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From Artificial to Affective Intelligence: A Holistic Approach for a Better Tomorrow

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Abstract: Living in a world of technological and scientific advancements, the experiences of our day to day life often put us into conflicts. The current age of Artificial Intelligence challenges our human existence as well as cosmic existence. On one hand, we marvel at the AI's pursuit of the pinnacle and on the other hand, we are fretful of its detrimental consequences on humanity. This has resulted in the evolution of two groups, namely 'technophiles' and 'technophobes'. Aligning to either of these will not facilitate an integral solution to this ever-hiking conflict. Hence, the approach is of a middle path and of constructive criticism in order to explore various nuances of Artificial Intelligence's effect on the *Cosmo-Theo-Andric* perspectives. Thereby this paper addresses the five techno-vices, which are unfavourable to humanity and proposes five

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techno-virtues as a means to effect a holistic response to the challenges raised by AI.

Keywords: AI, Affective Intelligence, Theus-Thamus conflict, *Cosmo-Theo-Andric Vision*, Technophile, Technophobe, Techno-Vices, Techno-Virtues.

Introduction

This essay explores the influence of the Artificial Intelligence (AI) in a cosmo-theo-andric perspective with the tool of constructive criticism in order to arrive at a holistic proposal for a better tomorrow.

In Plato's *Phaedrus*, we have Socrates telling a story to his friend Phaedrus, about Thamus, the king of a great city of Upper Egypt. The story goes like this: Thamus once entertained the god Theuth, who was the inventor of many things, including number, calculation, geometry, astronomy, and writing. Theuth exhibited his inventions to King Thamus, claiming that they should be made widely known and available to Egyptians. Thamus inquired into the use of each of the inventions as Theuth went through them. When it came to writing, Theuth declared, "Here is an accomplishment, my lord the King, which will improve both the wisdom and the memory of the Egyptians. I have discovered a sure receipt for memory and wisdom." To this, Thamus replied,

> Theuth, my paragon of inventors, the discoverer of an art is not the best judge of the good or harm which will accrue to those who practice it. So it is in this; you, who are the father of writing, have out of fondness for your off-spring attributed to it quite the opposite of its real function. Those who acquire

> it will cease to exercise their memory and become forgetful; they will rely on writing to bring things to their remembrance by external signs instead of by their internal resources. What you have discovered is a receipt for recollection, not for memory. And as for wisdom, your pupils will have the reputation for it without the reality: they will receive a quantity of information without proper instruction, and in consequence, be thought very knowledgeable when they are for the most part quite ignorant. And because they are filled with the conceit of wisdom instead of real wisdom they will be a burden to society (Plato, 1973: 96).

Today we are in a world of hiking technologies and technical inventions, to which the sky is the limit. The Artificial Intelligence revolution has begun to create massive momentum around the globe. In defining the needs and transforming those into reality instantly, humans are pressing forward better each day. The legendary response of Thamus is relevant in this techno-modern world. It may evoke a sundry feeling as all of us belong either to the category of partisans or critics of technology. At this juncture, the concern of this paper would be to take a middle path of constructive criticism to analyze the influence of Artificial Intelligence (AI) in the *cosmo-theo-andric* perspective and to arrive at a holistic proposal for a better tomorrow.

The Theus-Thamus Conflict

Developing our thoughts in the light of this legend, we have two mythical personalities: Theus- a 'technophile' and Thamus- a 'technophobe' (Postman, 1993:5). The Theus-Thamus conflict is on a hike in recent times as the blacks and whites of the widespread of Artificial Intelligence is being revealed each day. What makes it a tough deal is the equal

weighing pros and cons of it. Artificial Intelligence is complex in nature. It uses a very complicated mixture of computer science, mathematics, and other complex sciences. Complex programming helps machines replicate the cognitive abilities of human beings.

The advantages of Artificial Intelligence are various as it helps us in reducing the error and the chance of reaching accuracy with a greater degree of precision and also proved capable for the difficult exploration processes such as mining, exploring fuels and the ocean floor. Computed methods for automated reasoning, learning and perception have become a common phenomenon in our everyday lives. We have smartphones, GPS systems, Siri or Cortana to help us out. Artificial Intelligence is widely employed by financial institutions and banking institutions to organize and manage data. Highly advanced organizations use 'avatars' which are replicas or digital assistants who can interact with the users, thus saving the need for human resources.

The complete absence of the emotional side, makes the robots think logically and take the right program decisions. Repetitive jobs that are monotonous in nature can be carried out with the help of machine intelligence. In the medical field also, we will find the wide application of AI. Medical professionals are often trained with artificial surgery simulators. It finds a huge application in detecting and monitoring neurological disorders as it can stimulate brain functions. A popular application of artificial intelligence is radiosurgery. Radiosurgery is used in operating tumours and this can help in the operation without damaging the surrounding tissues (Reddy, 2016).

