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AI: the driving catalyst of a new era of growth

## Outline

**Thesis Statement:** Artificial Intelligence is the driving catalyst of a new era of growth because it is dramatically changing the world and ushering in transformational development in economy, healthcare, education, urban development and transportation. Although it poses serious threats to our fragile planet, it can be mitigated through holistic approach.

### I Introduction

"AI is going to change the world." - Elon Musk

### II Understanding the term of AI

case in point: "An intelligent machine made by human?" - McCarthy

### III How is AI the driving catalyst of a new era of growth?

A. Increasing economic opportunities

Case in point: \$4.6 trillion economy by 2030 - International Data Corporation

B. Emerging trend of employment

Case in point: 97 million job by 2025

## C- Improving fraud detection

case in point: 34 per cent reduction

## D- Enhancing Education System

case in point: Georgian AI powered education platform

## E- Revolutionizing healthcare System

case in point: Detection of cancer on early stage

## F- Introducing urban management facilities

case in point: The Smart Nation Initiative of Singapore

## G- Environmental Sustainability

case in point: NASA Report 2019

## H- Developing transportation system

case in point: Self driving Cars

## I- Increasing labour productivity

case in point: European Parliament Report

## J- Ensuring data security

### IV- AI is posing various challenges to the world

#### A- Igniting sources of warfare

case in point: James Johnson opinion

#### B- Increasing privacy concerns

#### C- Human replacement

case in point: 85 million job displacement

v Way forward for mitigating challenges posed by AI

A- Establishing ethical guidelines and regulations

B- Promoting awareness and Education

C- Fostering collaboration across sectors  
case in point: global cooperation on AI governance

Conclusion

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"Artificial Intelligence (AI) is going to change the world more than anything in the history of our species."  
- Elon Musk

Undoubtedly, as per the words of Elon Musk AI has revolutionized several fields and it has made life better from music recommendations, map directions and fraud detection to drivingless cars. International discourse has realized its potential. Every company and country has been enjoying various applications of AI. The demand for career in AI has been steadily increasing. Many companies are seeking to higher skilled professionals

of AI. AI is the driving catalyst of a new era of growth because it is dramatically changing the world and ushering in transformational development in economy, healthcare, education, urban development and transportation. Although, it poses serious threats to our fragile planet, it can be mitigated through holistic approach. To understand the whole aspects of AI's potential, this essay defines the term of AI as per prominent scientist.

After that the discussion turns to highlight numerous advantages of AI that make it excellent tool. AI offers a lot of benefits such as economic opportunities, creation of jobs, detection of fraud, reshaping of education system, revolutionizing healthcare system, environmental sustainability and enhancing urban management.

Moreover, this essay exposes robust challenges <sup>posed by</sup> AI to the world like increasing sources of warfare, damaging privacy

5

and replacing the humanity. Finally, it mentions suitable ways forwards to mitigate the challenges of AI.

There are numerous definitions of AI but in simple words AI can be defined as a digital computer program. A well known and prominent, <sup>an</sup> American scientist, McCarthy defines the term of AI. AI is the science and engineering of making intelligent machines, especially intelligent programs. AI develops softwares and systems based on how human minds think, learn, decide and solve a problem. Therefore, AI is digital computer or computer controlled robot to perform task commonly associated with intelligent beings.

It is imperative to highlight the aspects that show that how is AI the driving catalyst of a new era of growth.

6

Increasing economic opportunities show that AI is the driving catalyst of a new era of growth. As per the emerging trend of AI, International market has been inclining to spend every dollar in AI's services and softwares which offer a huge profit. It also contributes to global economy. International Data Corporation states that by 2030, AI could add approximately \$4.6 trillion annually into global economy. The report shows that AI's potential is tremendous and substantial. It also reflects that AI is emerging economic source in the world and it has the potential to change the fate of a country. Therefore, AI is offering unprecedented economic opportunities that make it driving catalyst of a new era of growth.

Besides economic opportunities, emerging trend of employment advocates that AI is the driving catalyst of

9 12  
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a new era of growth. Currently, every student wants to acquire skills of AI that allow him to enter in white collar jobs.

According to a report, published by World Economic Forum 2019, AI could lead approximately 97 million jobs worldwide by 2025. It means that AI can mitigate sense of unemployment which is not only green signal for peaceful coexistence but also good harbinger to youth development across the world. Thus, AI creates a lot of jobs which reflect it a powerful tool.

Moreover, AI is improving fraud detection by recognizing images which shows that AI is the driving catalyst of a new era of growth. There is no doubt in the fact that AI offers various tools and applications which has the ability to detect fraud. A study by the Association of Certified

Fraud Examiner (ACFE) found that organizations that used AI-powered fraud detection tools experienced a 34 percent reduction in fraud losses - ACFE 2020. The report shows that AI has achieved fraud detection across the world which is a huge achievement of AI. Hence, AI's tools and applications are beneficial for fraud detection.

Considering the ability of AI, it is also essential to mention that it is enhancing education system. It provides student learning outcomes by identifying knowledge gap and assess students work. In 2014, the Georgian Government launched AI-powered education platform to improve student learning outcomes, identify drawbacks and suggest suitable recommendations. Resultantly, the country achieved remarkable result with 30% increase in pass rates in mathematics and science. Furthermore, 90 percent teachers



report. improved in student learning outcomes. Taking the successful example of Georgian education method, the world can not ignore the advantages of AI in education sector. Therefore, AI is reshaping the education sector which highlights its worth.

Furthermore, AI is steadily revolutionizing the healthcare system with more accurate and much faster diagnostic system than traditional method. It has developed numerous applications which analyze medical data to assess and diagnose diseases with high accuracy. For example, AI algorithms has the ability to detect early signs of conditions of cancer. Furthermore, As per the World Health Organization, AI can detect breast cancer at early stages within short time and without human error. It can reduce costs and save time with modern diagnostic techniques. So, AI is providing numerous benefits to healthcare

sector making it an excellent tool.

