

NEXT IAS

खण्ड-A / Section-A

उम्मीदवारों को
इस भाग में
लिखना नहीं 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 कर 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.

Rashmi was upset with his counselor's remarks. After a couple of months of sessions, he had diagnosed Rashmi's depression to be linked with her online habits. She was spending almost all her awake time on social media and OTT websites like Netflix, only to catch some 'break' and entertainment.

How then was it the cause of her depression? Turns out, she was living in an echo chamber of negative and violent posts and movies. The unending

'news' feed and autoplay of movies and web serials were draining her energy, without ^{her} even ~~being~~ ~~realised~~ realising.

We all have noticed such patterns in the kind of content social media or other online recommendations throw up. The higher engagement we show, the more entrenched it gets. That too in contents of same flavor. What is the technology enabling this?

Artificial intelligence, or AI, has come a long way, from ^{understanding} simple sentences to understanding our deepest desires. And it is this technology enabling social media as well. Social media, which was envisaged as expanding our horizons, has instead done the opposite. All thanks to AI, the real culprit.

Human vs Artificial Intelligence

Alan Turing famously gave the 'turing test' for establishing if a machine possesses ~~has~~ 'human like' intelligence. If we are not able to ascertain the responses

NEXT IAS

as coming from machine or another human, the machine can be ~~deemed~~ ^{deemed} to be 'intelligent'. Thus AI, by definition, uses human intelligence as a reference.

The utopian dreams back in 20th century was that advent of AI will empower humans and expand his horizon like no other technology. It was the stuff of science-fiction. The maths was always there, and the Moore's law led growth in computing power made AI a possibility by the end of 20th century itself.

Two decades of exponential growth is a good time to pause and reflect the pros and cons of this 'artificial' intelligence.

However, before that, a deeper look is warranted on the basic functioning of AI. AI has essentially tried to imitate our biological brain, looking for patterns, establishing cause and effect, and predicting future on the basis of this.

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It is fed humongous amount of data and mathematical logic and equipped with basic code to look for patterns. This basic premise has indeed given magical results!

AI has overcome humanity's mental limitation like no other technology. Instead of a biological brain, it has chips, semiconductors, data and codes. Humans tire, machines don't. Humans have emotions like anger and love which affects their decision making, but machines don't have that conscience. As long as there is power supply, it remains 'alive' all the same, always.

It also doesn't need motivation to function, or doesn't feel dejected when faced with failure. It simply gathers the feedback as 'incorrect output', tweaks its code to eliminate such repetitions in future, and resumes normal functioning.

This mechanical efficiency is the reason that AI has found its applications in so many sectors, overcoming the limitation posed by humans. Apart from

NEXT IAS

social media and OTT platforms as mentioned, it is writing stories, painting pictures, answering queries, assisting customer support and even driving cars.

But surely, this cannot be without drawbacks, for rarely any technology is ~~every~~ ever hundred percent beneficial.

This brings us back to Rashmi.

The Underbelly of AI

As is well known, the opaque algorithms of entertainment and social media are designed with one objective in mind - to increase user engagement. For this leads to growth of the platform, generates more data, and brings revenue on the back of highly targeted advertisements.

Rashmi too fell into this, and initial engagements with some undesirable content quickly snowballed into an inward

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looking echo chambers.

However, this is just one well known example of the demerits of unchecked AI algorithms.

In the famous book, Weapons of Math Destruction, the author elaborates upon many such scenarios, from targetting of Blacks in USA

to gender stereotypes in hiring decisions of large ~~and~~ multi-national companies.

What explains this?

Really, the basic principles are the same. Since AI feeds on data, it also picks up negative traits like racism, misogyny and xenophobia without any value judgement.

They also entail patterns. And human history is full of dark patterns like this.

Even today, each society is grappling with its own problems, from casteism in India to racism in the western world to religious persecution in theocratic countries.