The dark side of artificial intelligence consists of several factors. Creation, as well as the repair and maintenance of artificial intelligence, requires huge costs as they are very complex machines. In the case of severe breakdowns, the procedure to recover lost codes and reinstating the system might require huge time and cost. Intelligence is believed to be a gift of nature and how far replicating humans would be ethical remains unanswered. Machines perform what is programmed and cannot make the judgment of right or wrong. In an un-programmed situation, it cannot take decisions rather perform incorrectly or break down.

Unlike humans, artificial intelligence cannot be improved with experience. Machines are unable to alter their responses to changing environments. While they can help us design and create, they are no match to the power of thinking that the human brain has or even the originality of a creative mind. One of the greatest challenges of AI is large-scale unemployment due to the replacement of humans with machines. Humans can unnecessarily be highly dependent on machines if the use of artificial intelligence becomes rampant. Artificial intelligence in the wrong hands is a serious threat to mankind in general as it may lead to mass destruction (Reddy, 2016).

The Five Techno-Vices vs The Five Techno-Virtues

Having seen the advantages and disadvantages of artificial intelligence in general, now let us look into some of the challenges raised by the emergence of AI in the *cosmo-theo-andrical* realms as well as positive responses to face those challenges. They are categorized under five metaphoric yet realistic paradoxical categories.

Philia vs We-Philia

In this present world of I-phones, I-pods, and Ipads, the I-consciousness characterized by centripetal nature is an ever-growing phenomenon. While "I" venture to give life to many 'Sophias and Kris' the forgotten fact is that "I" create them according to my image and likeness. "I" never dare to put an algorithm of an ill behaviour or gesture in its brain, so that it may never think contrary to me. Ultimately what "I" do is that "I" create another "artificial I" in the manner of "me", resulting in various ethical and philosophical concerns.

This era of a higher techno-civilization seems to be challenged by the enshrined ideas of interconnectedness and interdependence of our primordial civilizations which have nurtured humanness in other-oriented perspective. The need of this hour is to cultivate a culture of 'We-Philia' whereby the technological advancements uphold the sacredness of the 'otherness' in their algorithms. Instead of virtual communities, efforts should be made to create 'WE-rtual' communities, where we can share our common concerns and visions. The 'I- Thou relationship' of Buber and the Levinasian 'face of the other' should prompt us to come out of our techno-cubicles and to have a wider horizon of life. Allowing our world views to expand and embrace the other warmly in this technocratic world, would make this world a better place for tomorrow.

Android-Philia vs Anthropo-Philia

AI is heading towards an oppressive structure in which technology tries to control a massive group, breaching their right to privacy and security. One of the significant examples of this is the social credit score system implemented in China. The social credit initiative calls for the establishments of a unified record system for

individuals, businesses and the government to be tracked and evaluated for trustworthiness. The system utilizes a numerical score as the reward and punishment mechanism. The credit system is closely related to China's mass surveillance systems such as the Skynet, which incorporates facial recognition systems and big data analysis technology (Meissner, 2020).

AI machines can collect, track, and analyze so much about people, which makes it very possible for machines to use that information against a person (Marr, 2018). Companies, authorities, employers will be able to see private details of a person's lifestyle and possibly use it against them (Howley III, 2019: 21). Over several decades, experts have expressed concerns regarding possible threats of AI to human dignity, safety, privacy, jobs, and more. Joseph Weizenbaum suggests that AIs should not be used as substitutes for humans in jobs—such as therapist or judge—that emphasize interpersonal respect, love, empathy, and care even though AI entities might be fairer and more effective than humans, who often have biases and become tired at their jobs. Excessive reliance on AI could degrade human values and the human spirit as we increasingly think of ourselves as emotionless computerized drones (Pickover, 2019: 162). We need to look towards people-friendly social policies such as:

- Employment of beneficial intelligence rather than unguided intelligence.
- Avoidance of algorithms or programming which causes biased judgment by AI.
- Acquainted of safety issues and regulations.
- The right to privacy not to be compromised.
- Liability for its actions and maintenance of higher transparency in communications.

There are innumerable opportunities to advance work in AI for public welfare, ensuring the individual freedom, dignity, and privacy of humanity.

Mono-Philia vs Poly-Philia

Harold Innis, the father of modern communication studies, repeatedly spoke of the 'knowledge monopolies' created by important technologies. He meant precisely what Thamus had in mind: those who have control over the workings of a particular technology accumulate power and inevitably form a kind of conspiracy against those who have no access to the specialized knowledge made available by the technology. In his book, *The Bias of Communication*, Innis provides many historical examples of how a new technology busted up a traditional knowledge monopoly and created a new one presided over by a different group (Innis, 2008: 4).