In addition to this, AI is introducing urban management facilities which offer a lot of advantages in every sphere of life. AI-powered traffic management not only reduces travel time but also decreases energy consumption. In 2014, Singapore launched the Smart Nation Initiative to reduce <sup>the</sup> citizens' difficulties in urban life and to provide unprecedented facilities. Resultantly, the country experienced reduction in travel time by 20 per cent and 30 per cent reduction in energy consumption. It means that the world can eradicate the threats of climate change which is robust threat not only to existence of the humanity but also to global economy. Thus, AI offers urban management facilities which make it progressive tool.

Additionally, AI is providing environmental sustainability

by exploring weather patterns and predicting early signs of natural disaster risks. It has the ability to analyze deforestation. National Aeronautic and Space Administration (NASA) states that AI powered systems can analyze satellite images to track deforestation, detect early signs of natural disasters and predict weather patterns. (NASA 2019). It is great opportunity for the world because AI can supporting in eradicating climate change which is a mammoth menace to the humanity. Hence, AI is offering various tools to achieve environmental sustainability.

Furthermore, AI has revolutionized transportation system by introducing unexpected new vehicles. The emerging trend of AI in vehicles is unavoidable and remarkable. AI provides such vehicles which man would not think about them. Uber uses AI to power its self-driving cars which can

... detect and respond to their surroundings navigate through traffic and safely their transport passengers to their destinations. So, this is remarkable achievement of AI in this realm which highlights that AI is the driving catalyst of a new era of growth.

AI is one of the most consequential technologies in the world because it increases labour productivity. It enables automation of routine tasks allowing human workers to focus on complex and creative endeavors. According to European Parliament Report AI could lead to a significant increase in labour productivity, potentially upto 40 per cent due to innovative technology enabling more efficient workforce-related time allocation. It shows that AI can reduce dependency on human labour and enhance productivity across the world. It is inarguably true that AI is the driving catalyst of a new

era of growth.

Ensuring data security is another benefit of AI which can provide more secure and safe data security. Industries are now largely relying on technologies to secure their data. AI excels at processing data, making it a powerful tool for optimization across different fields. AI's broad applicability continues to grow in every field. It can also use its ability to interpret data with better decisions. It can automate tedious tasks without any fatigue. Therefore, AI is offering multiple tools to secure data.

There are always two sides of a coin, and that is the case with AI as well. AI can harm our fragile planet posing various challenges.

AI is igniting sources

of warfare introducing dangerous robot and other applications. It has the ability to destroy peaceful coexistence. The United States Defense Department is experimenting with AI bots can fly a modified F-16 fighter jet and Russia has been testing autonomous vehicles. These developments can damage peace and increase pace of conflicts. James Johnson writes, in his book 'AI and the Bomb', there is possibility of an accidental nuclear war in the East China Sea in 2025 precipitated by AI-driven intelligence on both the US and China sides. As per the words of James Johnson this is a huge threat to the world posed by AI. In a nutshell, AI is posing a mammoth menace by igniting warfare.

Besides increasing warfare, international discourse has generally revolved around the matters of privacy. Creating fake videos

and photos, it can destroy privacy of individual. The use of AI in surveillance technologies raises concerns about private and civil liberties. There is no denying the fact that it poses serious threat to humanity. "People should be worried about threat posed by Artificial Intelligence." - Bill Gates. Undoubtedly, observing the challenges of AI, people can face various obstacles due to AI. Hence, AI is violating privacy of individual.

Moreover, it also replaces human in different field across the world. Due to much faster, humans are now speechless before it. "The development of full AI could spell the end of the human race. It would redesign itself at an ever increasing rate. Humans, who are limited by slow biological evolution, could not compete it and would

be suppressed." Stephen Hawking.  
 Definitely, human would be suppressed due to challenges of AI. It has started job replacement. World Economic Forum estimated that AI could lead displacement of around 85 million jobs by 2025. Thus, it is a big challenge to the humanity.

As every cloud has a silver lining, these challenges can be mitigated through holistic approach.

To harness the benefits of AI, it is essential to establish ethical guidelines and regulations which must rein its unavoidable challenges.

In this regard, Development of AI Ethics Framework is crucial.

Governments, organizations and industries must collaborate to create ethical guidelines that govern the development and use of AI. Thus, implementing regulations and guidelines



can mould it into shield for planet.

To take unprecedented advantages it is also imperative to promote awareness and provide education to people that they can use it at right direction. These steps can help in not only reducing challenges of AI but also developing economy across the world.

To take unlimited benefits, providing basic skills of AI are crucial.

For example, gaming industries are receiving \$200 billion <sup>annually</sup> from AI. So, creating awareness and providing education can stifle these challenges posed by AI.

Fostering collaboration across sectors is also significant to mitigate the challenges of AI. In this regard, public private partnership and global cooperation on AI governance

are essential. All international bodies must assess and introduce measures to reduce threats of AI. International discourse can also play important role in fostering collaboration across sectors.

To conclude, nobody can deny the potential of AI. AI is dramatically changing the world by introducing efficiency to workplaces and improving industrial productivity and reshaping various sectors. The main objective of AI is to enhance unlimited, unexpected and unbelievable opportunities in every facet of life. It has been emerging since its evolution. Currently, it is offering a lot of benefits including: economic opportunities, urban development, environmental sustainability, revolutionizing healthcare sector, fraud detection and reshaping education system. Although

it poses numerous challenges,  
these challenges can be mitigated  
by introducing robust measures.  
AI's potential is substantial  
and tremendous.