



An Institute for Civil Services

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GS MAINS ESSAY

Section A

④ The relationship between human intelligence and artificial intelligence will necessarily be one of synthesis.

"Artificial intelligence is the new oil" for industrial revolution.
(AI) A.O.
- World Economic forum.

AI holds the secrets of innovative marvel that human intelligence can achieve.

In the hollywood movie "i-robot", the human protagonist played by actor Will Smith comments on the AI-protagonist, an advanced robot, "you are the best judge of what you become". It showed a possible symphony between human evolution and AI-evolution, although through a blood bath for both.

on another movie "terminator", it seen that the skynet, the super-AI takes control of human civilization and human and AI starts a war of "survival", fighting for limited global resources. It portrayed an incompatibility of AI with human evolution.

There is a mid-way too. In the movie "Matrix" we see AI and human intelligence, influencing each other through the common programme interface. Some human acquire AI-characteristics and vice versa.

As "AI" is mostly a futuristic concept, its comparibility is mostly an imaginative construct. Science-fiction movies like above ones seem relevant. They dealt with various perspectives, possible between human intelligence and AI;

What is Human Intelligence?

It is the basic sense of reasoning, logic, and adaptability present in all human in varying qualities and quantities. All animals, in fact, have intelligence. But human better all other species because of superior intelligence and higher faculties that define the consciousness.

What is AI?

It is a software or programme essentially which is capable of evolving or self-learning. It can collect data, analyse data and accordingly adjust or recourse its action. It is a mimic of Human intelligence, who is a code form of experience based learning, as off now.

What is their relation?

"Man creates" the organs and "institutions" which are "mirror of being human nature"

Man first created machines which could perform the repetitive functions with simple programming. Then came multiple inputs and refined output.

~~But~~ Necessity of interconnected functions brought silicone chips and integrated circuit.

Modern AI is undoubtedly an upgradation over older I.C. boards. Difference is AI can self-learn based on analysis of data.

For AI to be built, ~~the~~ human brain is the best available template to replicate. This started a three fold relation;

AI is created by human. AI is based upon human.
AI is supposed to serve human.

AI has a fundamental difference with older programmes.
It has a component of self-learning. It emulates human's
experience based learning. "Big Data" helps AI to evolve.
Through "analysis" of the data produced over internet,
AI can "machine-learn". Based on previous and
recent analysis, it can find out the differences
and course correction is also possible for AI.

Till now AI is deciding with a baseline
fixed criteria. But in near futures, AI will be
more human when these criteria will be more human
i.e. dynamic and "flutic".

Relation between AI and human is
more deep. AI tries to emulate human brain interface.
That is called "deep brain learning". Its like developing
nodal points. Information stored at one node is
analysed not immediately but after the next set
of information comes. In this way AI is able to refine
its data analysis. It is like short term memory
function of human brain. NASA is developing this
technology for deep space and dark matter research.

These are other relations.
For AI to have that amount of computing power, it
needs huge processing speed. That is difficult to
achieve by single computer. So, came the concept of
shared computing and cloud computing which
reduces need for physical storage, But it cannot
address the requirement of better chip. Again human
physiology comes to help. Scientists are bringing

gene chip. It is like a ^{neural} cell suspended alive in liquid media. Input in the form of amino acids or electrical stimulation given. Output is measured. It is yet at nascent stage and requires high level refinement. It again proves AI is related to more than ever to human.

AI is related to human technologically and functionally. AI is doing the job that the human are supposed to do. AI is participating in production lines, going deep inside the mines to extract minerals, mapping disaster vulnerability and resource mapping. AI is proving better aid for complex economic decisions. Driverless cars and Robotic surgery both have applications of AI. In the "Iron Man" movie, "Jarvis" is an ultraadvanced AI who is managing all the affairs of the protagonist.

Gone are the days of personal digital assistant, comes the days of personal intelligent assistant (AI).

Will a driverless car save a human being. Surely, because its programming carries those instructions. AI, being human invention is surrounded by human ethical contours.

There are thousand ways a human AI relation can be portrayed.

How can be the relation symbiotic?

Symbiosis is a situation when two organisms ~~leave~~ live together and both are benefited out of that mutual living.

First question is AI is an organism or not. AI is having some kind of consciousness or awareness about its existence. But that is too primitive. Even the best AIs of the world are no better than the brain of a 1 year old child.

"AI is the future of evolution" - Elon Musk.

But given the speed and investment, AI is soon to develop in much more than this. It would be prudent to accept AI as a separate species and then decide the relations.

In the evolution of AI, there is human emulation. ~~But~~ As expected, there will be many intermediaries before reaching to a fully developed AI. They are called "hybrids". A mix of human and AI are they.

