AI in Action: Changing Life from the Living Room to the Office

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Abstract:
The use of technology in every facet of our daily life has turned upside down, the way we perceive things and execute life. There lies a stark difference in the way the generation Z is growing up when compared to their predecessor. They have exposed to fast changing technology from a very young age. This generation have seemed to adapt to these changes so well that they seem to be a fish, swimming in a pool of dynamic changes happening around them. There exist multiple examples of disruptive technologies which take place and these emerging technology causes the old ones to become obsolete and one such is Artificial intelligence (AI). AI is one such technology which could programmed in such a way that they could replicate the human's decision-making ability, logical ability, thinking ability and could produce course of action or solution in a very limited period of time thereby reducing the precious time which are being done in mundane course.AI is an emerging and automated technology that support our daily lives. AI in today's world is progressing rapidly with new advanced innovations day in and day out. We are using AI in our daily lives either unknowingly or knowingly and somewhere it has become part of our lives. Ranging from Alexa/Siri to chat bots, everyone is carrying AI in their daily routine. This paper focuses on the basics of what AI is and the areas in which AI is majorly used and issues and challenges of it and what the future of Artificial Intelligence holds for us.

Keywords: *Artificial Intelligence, Performance, Automated system, Disrupted Technologies, impact of artificial intelligence*

1. Introduction

Technology's continual revolution has brought about revolutionary developments for humanity in the past few years. In this digital era, there are impeccable creations which were far beyond our imaginations in the past but now they exist in the real world and they are making people life easier. One such is Artificial Intelligence (AI). The concept of AI has spread across the world in such a way that it encompasses almost every sector be it industry, business, service, healthcare, law, Education etc under its one umbrella. AI assist in every area of lives, whether we are trying to read our emails, get driving direction, get music or movie recommendation. AI is the ability of machines or computer-controlled robot to perform task that are associated with intelligence. Artificial Intelligence is a computer science which aims to develop intelligent machines that can mimic human behavior.AI mimics human like thinking or in other words it is the simulation of human intelligence demonstrated by machines. It can automate task to save time and eliminate human mistake. Behind the scenes of well known products and services offered by Google, Netflix, Amazon, Flipkart etc, AI algorithm was always at their back. But during past few years, AI has come out of its shell and has carved out a deeper route into the world helping every aspect of consumer experience. Those days are not away where more than a bit of AI will in everybody's lives. Based on capabilities and functions, AI can be divided into three types that are:

- **Narrow AI:** it is capable of completing dedicated task with intelligence. The current stage of AI is Narrow AI.

- **General AI:** Artificial General intelligence or AGI defines the machines that can show human intelligence.
- **Super AI:** Super AI refers to self-aware AI with cognitive abilities that can surpass that of humans and can do any task that a human can do with cognitive properties. It is the goal of numerous researchers.

At current stage, AI is known as Narrow AI OR WEAK AI, which can perform dedicated task like self driving cars, facial recognition or Internet Siri searches. Speech recognition, etc. Super AI can comprehend or learn any intelligent task that a human being can. For example, narrow AI can beat humans at chess or solving mathematics, but its impact is still minimal, on the other side, Super AI might surpass humans in almost all cognitive tasks.[1]

2. Objectives

The objectives of this study are to gain a comprehensive comprehension of the applications and effects of Artificial intelligence (AI) in everyday life. The study aims to study the advantages, obstacles and its impact on daily life and future of AI linked with integration of AI.

It aims to analyze how these technologies have revolutionized various industries and daily routine and provide valuable insights for individuals, organizations in making informed decisions regarding the utilization of these technologies.

3. AI in daily lives

Though the term Artificial Intelligence (AI) we have heard multiple thought we had nothing to do with it but that's not true. The silent integration of AI in our daily lives is notable as AI seamlessly operates in the background often escaping conscious recognition. Here are some examples of AI that we had likely to come across but weren't aware of the AI aspect in it.