The open-source movement, based on a radical retake on copyright law to create high-quality software whose use and development are guaranteed to the public, helps impede the culture of monopoly. The right to full access and to modify the source code, distribute both the original software and the modified software, run the program for any purpose without restriction, etc are its hallmarks. In the future, AI entities will need to be monitored for various kinds of illegal actions like autonomous weapons, unless the monopoly of technology is hampered prudently.

E-Philia vs Eco-Philia

Recently, researchers at OpenAI in San Francisco revealed an algorithm capable of manipulating the pieces of a Rubik's Cube using a robotic hand. It was a remarkable research feat, but it required more than 1,000 desktop computers plus a dozen machines running specialized

graphics chips crunching intensive calculations for several months. The effort may have consumed about 2.8 gigawatt-hours of electricity, roughly equal to the output of three nuclear power plants for an hour.

Neil would say that technological change is neither additive nor subtractive, but ecological (Postman, 1993: 18). He means to say that new technology does not add or subtract something. It changes everything. One significant change generates total change similar to the presence or absence of a microbe that would effect an eco-system in nature. For example, the invention of printing technology is not only characterized by the mere addition of libraries or subtraction of calligraphers, rather the evolution of a new world of information and knowledge accessed, preserved and retrieved at any time. The detrimental side of this would be the extinction of forests for the production of papers.

The Department of Energy estimates that data centres account for about 2 per cent of total US electricity usage. Worldwide, data centres consume about 200 terawatt-hours of power per year – more than some countries. And the forecast is for significant growth over the next decade, with some predicting that by 2030, computing and communications technology will consume between 8 per cent and 20 per cent of the world's electricity, with data centres accounting for a third of that (Parikh, 2020) and finally resulting in an extreme climate crisis. Focusing on eco-friendly methods such as zero-carbon policies, tracking carbon footprints of algorithms, open-source projects, cloud storage, etc would facilitate ecological equilibrium in the pursuit of technical excellence.

Techno-Philia vs Theo-Philia

The AI is heading towards its pinnacle, forging men and God in its excellence. The famous Protagorean aphorism, 'man is

the measure of all things' has its latest version, 'AI as the measure of all things. Regarding the time, when machines might become fully sentient, rational agents – beings with emotions, consciousness, and self-awareness, there exist a deep concern. "The development of full artificial intelligence could spell the end of the human race," Stephen Hawking told the BBC in 2014. "Once humans develop artificial intelligence, it would take off on its own, and redesign itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't compete and would be superseded" (Merritt, 2017). These words of Hawking alarm us about the irresponsible use of AI and its consequences on humanity.

The lines of a famous hymn hark us back:
This world you have made is a beautiful place,
It tells the power of your love…..
Simplicity in a single cell, and complexity in a brain…

All that is created by God was good and will remain good if we the stewards are to use them for good thus we participate in the creative act of God, glorifying the Divine. A radical shift from the techno-centric perspective to the theocentric approach would guide us towards the actualization of *Regnum Dei* in this world. To bring this radical shift into life, we can undertake technical pursuits that may reinstate the values of justice, equality, and fraternity among humanity.

Google's new Startups Accelerator, focused on the United Nations Sustainable Development Goals, which include eliminating poverty, delivering quality education, and improving healthcare around the world, is an example of this. "Geared toward social impact startups working to create a healthier and more sustainable future, the accelerator provides access to training, products and

technical support. Startup founders will work with Google engineers and receive mentoring from over 20 teams at Google, as well as outside experts and local mentors" (Kline, 2019). The project is part of Google's strategy to help drive sustainable solutions for humanity using technology, particularly artificial intelligence.

Conclusion

Google CEO Sundar Pichai envisions an 'AI-first world,' where natural human speech and gestures will replace mobile phones and tablets as the primary interface to technology (Pichai, 2017). AI is a technology that is ever-changing and continues to re-shape society. Society is learning to rely on AI and AI is causing both technological and societal changes in the way people live. The collision of humanity, artificial intelligence, and social networking are leading us into an exciting but challenging future. Resolving the 'Theus-Thamus conflict' may seem to us as a herculean task. Rectifying the five techno-vices and nurturing the five techno-virtues, we are to make our baby-steps to unravel the Theus-Thamus conflict. The development and progression of AI require much attention and guidance around the development of algorithms used by AI, lest the words of Hölderlin prove true:

"n arrival, we have not arrived;
On finding we have not found.

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