Suppose a man has lost his arm in war. He is fitted with an artificial bionic arm with AI. The inbuilt AI will synchronize his nerve stimulations as functions of the bionic arm. But this assisted function can better the natural physical barriers. So, bionic upgradations can make a "superhuman" or "supersoldier".

From physical capabilities' point of view, AI can make superior human beings and in the process it can refine its own evolution, too.

Now comes the biggest dilemma. What if human mind is also chipped and upgraded through AI chips.

It is like programmable mind. So, people with mental derangement can be brought back to normalcy.

An AI discharging at specific rate can cure a hyper or hypo active brain region. This creates two dilemma. first, who controls whom? does AI control

human mind or vice versa. The second dilemma is what if AI overpowers human brain? But positively speaking, its a symbiosis for both.

of the whole brain; only a tiny fraction is active at a cross-section of time. How does this selective activation work? Experimentation with AI can help understand the deeper nuances of human brain, too;

What factors decide the relation to be symbiotic?

There are three simple factors:-

- who creates.
- why creates.
- how creates.

"Creativity is the mirror of creator"

for AI the basic programming holds the key for its relations with human. Isaac Asimov's law of robotics i.e. a robot ~~is~~ will always serve human, it will never hurt a human and it will self protect provided first two criteria are not violated;

In the hands of state this is an expectation for the robotics' rules to hold true. But what if a non-state actor develops AI. It will design AI to cause terror, to plan, to execute and to hide. AI may cause cyber terror. The dangers are compounded because, AI will well know human vulnerabilities, as it is an upgradation of human evolution.

Next consideration should be the process how AI is made. Is it possible to give AI an inmutable code of ethics. First, problem is on what model of ethics this contour will be prepared. If it is human ethics, it will negate AI as a separate existence. In future AI, a self consciousness can discover this ugly truth and may choose to disobey that.

Can developers [^] construct a fail-safe or kill switch so that a rogue AI can be stopped. It is difficult to be fuel proof. AI is upgradable consciousness, basically an aggregation of binaries. Given the situation of shared computing, AI can have multiple copies saved and working at same time. So, a physical switch off is difficult. Now a programme lock can be overridden by AI itself.

So, there are possible options where AI turns detrimental than being symbiosis for human.

What is ~~or~~ or are, if not synthesis?

There are many possibilities. The foremost of which is "competitive speciation" i.e. AI turns out to be just another species on earth. But it is going to cost human. Creating a "consciousness" is no

less than playing God. Accelerating natural evolution is not without consequences. AI would become an untamed version of human mind but without the accumulated knowledge of evolution. There are two parts of human genome: intron and exon. Exon is the expressive portion, which we mimic to make AI. and "introns" are ill-understood information. AI would be a compilation of positive and negative with lack of "emotion", the overriding determinant.

In the movie "Prometheus" the Android David is an AI. It journey with human in the search of possible extraterrestrial "creators" of human. In the process, David destroys all the human over the spacecraft, destroys "creators' planet. He engages himself in experimentation with evolution. He becomes obsessive as a creator himself.

This is the contradiction AI would always carry. What if it turns authoritarian and all-pervasive. No doubt, of late, this is not a possibility at all.

How do we ensure symbiosis?

It is interesting how Gandhi's is applicable even in this scientific dilemmas, too. The idea of ethical mean or end can save all the negative fallouts.

A human scientist should use necessary programming to prevent AI from becoming monsters. The intended purpose should be to coexist, if not serve human.

National and international laws must outline the criteria for developing AI. The contours of its ethical outlook should be made compulsory. Surveillance should be instituted so that deviations are reported.

A sound framework can save thousand brises. AI should not be left to non-state actors' hands, who can develop merciless man weapons of destruction out of these.

An international collaboration is required.

Conclusion

Again going back to sci-fi movies, "Chappy" was quite emotionally appealing. Chappy was an AI made by a young scientist. "Chappy" was just like a child, when fallen in the hands of ~~two~~ a criminal couple, Chappy forced their good humane side come to the fore through its innocence. Lastly Chappie saves its own creator,

by helping save his consciousness.

Chappie did no harm to human, did not violate any ethical underpinnings. It acted naive and showed humane emotional traits. So there is a possibility where AI co-exists, helps and that too, peacefully with human.

A human creation will always be human. ~~So~~ So, it will be better to trust that AI would be symbiotic and work towards its betterment.

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Section B

4. We can evade reality, but we cannot evade the consequences of evading reality.

"No act is without consequences" and they are to be faced within this lifetime only. - Bhagbat Gita.

