SABAB

VOLUME 6
2022

TRANSHUMANISM

Department of Political Science, Lady Shri Ram College for Women

SABAB

The Annual Academic Journal
Department of Political Science
Lady Shri Ram College for Women
2022

Sabab is the annual academic journal of the Department of Political Science, Lady Shri Ram College for Women. In Urdu, the word Sabab means reason or cause. It implies the quest for the grounding of the abstract, the grasping of the metaphysical. Sabab publishes a compilation of imaginative, ambitious undergraduate papers each year with the aim of encouraging critical thinking and meaningful engagement with the political phenomena around us.

Published in New Delhi
Department of Political Science
Lady Shri Ram College for Women
Lajpat Nagar- IV, New Delhi
Delhi- 110024
Ph- 011-26434459

Faculty Note

Dr. Manisha Chaurasiya, Dr. Nancy Pathak,
Dr. Shilpi Singh & Dr. Vagesh Pawaiya

It is well known that the relationship between humans and technology is much older than the rise of modern science. Ever since antiquity, humans have been designing tools, weapons and artefacts for their survival. Perhaps it is the mixed feeling of dread and reverence towards death and life which has thoroughly kept the human race afoot in experimenting with the natural order and their quest for inquiry is to achieve immortality.

For a very long time, this thrust for immortality has materialized through leaving the genes in the body of the offspring which in the society was guarded through primordial customs based on the purity of races, castes and ethnicities. This could be understood as a more organic or naturalistic way of keeping the name, identity and history of a social group and is considered to be a better way of defining the origin of social constructivism. Here individual immortality is attained through becoming social. The detour to this social path has been fossilised with the rise of non-pagan religions in which the immortality of human is completed through uniting oneself with the immortal itself, that is, God. Leaving the materiality of the earthly social world and having a faith in the heavenly spiritual world which still remains for many the successful path for immortality.

With the rise of modern science, the term immortality has gone through tremendous changes. The reason for such changes has to be the revival of the forgotten emphasis on the individual which for centuries remained under the command of the society and the God. Humanism, which for generations was deeply ingrained in the social and spiritual world, has transcended the same with the rise of modern science. The necessity of being social has now been taken over by developing sophisticated technologies which can build up capabilities and enhance the human quest for durability in both physical and mental domains. Developing nanotechnologies, artificial intelligence and becoming cyborgs has

given a new meaning to the previous quest for immortality now known as Transhumanism. This age of modern science can be understood as posthumanism- resolving the human anxieties by not centering on natural and social world but taking the route of technocentrism.

The prospects of human capabilities through minimizing disease, enhancing justice and becoming information giants have troubled the critics of Transhumanism on the grounds of being a threat to human values, ethics and emotions. It has distorted humans as a species and hyped their fear of death and provided a pseudoscientific promise of escaping into self-indulgent fantasies. This rule by big corporate and commerce-driven giants making profits out of human anxieties by positing themselves as the redeemers of human death. From an environmentalist perspective, Transhumanism's assurance of overcoming natural and universal human limitations like physical and mental constraints of ageing and cognitive lacking has tampered with the biological cycle of the natural order. Obsession with body alterations, increase in carbon footprints of humans, the extermination of other biological species and producing E-waste are some of the unwanted outcomes of Transhumanism. Here the frontiers between humans and artefacts have been minimized and there is a possibility that in the future artefacts might replace their creators. Such are the warning signs in the society where gradually Alexa and Siri might capture communicative and dialogical spaces of human life. This risks exporting us into the world of atomized, fragmented and diffused world of politics which can become the prey of any Frankenstein at any point of time. Creating and experimentation in the field of eugenics among the nations might intensify the rivalry for creating superhuman races and cyborg-citizens to become superpowers and warmongers. The history of Nazi concentration camps and their projects of eugenics explain the grim side of Transhumanism.

Will Transhumanism ever overcome the struggle of human imperfectability? Has the Posthuman world ever offered us a glimpse of immortality? These interrogations are never unending because the remnants and traces of Trans and Post world keep reminding us about their failures of the past and keep Sisyphus engaged in rolling the stone despite the factual or fictional victory of Transhumanism.

