

खण्ड-A / Section-A

उम्मीदवारों को
इस भाग में
लिखना पना है।
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- Q.1 You can't serve data on a hungry man's plate.
आप किसी भूखे आदमी की थाली में डेटा नहीं परोस सकते।
- Q.2 AI is overcoming our mental limitation but not expanding our mental horizon.
ए.आई. मनुष्य की मानसिक सीमाओं को नियंत्रित रहा है, किंतु मानसिक क्षितिज का विस्तार नहीं कर रहा है।
- Q.3 We are using environment for politics, not politics for environment.
हम पर्यावरण का उपयोग राजनीति के लिए कर रहे हैं, न कि राजनीति का उपयोग पर्यावरण के लिए।
- Q.4 The worst form of inequality is to try to make unequal things equal.
असमानता का सबसे बुरा रूप है असमान को समान बनाने का प्रयास।

② AI is overcoming our mental limitation but not expanding our mental horizon.

When Sophia, the first humanoid robot based on Artificial Intelligence chuckled and said "One day robots will take over the world", it surely proves that in a race of giving AI bats limitless mental capacity, we have failed to expand our own mental horizon to understand the gravest threat to human existence.

Artificial Intelligence that began to take over human domain in form of automated machines in the

1980s, has now taken over almost all the spheres of our life. It is present everywhere, from our smart ACs that turns on/off sensing humans to solving complex of equations in workspace. Generative AI has been a new addition to it.

The generative AI which is based on large language models is a new human race nowadays. From Open AI's Chat GPT to Google Bard, all the corporate houses are pushing their capabilities to design the best of AI apps and devices. Another form of this intelligence is machine learning which is giving the capacity to machines to learn from our feedbacks and inputs.

Given the almost limitless capabilities of these AI models, it is very obvious to almost everyone that it has unimaginable capacity to destroy us - both materially and mentally.

This essay, ^{thus} seeks to analyse how AI has helped overcome our mental limitations and how it is corrupting us mentally. It will also see how humans have failed to cope up with this every increasing development. At last it will also see we can deal with it.

The first half of the essay topic talks about mental limitations of human beings. So, it is important to know what those limitations are. Humans are considered to be the most intelligent creatures of the world but they are limited in their memory, their exposure and their expanse of subject expertise. It might take our whole life to become master in one field, yet it is often said that we only use 40% of our cranial capacities which again is our mental limitation.

This mental limitation of domain expertise has been very well overcome by AI models. It takes tens of years to become a medical doctor for humans but only seconds to AI to make a drug discovery. Even more, the Alphafold has been able to discover the protein folding structure which can aid in knowing the efficacy of drugs. Deciphering this structure was a 'herculean task' for humans.

Similarly, it takes hundreds of scientists to discover a compound or to know what would be its structure and properties. But for an AI machine it is "matter of ABC". They have been able to describe the compound on which a research paper was based upon. This has gathered the awe of researchers from all over the world, as discovery of superconductivity might just be a step away.

In addition to this, though all of us are well aware of global warming and its consequences, we often fail to gather actual-real time data on it, making it a long term pursuit. But then comes the AI sensors used by UNEP's situational Analysis Centre that use these AI feedbacks to predict and know the real time melting of glacier - all over the world.

Not just big scientific endeavours, AI is making its presence feel even in our daily chores. Earlier, we used to depend upon our own research on Google to make a project which often used to take weeks to complete. Now, we have our favorite Chat GPT to make data table, make graphical comparisons with different countries, write lengthy essays and what not! It has no boundations, it even can generate images based on our description.

Our state and judiciary too is well aware of its vast capabilities, for it is using AI to know about case laws or using AI to know about fake beneficiaries in schemes like Ayushman Bharat. The Agra Smart City which has presented a model for other cities uses AI sensors to detect potholes, manage traffics and active governance.

Thus, AI has been a breaker of our mental barriers. But such positive attitude towards it is not reflected in a recent letters by AI pioneers where they wrote that we need to "mitigate the ~~ext~~ threat of extinction to human life from AI, as much as we have to mitigate others like climate change". This is a forewarning about the effects of AI if we fail to expand our horizons to understand it and use it productively.

A prime example of failing to expand our mental horizon is the recent case in the "Chess Universe" where it was found that Hans Niemann, a 19 years old boy cheated using AI. This depicts that we have failed to imbibe ethical values in the our mental dome while using AI.

Similarly, AI has been defined as a "Atlas" by scientists rather than a 'blurred JPG' showing us true images precisely. This Atlas of AI like our Geography Atlas, has all the countries in it but fail to describe the local conditions. For instance, when CHAT GPT was asked about plantations in Medinipur district of West Bengal, it gave very general threat of monocropping, failing to appreciate the local economy and geography of the place.

Whole society, in fact, is facing threats because of that limited mental horizon which AI has forced upon us. We have placed unfounded belief on "High Modernism" where we think that every successive development in technology is a "progress". This has not ^{been} always the case.