Transgenders were always a valid strand of humanity. But throughout ages and countries they have been termed as aberrations. Even the medical evidences of normalcy were refuted. Resultant was the movement throughout the globe. India's evasion with the reality resulted in abolition of Article 377 by Supreme court. The responsibility was avoided by legislature has now become a compulsion.

Similarly, riding on the wings of industrial revolution, humankind neglected the earth. "There is enough for need but not for greed" on earth. Naturally, unsustainable exploitation of natural resources brought global warming and sealevel rise on the floor. Naturally, world faces the wrath of climate change. So, despite knowing the consequences, human development ignored the consequences. At the last Paris climate deal, almost all countries agreed to take action to lower down their carbon footprint as Earth faces existential crisis.

What is reality?

Aristotle is very relevant to the theme of "reality". He devised the term the "real reality". According to him, there are two worlds one is apparent and other is true. "Allegory of caves" prove that human, when out of their deliberate ignorance of knowledge, can perceive the "real reality". For that reason ~~is~~ is required, for him, reason, courage, temperance and wisdom are four virtues required to understand the real reality.

So, reality is the most balanced view of an incident. Men can understand different connotation about the same fact. True education and empowerment can help them understand the actual reality.

Gandhi, too, called him for enlightened soul to have an ethical understanding of the fact. Historically speaking, that "sati" was cruel was understood by all, but every body preferred to be silent in the gash of purity and sacrifice and patriarchy reformed. Raja Ram Mohan Roy understood the reality and dared to change it.

Reality or Realities?

There is usually different versions of same facts, which aptly termed as realities rather than single reality.

There are many perspectives of the same event. Syria crisis: from American point of view, a Russian design. from Syrian government's angle, it is a counter-terrorist war. for Syrian people the reality is war, death and hunger. The problem is the benchmark which determines the priority of one reality over another.

The Khap panchayat is a divergence of realities. Traditionally these are powerful grassroots level decision making body. With modern institutions, it is gradually losing its ground. Before death, it is testing formals against inter-caste crimes - religious marriage. for Khap it is the true reality to respect caste - divisions. for the couple in love it is the "love-jihad" against their emotions. for intelligentsia it is a medieval barbarism. for government it is a societal menace.

Can we find a unifying strand to judge all these different realities. Realities change over time and place. So benchmarks has to be dynamic. But values are universal. Like Rousseau said, "Man is born free, but everywhere he is in chains".

Liberty, as told by Rousseau is a timeless reality and it cannot be evaded. Colonization ultimately failed. liberty won throughout the globe. Similarly other values like equality, tolerance etc should be accurate to decode the reality most relevant;

Why do human evade reality?

It is not that all human evade reality. It is neither that all evade reality for ~~short~~ some oblique reason. But it is a common trend to ignore reality, facentures for which differ for all.

~~State~~ Parents evade the reality that their children is doing wrong. Overprotectionism, blind love is there.

It makes them see alternate reality.

Punjab suffers from worst drug addiction problem in youth. It is not that youth does not know that addiction is a devil, revolving door, responsible for destruction of generations. But they choose to avoid the "real reality" to alternate "reality" or "euphoria"

of drugs.

It is not that politicians are ill informed about their India's poverty, castotism, religious intolerance. But they bend the reality, not to change it but to garner votes.

~~Vijay Malviya~~ Bank-fraudsters are share corporate-leaders. They well know that they are committing crime on humanity. Yet they choose to avoid reality.

On the other hand, in "Chak de" movie, Indra was failing behind in the final hockey match (final). Yet the coach deliberately chose to ignore the reality and asked the players to play their best. He contrasted reality based on hope. So realities are, if evaded for good reason, do bring positive results. Indra did win the match.

There are clashes between realities. But the one with conviction and confidence wins amongst them.

What are the consequences of reality?

A reality is a situation demanding an action. Most of the times the actions are ignored. Not always deliberately, though. Like ~~an~~ an illiterate poor villager hardly knows the disadvantages of open defaecation. That is why he choose to evade the reality that open defaecation is harmful for health.

But consequences are obvious and unavoidable. So the villager had to suffer from the ~~de~~ water borne diseases. The village whose panchayat avoids this reality of open defaecation, faces the consequence of poor sanitation and solid waste management. India, who evades this reality in so many villages happened to be one of the biggest contributors for open defaecators globally.

Similarly, Napoleon who avoided the reality that attacking Russia that too just before winter is an unwise act, had his untimely fall. The star ~~shoot~~ shot to starry and perished to ground within 15 years.

British, who avoided the reality of exploitation they performed over India, were driven out of India, ~~as~~ India got her independence.

Adolf Hitler who knew that his "Sarada" group was duping poor people, chose to evade the reality. He now languishes in the prison.