Editors' Note

Editors in Chief
Ayushi Jain & Kanika Shokeen

Social scientists are often concerned with the ability of human beings to organize together and contribute to an ongoing process of evolution and learning. Often, the culmination of these interactions is in the manner in which each individual contribution - over the course of centuries - comes together into a scientific revelation, a renaissance of ideas. Throughout history, humans have moved from adapting to their environment to altering the environment in the search for a better quality of life. What is unique to the 21st century, arguably of course, lies in a new manner of human development.

When one looks back at classical perspectives on characters that appear to be non-human or more than human, they need look no further than Homer's Iliad. Achilles' bodily impermeability is a famous example of our imaginations creating a human that is more advanced. Yet constituted within these lores are also the inherent shortcomings and dangers of such desires. Achilles' heel aptly foreshadows the impermanence of invincibility.

Today, questions of enhancing human ability and escaping human mortality have transcended the realm of philosophical deliberation to manifest as scientific realities, urging the Social Scientist to step in and question this transformation. In an age when humans have mastered gene-editing and bio-engineering technologies, these archetypes of supposed perfection become models of desire; escaping fantasy to become future possibilities. In this rapidly changing context, are we seeking to become better versions of ourselves or to fundamentally change who we are?

The ship of Theseus, or Theseus' paradox, hits at this existential question. If we have separately taken apart every inch of what was familiar to our ancestors thousands of years ago, and reintegrated it with completely new ideas and creations of the world, are we still the same human or society that we started out with? And if our developments do not invalidate the identity of our origins, can the same be said about the technological development of recent years?

Equipped with advanced technology to augment both performance and sense, the lives we live today mimic a simulation. Our private actions and thoughts are as susceptible to scrutiny and influence as our texts and purchases. At the same time, our

collective revolutions and resistance, celebrations and losses, have become shared like never before. While technology spares the sanctity of nothing, it accords legitimacy to all. It is only as effective as the data it relies on, allowing discrimination to hide behind the 'objectivity' of science. Even so, it opens avenues of possibilities that were, to many, unfairly denied.

Today we can, quite literally, play with nature to create humans who are faster, stronger, godlike - the archetypes from classical antiquity; Greek statues come to life. But we know history hasn't always been kind to those who played God. The assumption of superiority, racial or social, has long interacted with notions of power to create deep fissions in society. Are we prepared to face the consequences of when superiority, in terms of enhanced capabilities, is no longer political propaganda but a scientific reality?

Are there any limits to our ambitions? We are working to create cyborgs, humans that through technological modifications gain superhuman abilities. But consider our conditions right now. We carry a multi-functional supercomputer that increases our memory multifold, and fuels our access to most, if not all knowledge ever learnt by mankind in a fraction of a second. We carry pacemakers in our hearts and technologies that allow us not only to exist, but excel. Can we then truly escape our dependency on technology, or do we merely comfort ourselves with this insistence?

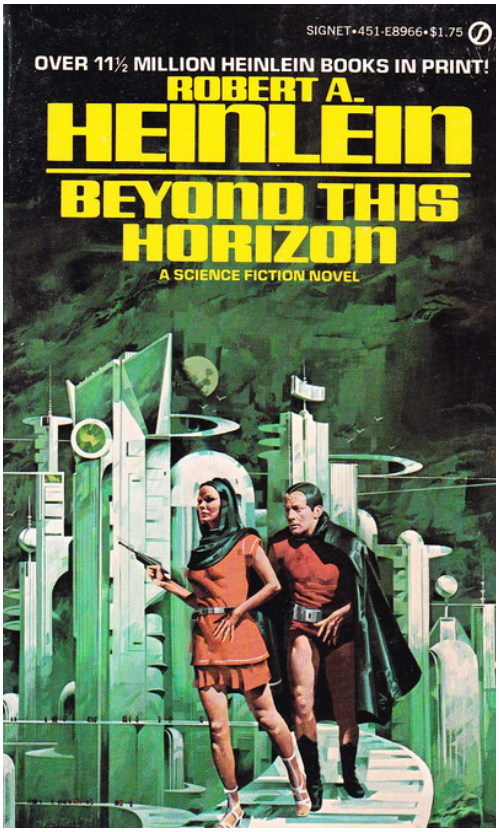
To be transhuman then is to be one with technology. To converge our identities, behaviors and methods with the products of our own creations: Artificial Intelligence.This envisioned future calls for a deeper deliberation on what it means to be human and experience life. On our perceptions of ourselves and everything around us. On individuality of thought and freedom of speech in times of hyper surveillance. On bioethics and conservation in the context of a worsening relationship with nature. On democracy, equality and power in the face of recent developments in media and Big Tech. On social and political institutions and questions of law and order. On our relationships with society and each other.

