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Rise of Artificial intelligence: Prospects, Challenges and Way Forward

Outline:

1- Introduction

Evolution of artificial intelligence; rising prominence of artificial intelligence in the contemporary era; debate about the positive and negative impacts of artificial intelligence.

2- Historical synopsis of artificial intelligence

3- Leading Prospects of Artificial Intelligence

a- Increasing efficiency and productivity in various industries

Example of industrial robots

b- Upgrading the field of medicine and healthcare

c- reducing the impact of climate change

d- Improving the transportation and

[Instructor's margin notes in orange:] try to write more enriched content please with more solid argument and more solid examples your last paragraphs do not convey strong meaning some sentences are not grammatically clear

[margin note:] enhancing

- logistics

Example of self driving cars

e - Advancing scientific research and discovery

Example of Siri in The Iphone

f - Increasing national security

4 - Major challenges in The rise of artificial intelligence

a - leading to unemployment

b - Invading human privacy

c - accelerating hacking and terrorism

d - Economic inequality.

5 - Way forwards to promote effective use of Artificial Intelligence

a - Cybersecurity regulatory authorities must be empowered.

b - Developing ethical guidelines for artificial intelligence use

c - Addressing Bias and discrimination in Artifical intelligence alogarithms

d - Promoting transpesacy and explainability in AI system

e - Promoting awarness and understanding

of artificial intelligence technology.

6- Conclusion

Rise of artificial intelligence is a mixed blessing; the multifarious benefits certainly outweigh the negative impacts; recommendations to manage the rise of artificial intelligence.

In the dynamic landscape of the 21st century, few advancements are as pervasive or influential as Artificial intelligence, a transformative technology that has leapt from the pages of science fiction into everyday lives. Artificial intelligence has rapidly evolved to become an essential part of the modern technological landscape. Today, artificial intelligence making humans life much easier by providing solutions for complex problems. It has wide range of importance. The global Artificial intelligence software is growing rapidly. Statista reports that it is expected to reach $126 billion by 2025. In addition, despite its splendid rewards in every walk of life, artifical intelligence become a controversial arena on account of the threats its poses to human beings. Artificial intelligence has multifarious benefits, especially in health and economy. The rise of artificial intelligence caused various challenges. It mainly presents job displacement, economic disparity, privacy

concerns and ethical dilemmas, which calls for reforms on different levels. The following words of Kai-Fu lee, AI investor and Entrepreneur, emphasies the importance of artificial intelligence:

"AI will change the world more than the industrial revolution."

The concept of artificial intelligence was first proposed in 1956 during the Dartmouth Conference. Yet, it was not until the 21st century, with advancement in computing power and data availability, that artificial intelligence began to take the shape we know today. From voice powered personal assistant like "Siri" and Alexa to more sophisticated technologies like autonomous ~~vehicles~~ vehicles, artificial intelligence has transformed the way ~~we~~ live and work.

In the foregoing, it has been noted the brief historical synopsis of artificial intelligence. let some light shed over the leading

prospects of artificial intelligence. First of all, it must be noted that, artificial intelligence is a multifaceted phenomena, which increasing efficiency and productivity in industries. It increase efficiency and productivity in industries by automating repetitive tasks, providing decision making processes and reducing error and waste. Industrial robots can improve operation, reduce costs and increase revenue. Artificial intelligence in this way increasing efficiency and productivity in various industries.

Second, Artificial intelligence upgrading the field of medicine and healthcare. It has been beneficial not only in diagnostic but also in thrapeutic treatment. For instance, Through very accurate diagnostics scans like mammography, computed tomography, echocardiography. Moreover, machine learning enables

individuals to monitor their health. Through personalized medicine devices such as smart watches, android phones and walking bands. Briefly, such a vast use of artificial intelligence has transformed the very approach toward medical field.

Third, artificial intelligence has also proved beneficial for decreasing the impact of climate change much better than before. For example, recently it has helped in the detection of deforestation through satellite imagery or aerial imagery, including data gathering of data about where building and infrastructure used to stand in the past. This is such a great assistance from artificial intelligence that its robust use in the future may help in reducing risks involved with past climate change.