- **Digital Assistant:** Apple Siri, Google Now, Amazon's Alexa, Microsoft Cortana are digital assistant that helps user perform various tasks, from checking their schedule and searching for something on web, setting reminder to controlling smart home devices or to send command to other app wearable device also can be included under it where device like fitness trackers, smart watches utilize AI to monitor and analyze users' health data. They can track heart rate, sleep patterns, steps count, blood pressure etc.
- **ChatGPT:** ChatGPT is an advanced language model developed by OpenAI.It is capable of generating human like response and engages in natural language conversation. It uses deep learning techniques to understand and generate coherent text making it useful for customer support, chat bots, and virtual assistant.
- **Smarter Homes:** Smart automated system used in homes such as thermostats, security cameras, light are being powered by AI according to our preference and adjust accordingly.
- **Self driving and parking vehicles:** Self driving and parking cars can use deep learning, a subset of AI, to recognize the space around a vehicle, using combination of sensors, camera and they can detect objects, interpret traffic signs and navigate complex road conditions autonomously. Using Artificial Intelligence (AI), the technology company "Nvidia gives the automobiles the ability to perceive, understand and learn so that they can handle an almost limitless variety of driving situations. The company AI Powered technology is already in use in cars made by Toyota, Mercedes Benz, Audi, Volvo, and Tesla and is sure to revolutionaries how people drive and enable vehicles to drive themselves.
- **Smart replies in Gmail:** Smart replies offer users a way to respond to emails with simple phrase like "Yes, I'm working on it or No I have not" with click of a button. Smart replies are tailored to the content of each mail. User can reply by typing a manual response or may instead choose a one click smart reply. Google uses AI to ensure that the entire email landing in the inbox is sorted out say Primary, Social, Promotions, Updates, Forums, Spam. And this helps us to find emails for quick communication purpose.

[1] https://www.javatpoint.com/future-of-artificial-intelligence

- **Product recommendations:** Amazon and other retailers use AI to gather information about your preference and buying habits and then they personalize shopping experience by suggesting new product tailored tour habits.
- **Music recommendation:** Music service uses AI to track your listening habits and then they use the information to suggest other songs according to your preference. For example: spotify offer suggestions for new discoveries, new release and old favorites based on your choice.
- **Maps and directions:** Google maps can calculate traffic and congestion in order to find the quickest route to your destination, that how AI work.
- **Social media:** Many individuals scroll their social media like face book, twitter, instagram, here AI is working behind the scenes to customize what we see on our feeds, recommendation of friends filtering out news etc.
- **Search engines:** Rarely our day goes without searching or looking for an answer or a product on search engines like Google, yahoo etc. without AI search engines would be unable to scan the whole internet and offer what you want. Those ads that appear to track every move as all enabled by AI based on our search history.

4. Literature Review

Ann Geisel (2018), The Current and Future Impact of Artificial Intelligence on Business, International Journal of Scientific & Technology research volume 7, Issue 5, May 2018.The paper focuses on the various fields in which AI is engaged in and also explores other aspects of AI technology in the field business automation, of industrial sectors etc. the paper also focuses on the effect of increasing intelligence of machines and its impact on the change in behavior of business all over the world. Shukla Shubhendu s., Jaiswal Vijay (2013), 'Applicability of Artificial Intelligence in different fields of Life', International Journal of Scientific Engineering and Research (IJSER), ISSN (Online): 2347-3878. This book substantially deals about the important aspects of artificial intelligence. AI is the future but what will the future look like, various field of artificial intelligence and their high-level expectation from it have been listed. Tom Taulli (2019), artificial intelligence Basics a Non-Technical Introduction, Publisher APRESS: This book demonstrates the adoption of AI and how it administered and who has access to it will shape society for generations to come.

5. Methodology

The research was carried out from the previous academic research, journals and books that can relate to the issues. Therefore, the study embraced the form of a new analysis based on the previous research on the subject.

1.Approach to research

In this project doctrinal exploration was involved. Doctrinal exploration is research in which secondary sources are used and materials are collected from libraries, archives, etc. Books, journals, articles were consulted for this endeavour.

2.Types Of research

Explanatory type of research was used in this design because the project topic was not fairly new and unheard of and also because various generalities were needed to be explained.

3.Sources of data collection

The utilization of secondary source for data collection involved gathering information from publications such as books, articles, websites, etc. No surveys or case studies were conducted.