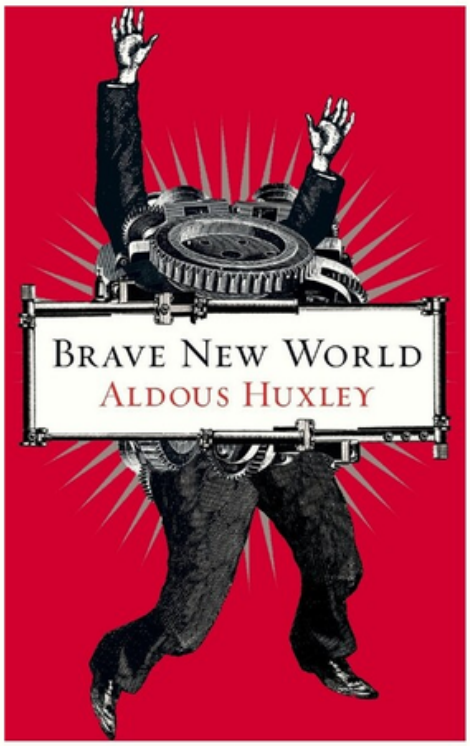
These developments are as concerning as they are exhilarating. If we are already superhumans, we are also ruled by humans with supernatural abilities. What does that mean for us? And if we are only seeking to move forward, what safeguards do we require? What lies in the balance is our understanding of our past, present and future. Inherent to this conversation is the longing to fulfill the persistent desire that plagues the human condition - to do more and be more. And in the ongoing quest to answer - Is being transhuman to transcend our weaknesses, or is it to transcend our humanity?

CONTENT

Divergent Visions of a Transhuman Future in Mid-Century Science Fiction

Arihan Krishna
Department of Political Science, Ramanujan College





1.0 Introduction

In the opening pages of *The Dragons of Eden*, his widely acclaimed meditation on consciousness and what it means to be intelligent, the celebrated American science popularizer and public intellectual Carl Sagan had this to say of the distinguishing feature of the human species, as compared to lesser animals, possessed though many of them are with brains far larger in size and senses, much more versatile than those that equip this rather weak race of primate:

[H]uman beings have… invented not only extra- genetic but also extra-somatic knowledge: information stored outside our bodies, of which writing is the most notable example. But today we do not have ten million years to wait for the next advance. We live in a time when our world is changing at an unprecedented rate. While the changes are largely of our own making, they cannot be ignored. We must adjust and adapt and control, or we perish.[1]

As Dr Sagan knew in 1986, when *Dragons* was published, the world isn't just changing at an advanced rate, the very rate of change in the modern age increases at a rapid pace.

To understand the timescales of progress that we have experienced, consider the fact that the earliest known stone tools used by primitive humans are dated to some 2.5 million years ago. From that primordial state, in which the human was nigh indistinguishable from any other primate, it took until about 10,000 BC for settled agriculture and civilisation to begin in earnest.

From that time, the discovery of electricity and the beginning of the industrial age occurred some two and one-half centuries ago; and only 119 years ago, in 1903, did humanity take wing with the Wright brothers' powered flight.

And then, from the first flight in 1903, it took a mere 66 years for the human race to reach the moon. Now, Mars is well within our sights.

To summarise: The first jump from the invention of stone tools to the beginning of settled agriculture saw about 1 lakh 50 thousand generations of humans pass. From then it took only about 480 generations until the flight of the Wright brothers, another generation for the splitting of the atom, and another from then to the moon landing.

The progress of technological development over the past century has been so rapid, that there is a person still alive in 2022 whose birth predates human flight.[2] Japanese supercentenarian Kane Tanaka was born on January 2 1903, nearly 12 months before the Kitty Hawk flew in North Carolina, USA, on December 17th of that year. Tanaka was 42 in July 1945 when, unbeknownst to her and the rest of the world, some of the world's top scientists successfully detonated the first atomic bomb, the most fearsome weapon known to mankind, in the desert of New Mexico in that same country.