Fourth, in addition to these prospects, the transportation industry has made a tremendous progress with the artificial intelligence use. The

Forbes", an American business magazine, opines that the **US logistics** are embracing autonomous trucks very fast to reap the benefits of artificial intelligence in this field. **Self driving cars** is another achievement of artificial intelligence in the field of transportation. It shows artificial intelligence has a vital role to play in transportation.

Fifth, artificial intelligence has made remarkable achivements in the scientific research and discoveries. Satellites, one of the important discovery help in many fields. It is helping in urban planning through monitoring of the climatic condition of the region. It also helping to conduct 24/7 observation. This is how, artificial intelligence discoveries benefits the livelihood of humans.

In the forgoing, leading prospects of artificial intelligence demonstrate its bright future. However, artificial intelligence, also have some challenges that is going to pose to the human

race.

Firstly, artificial intelligence is leading to unemployment. Machines are taking over most manual work. The excessive dependency on AI-based, lead to massive unemployment. It is already happening on an industrial scale, where AI-based system and chatbots take the e-commerce industry by storm. It may seem an exaggeration, yet artificial intelligence will play an important role in tasks in a better way than that of humans. Therefore, artificial intelligence is steadily and inevitably taking over large workforce sectors and causing mass-scale unemployment, resulting in social unrest.

Secondaly, artificial intelligence poses a serious challenge through its invasion of human privacy, and exploitation of the information gathered about indiviuals. For instance, in the case of social media, the algorithms have substantial control over what people choose to engage with. In other words, social media algorithms exploit the users and propagandize them

in target marketing and selling. The case of the **UK's Brexit** vote illustrating AI power for social manipulation is one such example in which AI has been destructively. Briefly, AI has proved detrimental to human privacy and personal identification information.

Thirdly, Artificial intelligence operated systems are likely to be use for acts such as delivering virus to software, hacking and terrorism. Artifical intelligence accelerate hacking and terrorism in a way that, it would be almost impossible for men to control the damage in a short time. Hence, to deal with AI-initiated terrorism, more AI-based technology would be needed to adjust the potential threat.

In the forgoing, it has been discussed that use of artificial intelligence have many challenges. However, there are some way forwards to promote the effective use of artificial intelligence. Let put some light shed on

way forwards to promote the effective use of artificial intelligence.

Firstly, cybersecurity regulatory authorities must be empowered to promote the effective use of artificial intelligence by setting standards and guidelines for artificial intelligence development, deployment and operation. Regulatory authorities also collaborate with industry stakeholders to share best practices and foster innovation. Development of Artificial intelligence based cybersecurity solution that can detect and prevent cyberattacks and promote the use of AI in threat intelligence and incident response.

Secondaly, addressing bias and discrimination in artificial, intelligence algorithms is an important way forward. Developers need to ensure that the data used to train AI models is diverse, representative and free from biases. Moreover, addressing bias and discrimination can help mitigate legal and regulatory risks and foster trust

and transparency in AI based system.
Thirdly, promoting, transperacy and explainability in artificial intelligence is essential to building trust and confidence. To promote transparency and explainability in artificial intelligence, need to implement techniques such as data tracking, algorithmic auditing and model interpretability. By promoting transparency and explainability in artifical intelligence, we ensure that artificial intelligence is accountable and ethical.

Fourtly, awareness is essential to promote the effective use of artificial intelligence, that This transformative technology is used for the benefit of all. There is need to educate the public about the basics of artificial intelligence, such as how it works, what it can and cannot do, and how it effects our lives. By promoting awareness and understanding of artificial intelligence, it can foster an informed the bright future of this technology.

In a nutshell, Artificial intelligence is an important transformative technology. AI presents both prospects and challenges for society. On the one hand, artificial intelligence has the potential to revolutionize many aspects of our lives from healthcare and education to transportation and entertainment. On the other hand, artificial intelligence also poses significant challenges, such as ethical and legal concerns, job displacement and social inequality. Considering the prospects and challenges in mind, it is suggested that instead of discarding the phenomena absolutely reforms for betterment must be sought. Therefore, despite the challenges of artificial intelligence, its reformation can please taken on a national and global level, so that its benefits can be maximized and its adverse impacts can be minimized. As the President of Russia, "Vladimir Putin", has

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famously said:

"Artifical intelligence is the future, not only for Russia, but for all humankind."