6. AI Applications Scenario

Without a question, AI is a cutting-edge area of computer science, which is poised to dominate a number of various technologies like big data, robotics, Internet of Things (IOT), and it will continue to act as technological innovators in coming years. In order to assess the current level of adoption of AI Technology, there is a need to look into the different sectors. The following listed sectors discuss the applications which have been either deployed or either they are in the advanced stages of development.

The Indian AI market industry has projected to reach 48 billion by 2025, growing at a CAGR of over 40% from 2020 to 2025. This surge is handled by the increased adoption of AI over the sectors like healthcare, fiancé retail, agriculture, manufacturing etc.[2] In order to find out the level of adoption of AI technology, there is need to look into the applications where AI is used in different sectors. AI has been developed and is still in the line of advancing stage. The examples of different fields or sectors are being listed here:

1. **Healthcare:** In the domain of healthcare, AI has proven to be a boon. From diagnostics tool to personalized treatment plans, allowing people worldwide to receive safe and more efficient care and making it easier to detect, prevent, and cure diseases, the integration of AI has significantly improved patient outcomes. AI's capacity to gather data in real time from electronic health records, emergency department admissions, equipment usage, personnel levels etc and to interpret and analyze it in ways enable a wide range of efficiency and care enhancing capabilities in hospital administration. COLUMBIA ASIA HOSPITALS it is one of the leading hospitals in Bangalore, specializing in critical care medicine and bariatric surgery. It employs AI to automate processes, allowing doctors to record each detail the physician and patient communicate, providing visibility into trends, furthermore, predictive analysis helps in early detection of any ailments and aids in treating life threaten conditions. There are strides towards building the world largest image-based AI model to fight cancer from Microsoft and Paige.
2. **Education:** Intelligent Tutoring systems have been developed since the eighties. With the advancement of AI, the scenario of education growth is more accessible to a wider class of people. Massively Online Open Courseware (MOOC) has become popular with time. India's first teacher robot powered by generative AI and cutting-edge robotics technology **IRIS. Users can interact with Iris; it is in line with the Indian Government goal of creating innovations that cater to personalized learning experiences for Indian students.**
3. **Cyber Security:** With data becoming more precious than ever before there is no shortage of cyber criminals out there looking for new ways to compromise it. So a significant trend in AI is developing is to recognize and report common types of attacks. Antivirus software is being developed by using AI in the same manner which helps to prevent malware threat from having devastating consequences. Similarly in business, AI-powered cyber security tools can gather data from companies own communication network, digital activity, transitional systems, websites etc. these tools can run algorithm to identify pattern and detect or predict threatening activity, potential data breaches etc.
4. **Law:** AI applications are being developed and services are offered in the domain of law. For instance a Chatbot namely Do Not Pay helps people in filing appeals against issuing of parking if there are valid reasons. It's been used in London and New York in 3, 75,000 cases for filing appeals.[3]
5. **Finance:** In the dynamic landscape of finance, AI technologies are driving innovation across multiple fronts, notably in fraud detection, risk assessment, customer service automation and algorithm trading. ICICI Bank in India has made significant strides in incorporating AI into banking services. From chat bots like Ipal that assist customers with their queries and transactions to AI based fraud detection systems that monitor for suspicious activities, ICICI leverages AI to enhance service delivery and ensure transaction security.
6. **Autonomous Vehicles:** Everyone knows AI's functionality into autonomous vehicles and to tap such immense potential car and tech companies like Volkswagen, Uber, Samsung, Nvidia are infusing billion of dollars in this domain. Car manufacturer hopes that autonomous driving technology will sway consumer's minds and will also reduce traffic deaths and will be a safe alternative to drive.
7. **Virtual Assistant:** Virtual Assistant is Google's Assistant, Siri, Cortana, and Alexa from Google, Apple, Microsoft, and Amazon. User can use natural language to interact with virtual assistant, as one can also interact with spoken words, an illiterate or blind person can use it. In India a 13 year old girl utilized the power of AI correctly when she was alone at home and a monkey entered her house and started creating havoc. To protect herself her eyes caught Alexa and she immediately commanded