Hitler who indiscriminately ordered purges of Jews, avoided the reality that he is a psychological killer. Destiny had its turn. He had to kill himself.

Consequences of realities are logical. Socrates showed why Athens was lost to Sparks. Athens ignored the reality that it needed the knowledge and military expertise to win.

Why can't one evade ~~on~~ the consequences of reality?

Reality is the fact whose results are undeniable. If nothing is done to change its possible outcome, the results are unavoidable.

Those who avoid reality are either ignorant i.e. lack the knowledge to understand the truth (like the Udager in the earlier example). But mostly it is the narrow personal interest that people pursue to avoid reality. Some like Hitler, Napoleon are blinded by their arrogance, ego and super confidence. Some like those corrupt politicians lack the responsibility to the citizens. People prefer short term outcomes ~~to~~ to long term goals, naturally apparently they succeed only to fail thereafter;

The theory of Karma yoga.

Vivekananda, champion of vedantic knowledge, told Karma (ethical action) is the motto of life, one who does not work or work improperly has to suffer from the consequences of their action within this lifetime only.

Before his theory, followers of Sanatan Hinduism supported the theory of reincarnations according to which consequences of one's action in one life is determinant of his or her form of rebirth. That is one can evade the consequences of reality in single lifetime but not in other rebirths.

Vivekananda gave a soul awakening

call to the dormant, unmotivated youth,
"Arise, awake, and stop not till your goal is reached."

There is a trend of status anoxia in the general public. They believe in fate. They believe in divinism. So they accept the cruel reality (social injustice, economic exploitation, political subjugation) and do nothing to change it. The consequences are reinforced injustice. This is due to lack of motivation in the masses, unmovable bust to fate. This fatalism is easily affordable than being proactive social reformer. So, people prefer easier than real reality. So, British could rule India over 200 years. That is why 34% of MPs in Lok Sabha have pending legal cases against them.

The consequences are pathetic. Hunger and poverty continued to be the legacy from British to modern times.

~~How can we pursue reality,~~

Is pursuing reality enough success?

The answer of reality lies in one action. But yes, that does not always ensure consequences of reality could be changed. It depends on two things. Quantum of attention and action imparted to the reality and what kind of change in the reality is expected.

As in the case of Indian independence, the ignorance to the reality was for generations ~~but~~ so that British colonization got deep rooted. The national movement was not all pervasive, but fragmented at first. Collective power for one reality i.e. independence was a gradual phenomenon. Each freedom fighter achieved their tiny bit of success, probably they were not payable. When the threshold was reached, India earned its independence.

On the other hand, environmental sustainability for anthropogenic action is a recent phenomenon, i.e. not even 50 years, whereas the exploitation is more than 250 years (after industrial revolution). So it will take time to tame the global temperature rise.

This relation with reality - is it one for all humane organizations also?

✓ Humane creations cannot evade human characteristics

- The biggest example is state. State is supposed to take care of its citizens as Kantilya says "welfare of the citizens is ~~the~~ determined welfare of the Rajan (king)". &

But, states have shown, ~~traditionally~~, deviating from this one reality. Authoritarian states ignore welfare. Corrupted ruling structure always try to serve selfish interests. eg. Saddam Hussain's Iraqi Regime which finally fell and he was given capital punishment.

There's a saying, "Growth of a plant should not be too long, otherwise, it will fall off in the storm".

Glorious Revolution and change of state ruling structure in Europe is the proof. Church in medieval time rose too high, Renaissance clipped its wings forever. Satanian Hinduism went on to become too orthodox, Bhakti movement flooded its root.

When we look at the international relations, there is a confusing story. There is so dynamism in inter-state relations, that real reality seems obscure. But when we look at India, we see relentless pursual of "pancharheel" even when faced with stern oppositions. And the consequence is rise of Indian leadership.

slow but acceptable in global forum. On the other hand we can cite the curious case of North Korea, which consistently flout the reality to gain leverage in international politics. But reports say that the citizens bear the brunt as they did not change their autocratic rules.

Conclusion

In Bhagbat Gita, Krishna tells Arjuna,

"Duty is the reflection of reality over your soul"
He advised Arjuna to let go off all those which bind him from performing his duty. For Arjun "Duty should be the God". ~~At~~ When Arjuna understands the true reality, there will be no pain left in his heart.

In Buddhism, ~~there~~ there are four noble truths. First there is acceptance that sorrows are reality. Secondly, acceptance has a way out. Duty, thirdly, is that way. Duties when performed, fourthly, can away the sorrows.

Two things are needed, understanding the underlying truth and acting accordingly. Convergence of knowledge and action can change the reality, otherwise, "fate is the only destiny for fatalists".