means to both open and access their accounts securely from a remote location. With so many banks and financial companies looking for ways to address these challenges, biometrics are an ideal solution for secure, remote onboarding and transaction authentication.
- Chatbots use both machine learning algorithms and NLP to understand customer requests and respond appropriately. And they do that faster than human workers can and at lower costs.
- Artificial Intelligence can handle many customer requests; it can route customer calls not just to available workers but to those best suited to handle the specific needs.
- Manufacturers are using AI software and computer vision to monitor workers' behaviors to ensure they're following safety protocols.

CONCLUSION

In conclusion, Artificial Intelligence is a rapidly advancing technology that offers tremendous opportunities but also poses significant challenges. As explored in this essay, AI has the potential to bring about significant benefits, from improved healthcare and education to increased efficiency and productivity in various industries.

However, its rapid advancement raises significant ethical, social, and economic concerns, including the impact on employment, privacy, and the potential for misuse. It is essential that we carefully consider the ethical and social implications of AI and develop policies that ensure its responsible use. By doing so, we can harness the benefits of AI while mitigating its potential risks and challenges, and ultimately create a more equitable, just, and sustainable future for all.

Although the current state of AI technology is still far short of the field's founding aspiration of recreating full human-like intelligence in machines, research and development teams are leveraging these advances and incorporating them into society-facing applications. For example, the use of AI techniques in healthcare is becoming a reality, and the brain sciences are both a beneficiary of and a contributor to AI advances. Old and new companies are investing money and attention to varying degrees to find ways to build on this progress and provide services that scale in unprecedented ways.

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