[2] https://www.trade.gov/market-intelligence/india-artificial-intelligence
[3] https://www.theguardian.com/technology/2016/jun/28/chatbot-ai-lawyer-donotpay-parking-tickets-london-new-york

the Alexa to bark like a dog and as soon as the device made a loud barking noise, the monkey got scared and ran outside through the balcony. The device really saved her life.[4]

8. **Ecommerce:** With help of AI retail and e-commerce industries can easily personalize the shopping experience as AI algorithm can quickly analyze vast amount of customer or third-party data to deliver product recommendation or tailored shopping experience. For example, many shopping online fashion websites offer the AI-powered "shop the look "features, suggesting outfits or other suitable products based on customer preference styles or one can click a face selfie and can shop the sunglasses for themselves to see which looks good on them.
9. **Manufacturing:** AI powered predictive maintenance and quality control are revolutionizing the manufacturing sector in India. Examples like COBOTS, though robots have been used to automate manual task in factories and manufacturing plant for decades but cobots are relatively new development. Cobots are designed to work alongside humans in a safe way. They are widely used by automotive manufacturer including BMW and Ford where they perform task like gluing and welding, carrying out quality control inspections using computer vision enabled cameras, greasing camshafts, injecting oil into engines and performing quality control inspections.[5],[6]
10. **Customer Care:** AI certainly empowers contact centers with customer experience chat bots to help resolve common questions or direct customers to specific resources. With the emergence of AI support virtual agents by acting as agent assistance, it can help provide better customer service by understanding customer problems and their sentiments and providing recommend solution after analyzing the problems. It can also perform tasks like summarizing and tagging conversations for historical reference.
11. **Business:** In the latest's technology trend, organization is looking for intelligent tools to solve business challenge and increase productivity, efficiency and accuracy, benefitting the organization. One of such successive waves, Intelligent Process Automation or IPA, brings together Robotics Process Automation (RPA) and artificial intelligence technologies to empower rapid end to end business process automation and accelerate digital transformation. In RPA, computer software 'robots' handle repetitive rule based digital tasks which are driven by structured data. With the launch of ChatGPT, people have been experimenting different ways to use this technology, especially at work.

7. Issues and challenges

The development and evolution of emerging technology are happening at fast pace but it was not as smooth and easy as it seemed to us. It has taken years of hard work of various people to discover AI and bring AI to forefront. Being so revolutionary technology, AI also deals with many controversies and issues about its future and impact on society. The paper will further discuss about future of AI and its impact on society i.e. whether it will be a great technology benefitting people or a threat to them.

- **Job Loss:** If robots start replacing humans in every field, it will lead to huge unemployment, and people would be left with nothing to do. Empty minds results in destructive use. Between 2023 and 2028, 44% of workers skill will be disrupted. Not all workers will be affected equally. The widespread application of AI could lead to increased unemployment and less prospects for those of marginalized backgrounds to break into the tech industry if businesses don't take action to up skill their workforce.
- **Human Biasness**: The reputation of AI has been tainted with a habit of reflecting the biasness of the people who train the algorithm models. Imagine robots working in hospital. Can we expect them of showing care and concern towards the patients? Or can we imagine intelligent machines employed in creative fields, will they be able to create creativity or can excel in that field? The concern over

[4] https://economictimes.indiatimes.com/news/india/because-of-that-barking-sound-an-up-adolescent-uses-alexa-to-prevent-a-monkey-attack-on-herself-and-her-sister/articleshow/109084789.cms?from=mdr
[5] https://www.forbes.com/sites/bernardmarr/2023/07/07/artificial-intelligence-in-manufacturing-four-use-cases-you-need-to-know-in-2023/
[6] https://www.cbia.com/news/manufacturing/implementing-artificial-intelligence-manufacturing/

here is machines lacks creative mind. Human beings are emotional intellectual, they can feel and think and their feelings and thoughts guide their actions.