NEXT IAS

In such a context, if AI is applied amorally, it will merely overcome limitations of the mortal human brain without expanding its horizons. Indian bureaucracy data will show upper castes as "better" candidates for their overwhelming presence, but anyone familiar with Indian society will quickly see the fault in this argument. What then is the solution?

The Future of AI

AI amplifying recorded human bias has not gone unnoticed. Various studies have highlighted the issue, and corrective steps have been taken to 'teach' AI that racism or xenophobia is not to be entertained. There is still a long way to go nonetheless. Even ChatGPT, the latest poster boy of advancements in the field, has shown to generate inappropriate responses with some intelligent framing of prompts.

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Transparency and accountability are of paramount importance in this background, and the tricky question of balancing this against intellectual property rights is what governments across the world are grappling with. From UNESCO to NITI Aayog, many organisations have released white papers to initiate the dialogue.

AI, however, can also help expand horizons in many sectors. Education is one such example, and by ~~educating~~^{developing} critical thinking in young humans, it can indirectly push limits of collective knowledge. Space exploration is another such area.

Lastly, AI is ^{indeed} overcoming mental limitations, but is also making many jobs irrelevant in the process. Many companies have already laid off its customer support staff, only to replace them with chatbots.

NEXT IAS

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Government regulations and private sector both have to take a hard look at this exponential growth of AI, and incorporate measures like reskilling, ethical guidelines and frameworks to establish accountability.

What happened with Rashmi, or with other Instagram-induced teen suicides, or with casualties caused by automated cars, cannot be simply left to the individual consumer alone.

Also, AI right now is evolving within the overarching capability bar set by humans, and for it to truly expand horizons, its innovation needs out of the box thinking; not just as an outsourcing tool for more complicated tasks of humans. It may seem a paradoxical aim, but human ingenuity holds a lot of hope.

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NEXT IAS

खण्ड-B / Section-B

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Existence is a science, living is an art.

अस्तित्व एक विज्ञान है, जीना एक कला है।

If the truth shall kill them, let them die.

यदि सत्य से किसी की मृत्यु होती है, तो उन्हें मरने दो।

The only way to go beyond things, is to go through them. X

हालातों से परे जाने का एकमात्र तरीका उनसे होकर गुजरना है।

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।

Existence is a Science,
Living is an Art

The dichotomy between existence and living, and between science and art, has long captured human imagination. From philosophers like Socrates who aptly remarked that an unexamined life is not worth living, to poets and scientists, the discourse is unlikely to end. Nor should it. This essay too is a humble attempt at understanding such questions. What is existence and living? And what is science and art? Are they related?

The Dichotomy of Existence & Living

The demarcation between existence and living is highly subjective, varying from individual to individual and from culture to culture. Existence entails the act of being alive, of literally breathing, eating, working and procreating. It is concerned with more basal instincts of biology.

For much of humanity, human beings' main purpose was to ensure their existence. As hunter-gatherers in the wild, their ~~primary task~~ ~~primary task~~ was to procure enough food and water, ^{seek} shelter from acts of nature, and avoid being killed by predators.

Gradually, this equation between human and nature changed. From being subservient to whims of nature, technological advancements made homo sapiens first

NEXT IAS

among equals on earth. From existing, we started living.

Living can be seen from many perspectives. In a way, it is more concerned with the present, than the future. Existence worries about the future, plans for it and makes provisions for it.

Living, on the other hand, is less concerned with such banal worries. It seeks something greater from today itself, without being weighed down by the uncertainty of tomorrow.

However, this is a privilege, for only when there is an implicit certainty of tomorrow that one can afford to let go its worries and enjoy the present.

A daily wages is worried about ensuring a happy existence of his family and will not ~~not~~ stop seeking work

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simply because the weather happens to be pleasant. In fact, there are high chances that the pleasantness of the weather will not even register him like ~~to~~ ^{it will} register a couple on vacation.

Thus, there is a fine but important difference between existence and living from ^{this perspective}. Along similar lines, there exists a difference between science and art.