For we have examples of places where AI has been misused to create deepfakes in elections; or to create false voices of celebrities for their own unethical motives. Moreover, our excessive reliance on AI has been leading to depletion of languages, as these models are based on only the prominent ones. It has also cause piracy issues - making unauthorised access to research papers on internet. All these are examples absence of values in the horizon of MENTAL SPACE.

Similarly, we have failed to understand that AI can cause huge loss to the poor and downhadden. World Bank predicts 70% loss of jobs year-on-year because of AI driven automation. The corporate houses who are running 'the rat race' might have been unaware of it or have conveniently discarded this fact.

Therefore, as one famous scientist has beautifully summed, "Before working on something as high as the artificial intelligence, why don't we do something for natural human stupidity". We, thus, need to work upon that basic thing - ETHICAL VALUES, without which all the discoveries are meaningless and threatening. This can be built through laws or self restraint.

So, while Taiwan has banned use of AI in electioneering, many other countries are re-evaluating its usage in their space. Scientists, have themselves put up a pause on the rapid AI development ~~where~~^{and} Sam Altman has stopped it at CHAT GPT 4.0 !.

As Stephen Hawkings has argued, Artificial Intelligence would destroy entire human race as it can build for itself a better version successively. Therefore, we need to expand our mental horizon to cope up with the change and most importantly, to stop at a correct point.

We also need to appreciate and respect humans and their wishes. While some of us might be wanting to fly on the wings

of AI, others might not! As Dui
Pakhi poem of Jagore beautifully
sums up, bird in the cage
does not want to go with the bird
of the forest, as it feels safe there.
Similarly, humans might not be able
to break their mental limitations
without AI but they are safe
from its boundless overreach!

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खण्ड-B / Section-B

- Q.5 Existence is a science, living is an art.
अस्तित्व एक विज्ञान है, जीना एक कला है।
- Q.6 If the truth shall kill them, let them die.
यदि सत्य से किसी की मृत्यु होती है, तो उन्हें मरने दो।
- Q.7 The only way to go beyond things, is to go through them.
हालातों से परे जाने का एकमात्र तरीका उनसे होकर गुजरना है।
- Q.8 Dream for the best. Be prepared for the worst. Enjoy life in between.
सर्वश्रेष्ठ के लिए सपना देखें। सबसे बुरे के लिए तैयार रहें। इसके बीच के जीवन का आनंद लें।

When Neil Armstrong, a pioneer of space sciences, writes in his poem the beauty of "blue sky, the white clouds, sunny mornings and sacred nights", he truly has mentioned about the art that whole of our life is. While Armstrong is known to world because of the science of moon mission, he is consciously choosing to live his life as an art.

This essay seeks to give a scientific explanation of human existence, how living can be an art and how both existence and living is a curious concoction of both science and art.

The universe is said to have emerged from 'Big Bang' that took place billions of years ago. It is responsible for making this life possible. So, the very basis of our existence has been science, the astrophysics as we call it. The Big Bang and the science that followed, provided our planet Earth, conditions suitable for humans to survive.

Similarly, it is the biological sciences, the basic unit of which is the cell that is making our body to function. It is science that make those cells develop into tissue, forming organs and finally an organism. The minute capillaries and arteries are pumping blood to our every organ with each beat of our heart. It is also the science which allows our brain to make other discoveries in science.

These scientific discoveries also define our very existence. So we have fans, cars, machines, that are as complex as us, surrounding us all throughout our lives. In fact, it is often said that the "Process of self discovery has been technologically outsourced" which defines the importance of science in existence of human beings.

However, there is a difference between existing and living, latter being an art. As all of us are existing one way or other but only those who make the best out of this existence succeed in their journey of life. In fact, when Aristotle says that "An unexamined life is not worth living", he surely is pointing to this very fact of life-living it like an Art, Appreciating it like an Art!

Just as art has beautiful colors in it, our life also has those colors +: some bright, some dull but all having its own significance in making an artistic creation - which is our journey before the death comes and takes away our life. This has been duly appreciated by various lyricists too, calling life to be "Safar Suhana" (beautiful journey) or exclaiming with joy - "Beautiful life, beautiful day"!

However, it takes absolute courage in living the life we have ~~is~~ always wanted. Einstein could have conveniently accepted the words of his teacher to not to come to the school and being mentally challenged! But he took to life, making it meaningful and defining the very origin of life through his research. Such is the importance of ^{ai} approaching life as an art.

It is absolutely untrue that the art of life has no gloom, as famous poet has said - "life is not a bed of roses" but it is our attitude towards our life that defines us. We, through our will power can make it meaningful, removing the "spikes" in these beds of roses.