- **Deep fakes and misformation:** The spread of deep fakes threatens to blur the lines between the fiction and reality, leading the general public to question whets real and what's. And if people unable to identify deepfakes, the impact of misinformation could be dangerous to individuals and entire countries. Deep fakes have been used to promote political propaganda, commit financial fraud and place students in compromising position among the use cause.
- The risk of breakdown makes its as biggest disadvantages or say cons of artificial intelligence. It's like spending billion bucks on a car to get from point A to point B and now having deal with the issues of breakdown right from day one of its purchase. AI is all about effortless performance of a job but in the event of breakdown the whole picture can turn dark.
- **Data privacy:** Training AI Models on public data increase the chance of data security breaches that could expose consumer's personal information. There is also risk of data loss where due to malfunction of certain component the machine can fail to keep the files within it and can result in huge loss of data.
- It might be programmed to do something destructive Autonomous weapons are AI systems that are programmed to kill. In the hands of wrong person, these weapons could kill easily and can cause mass casualties and these weapons can be designed to be extremely difficult to "turn off", so that humans could plausibly lose control in such situation.
- Nightmare scenarios depict what known as technological singularity where super intelligent machines take over and permanently alter human existence through enslavement or eradication. Even if AI system never reaches this level, they can become more complex to the point where it's difficult to determine how AI makes decision at times and lead to lack of transparency as how algorithms can be fixed when blunder or unintended behaviors occur.

8. Advantages

- Elimination of Human Error and Risk: Utilizing AI to complete work, specifically repetitive ones, can avoid human error using AI to complete particularly hard or dangerous tasks can help avoid the risk of injury or harm to humans. An example of AI taking risk in place of human would be robots being used in areas with high radiation. Humans can get seriously sick disorder from radiation but the robots would be unaffected and if fatal error would occur the robot could be built again.
- 24/7 availability: Tireless performance of tasks makes it as one of biggest advantages of AI. With the assistance of AI, a particular work can job can be done without harrowing need for a break, unlike humans who cannot work 24x7 and need a break at the drop of a hat, a machine can get a job done with just blink of an eye. All programs are available at all times whereas human work for 8-9 hour a day. Machine can work all throughout the day and night and AI powered chat bots can provide customer service even during off hours. AI can be adapted in any environment and it will not affect their physical state and functioning whereas humans have serious limitations.
- Unbiased decision making: sometimes when a human being makes a decision, he or she might consider his/her emotions. This setback that plagues the psyche of a human being is absent when an artificial mind performs a given task. With AI it's more about making logical and feasible decisions and much lesser about giving into emotions.

9. Future of AI

In the near future, AI will make us feel that life is speeding up. But the big question is are we ready for such big explosion called artificial intelligence? AI in the coming years will push boundaries and charge ahead.AI is here to stay, to outcompete in future. AI technology is currently changing the face of work, our economies and society. Advances have been made in machine and to continue these advancements for the next decade, there need to be further research and development done.[7] **AI could contribute up**

[7] https://www.mckinsey.com/featured-insights/mckinsey-explainers/whats-the-future-of-ai

to $15.7 trillion to the global economy in 2030.which is more than the current output of China and India combined. The advent of new technologies, notably AI has potential to enhance productivity and output. According to EY report, Gen AI could potentially boost India's GDP by an estimated US $359-438 billion by FY30. The government must consider how they will regulate emerging technologies as part of any strategy designed to ensure equitable distribution of wealth across society.[8]

10. Conclusion

In conclusion we can affirm that AI is a tool, not an end. Like many other new technologies, AI is changing our lives every day and in future it will make our lives more convenient and comfortable. But some may argue otherwise, but there is no need to fear AI as just like other machines AI will do what the human programmer command them to do but the only thing one need to understand it that one needs to have ample knowledge as how to run it so that it proves beneficial to us rather than causing threat or harm. It has been around for decades, but has only recently acquired important new capabilities, powered by computing power. In one hand it offers immense potential in numerous applications, on the other hand it also presents threat to society.AI has potential to revolutionalize and create opportunities for innovation and growth. AI is projected to add $15.7 trillion to the global economy by 2030. The pervasive integration of AI in our daily lives brings both unparalleled convenience and ethical considerations. From healthcare to education, to workplace and social interactions, AI's impact is profound. Balancing the benefit with privacy concern and job displacement challenges us to go around this technological scenery responsibly so that we can harness full benefits of AI while mitigating risks and ensuring sustainable and inclusive future.

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