The Subtleties of Science and Art

Science is rules based. It demands data in seeking the truth. It is objective and open to challenge. It conducts experiments, builds theories, and ~~to~~ frames laws of nature. Above all, science acknowledges only one truth. The entire focus is on finding it.

NEXT IAS

Art, on the other hand, has no rules as a rule. It is subjective, fuels from ~~the~~ creativity, and seeks multiple truths. Same rain can evoke nostalgia of childhood in someone, and pain of separation from a loved one in someone else. It's all in the mind and emotions generating from it.

Thus, the phrase, existence being science and living being art makes a lot of sense. Existence has a clear aim, is methodical and has a clarity of what needs to be done. Living, on the other hand, is not bound by aims.

It's free to dream, like art. Each individual can define their own ^{meaning of} living, and all will be right. Not the case with science!

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Existence & Living of Societies

Moving the lens outwards, societies too can be analysed from this framework.

We may have collectively surpassed the phase of hunter-gatherer, but are we ~~not~~ really living as a society, or merely existing?

Questions of existence have been solved, from ensuring food for all, to advancements in health and education and to securing unprecedented growth in economy and science. Yes there are certain gaps, like the existence of nuclear bombs and conflicts in some regions of the world, but for most of the humanity, existence is peaceful.

But, even for such prosperous regions, a deeper look reveals various faultlines. Poverty, patriarchy, racism, casteism,

NEXT IAS

environmental degradation and terrorism is in the way of living of millions and billions of humans.

India too is more than 75 years old in its existence. Defying naysayers, it is stronger than ever today. Much of it is literally owing to science. Green Revolution, ISRO, GDP growth, advancements in IT and a resilient democracy have together laid the groundwork for its future growth. However, the question of whether it has 'existed' or 'lived' is debatable, depending on whom you ask.

Case can be made that India has lived, and not just existed. It is a global leader which each country wants on its side, and there is no stopping its confident march. Much of it is owing to its ~~own~~ 'artistic' founders,

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who ~~dares~~ dared to dream beyond what their colonial masters gave them permission for. India has continued to produce such artists, from Dr Homi Bhabha to Vikram Sarabhai to Satyajit Ray!

This can be sharply contrasted with the rise and fall of USSR. It embarked on a journey of scientific existence, and throttled individual liberty to such an extent that the grand project barely survived five decades.

Individuals too lie along this spectrum of existence and living. Steve Jobs disrupted technology by combining art and science. ISRO's founding fathers too dreamt in the scientific arena. Lesser known "ordinary" humans also engage in both, existence and living, and it would be wrong to box ~~boxed~~ people into one category.

NEXT IAS

The same 9 to 5 office goer comes back home and paints in free time, or even in his job, innovates and tries new things. There is no hard demarcation of what constitutes existing versus living, and frequent switching between the two is what makes us uniquely human!

Gandhiji's remark on finding oneself by losing into service of others can be a good reminder here that there is no real dichotomy between existing and living, for even science needs art and art, science!

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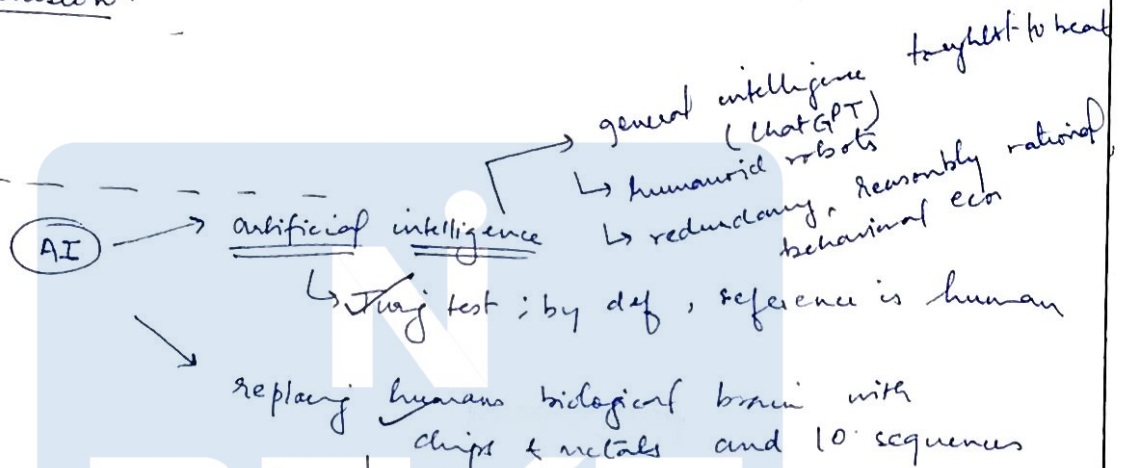
- ① AI is Overcoming our mental limitation, but not expanding our mental horizon.