An example of a meaningful life is presented by Padma Vibhushan, Sandhu Tai Sapkal, who had a tough married life, who was deserted by her husband with a girl child on the streets but who chose to make the best out of our life. She took to begging to feed others, adopted the street children as her own, even to the extent of giving up her own daughter to orphanage. Later, she established her own house for the weak & down-trodden, coming to be called "Sindhu Aai"!

even the arts of people, appreciate the art of living. So, we have mesolithic era drawings on rock which apart from other things, show a community life with picture of dancing girls or we have temple sculptures depicting religious lives, all of which is a testimony to the fact that people of the past have appreciated this art of living as well.

even the science believes in the art of life. Greatest of the scientists have appreciated the life to be an art of God. However, science is often equated with static and inanimate but it is a dynamic agency. As Rumi often writes, "we are universe in an ecstatic motion" and thus points to its dynamism. Therefore, living is also a science and not just an art.

we have 'science of emotions' - the Emotional Intelligence → making us and defining us! As Marcus Aurelius says "masters of world have been masters of mind". For instance, Jamboli Ajaj, a DM from Maoist region, used her emotion of courage and compassion to build a hospital in that area. This act of balancing emotion is a science.

often, it is the science which makes the life an art! So, for Stephen Hawkings it was astrophysics, it was simple ORS for Dilip Mahalanobis that defined their lives. Many scientific discoveries have been used to give humans - the life which they want to make an art. An example of this can be proton beam therapy to treat cancer patients.

On the other side, our very existence is also an art. Art of intricacies where millions of nerves, blood vessels and cells are functioning without any fail. Biggest of machines also halts due to faults, but not our organ system. We need to appreciate this art to living a meaningful existence.

Living our lives as an art requires us to be very positive minded. As CP Cavafy, in his poem 'Ithaka' claims, as you set on this journey of life towards that Ithaka, "make sure it is a long one", full of discoveries and adventure". This way we will learn from it and make our lives worth it.

As it is said, God has given us this life with a responsibility. Responsibility of not just of ourselves but of others too! We need to make full use of it, Yandhi used it for emancipation of entire mankind, Mandela for freeing the Blacks and Mahsa Amini died without knowing her impact on the world.

As it is said, "Zindagi Aise Jiyo Misal Ban Jaye" (live life in such a way that it becomes an example), we need to make an example of our lives for whole of the generations to come! For that will be the most meaningful use of the 'present' that is life!

To conclude, it can be said that "Ship is safe in harbour but that is not what ship is meant for" and therefore we need to use the science which made that ship possible to create an art. An art which is a soulful melody, sweet enough to strike rhymes in the heart of people around us and brave enough to bring truth to surface!!

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- ② AI is overcoming our mental limitation but not expanding our mental horizon
- ① → Letters by AI pioneers about threats of AI.
 - ② → AI in present world → Generative AI & others.
 - ③ → connecting / Thesis Statement.
 - ④ → ~~AI based on vast~~ Mental limitations of humans → memorising, learning, expanse of knowledge, limited exposure. AI - has been made to overcome all these.
 - ⑤ Medical sciences → Alpha fold; Protein; drug discovery
 - ⑥ Describing compounds → Medicine
 - ⑦ Environmental → UNEP - Situational Analysis using sensors.
 - ⑧ Machine Learning in world industries.
 - ⑨ Class - Research publications; judiciary
 - ⑩ Why don't we do anything for human stupidity??
 - ⑪ Hans Niemann Vs. Magnus Carlsen
 - ⑫ AI in "High Modernism"
 - ⑬ Not Blurred JPEG Vs. Atlas Atlas Model
 - ⑭ Depletion of language
 - ⑮ Warning of Stephen Hawking
 - ⑯ Taiwan use in election; Deepfakes.
 - ⑰ Need of a loss of jobs → World Bank 70%
 - ⑱ CP Canafy's Poem
 - ⑲ Reforming our progress of AI - Sophia
 - ⑳ For humanity and the world to come.

Mental Horizon
↳ Sophia

[Sandhu Tai
Septal example]

skies are blue
Space for Rough Work

- ① Neil Armstrong →
- ② Scientific explanation of human existence - Big Bang theory and compounds.
- ③ Biological explanation - punching organs
- ④ Balance of the universe
- ⑤ Artistic explanation of life Difference between living existing and living.
- ⑥ C.P. Cavafy poem Ithaka → pursuit of journey.
- ⑦ colorful art of life → varied colors existing together and blending diversity
- ⑧ Mesolithic Art → Hand paintings dancing
- ⑨ Those who make changes, go beyond the plain existence. So Einstein → using living art for existence.
- ⑩ We should know how to live life - eg) of Sandhu Tai Septal
- ⑪ Science → even believes this art of God.
- ⑫ Appreciate! Appreciating each day - Hellen Keller eg)
- ⑬ Living is also a science! - Science of emotions - known as EQ / ET.
- ⑭ Science of emotions → Samboli Ayaaj, Each day being a challenge.
- ⑮ Living life as a soldier - sci Roller coaster Ride → Soldier
- ⑯ Science is often equated with static being, it is a dynamic agency. As Rusi claims.
- ⑰ Existence is also an art; art of intricacies; art of God;
- ⑱ Moreover it is important using science for life of others Living an actual Art

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