Intro: Rashmi was not liking her consultant's analysis.
 ↳ Netflix OTT, violence movies

social media?

Netflix?

Conclusion:



- ① Human vs Artificial Intelligence
- ↳ no limit as fuel, emotions, arbitrariness, motivation not present
 - ↳ but horizon means unknown unknown
 - ↳ essentially outgrowing
 - ↳ human making it
 - ↳ data fed for generation is human created
- ② Limitation vis-a-vis Horizon

↳ same bias being amplified

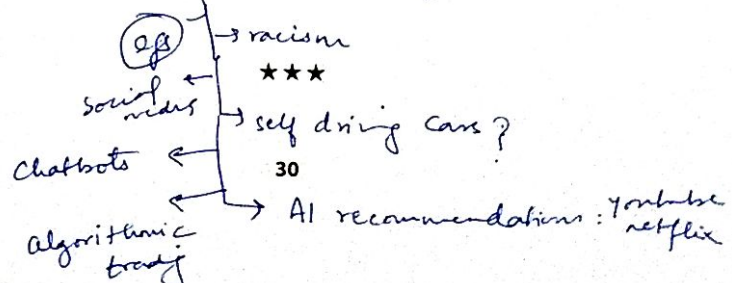
- ↳ US ~~pro~~ prison, resume
- ↳ black
- ↳ corrections not enough
- ↳ can easily be trained to be racist, misogynist; same problem technically
- ↳ horizon same, limitations outgrown
- ↳ facial recognition
 - ↳ jail, police, presume
 - ↳ apply on all blacks

180x60x900

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self → society
 ↓
 int'l

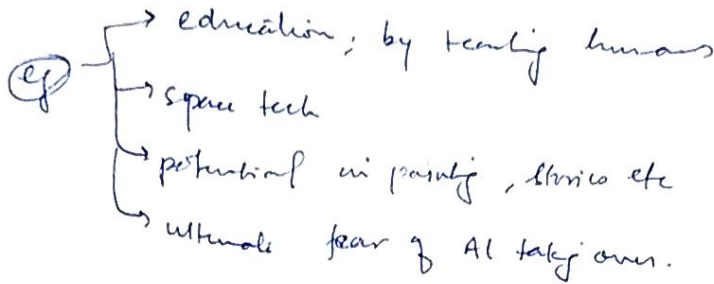
self driving cars
 ↳



20 min
 10 min each
 proof ready

Space for Rough Work

③ Also horizon



④ Way Forward

- policy regulation
- questions of ethics (eg: self driving cars)
- transparency, accountability
- skilling workforce
- Niti Aayog, Centre of Excellence

Existence

→ things which died

↳ USSR

↳ French Rev

→ individuals: existence despite material wealth
art: Yoga, meditation, art of living etc

→ society → existence: hunter gathering to present day
 ↳ living: caste, inequality, poverty, patriarchy

→ disruptions / social reformers

↳ Steve Jobs

↳ Homi Bhabha, Kalam

Science vs art

rule based creative
 data based subjective
 objective

→ existence: territorial sovereignty, GDP
 ↳ art living: happiness

Conclusion → imaginative
 science as art
 art as science
 ↳ regular work
 timing

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