She was 66 years of age in July 1969 when the Apollo astronauts touched the surface of the moon. She was 74 when the Apple II personal computer entered the American market and began the personal computing revolution in April 1977. Tanaka was a venerable 94 in 1997 when a computer beat a world chess champion in a game for the first time. Manned flight, space flight, the atomic age, the invention of the computer and its proliferation, first steps toward artificial intelligence, developments that are all immeasurably more complex than the progress from stone tools to sedentary farming, which humanity undertook over 1.5 lakh generations, have all taken place in one individual's lifetime— an individual who is still alive at the time of this writing.

Carl Sagan cites the humble book as a profound and transcendental invention, one which uses "little black squiggles" to fill the reader's mind with the voice of the writer, who may have died millennia ago.

The collection and storage of information outside the body in this manner allows any

human anywhere to benefit from the experiences and ideas of any other human anywhere else, and indeed anytime else in the past. Language and writing are employed by our species not just to teach our young in a way no other animal can, but to instruct and inform generations beyond our conception. The written word is the main building block of the arts and the sciences, and therefore modern civilisation. The speed at which the written word could travel and the distances it could traverse were both much increased by the invention of the printing press in 1450. This was an invention in what we today call information technology. In spirit the printing press is the main forebear of the internet, developed by nuclear scientists in the employ of the US Army in the 1960s. By the 90s and 2000s the internet had not just done more to increase access to the written word than the printing press, it had as well brought about a revolution in the transmission of audio-visual information altogether greater than the invention of the television and the radio.

From drawings on cave walls left by Homo Habilis to teach its young to hunt, to Johannes Gutenberg's woodblock press, which started the Scientific Age and European Enlightenment, to the ubiquitous Internet that has changed humanity in fundamental ways that will be studied for generations to come, it is information itself that the world has turned to as the next frontier of human progress, the new way to the future.

And we humans, to better access and parse information, are expected now to consummate in full our marriage to technology, and not just with hearing aids and pacemakers. The information that we accessed with knobs and dials sixty years ago, that we now access with the tips of our fingers, is imminently to be made accessible to the brain direct, merely by willing it. What form this transformation takes— Neuralink's chip implant in the base of the skull, some organic biotechnology, only imagined by science fiction writers for now, or something entirely unimaginable— we cannot yet know, but in fits and starts this transformational age, this transhuman age is already upon us. As the speculative writer William Gibson famously wrote, *"The future is already here, it's just not evenly distributed yet."* [3]

While the informational aspect of human-technology integration may prove the most fundamental change in human life, there may be other, similarly far-reaching outcomes of this process: increased human lifespans, the editing of embryonic genes and the prospect of 'designer babies,' enhanced sensory perception, and the elimination of congenital diseases and undesirable traits.

All these have been the subject of moral and philosophical debates, ranging from their effects on society and identity, the possibility of a revival of eugenics, and, at the most fundamental level, the question whether a race of transhumans could even

be considered part of the human race. [4]

This essay looks at the two midcentury works of science fiction which tackle these themes in different ways: Robert Heinlein's *Beyond This Horizon* and Aldous Huxley's *Brave New World.*

Huxley and Heinlein, both seminal writers, present two divergent visions of a technological future in which genetic control has become the foundation of a society of perfectly or near-perfectly bred individuals.

Brave New World, written in 1932 to parody the utopian works of HG Wells, is informed much by Huxley's experiences on a trip to America, which left in his mind an impression of a society steeped in decadent consumerism, sexual promiscuity, in his view, its attendant social degradation, and self-absorption.[5]

The world of *Brave New World* appears to be an extrapolation of this vision imprinted on a future where the progress of industrial manufacturing and advances in biotechnology have created the perfect consumerist civilisation, the World State.[6] Its population is purpose-bred in 'hatcheries.' In these hatcheries, individual fetuses are genetically adjusted according to grades corresponding to their function in society. The lower grades, or castes, are bred for physical labour and thus possessed strong, stout bodies but very limited intelligence— they are human mules. The elite of rulers and scientists and writers and so forth, called Alphas, all possess, according to their function, much greater intellects.

The society thus created, presided over by World Controllers, belonging to the highest grade of human, is geared for mass production and consumption of industrial goods. The members are indoctrinated through a form of sleep-hypnosis to ensure complacency and complete submission to the whole, and unquestioning obedience to the higher castes. To paper over what discontent does arise in the people, a drug called Soma is ritually consumed, used by the police in an anti-riot capacity, and also promoted for recreational use. Thus the World State is kept functional.

The story begins in London several centuries into the future. It follows Bernard Marx, a psychologist, and his friend Helmholtz Watson. Bernard, being involved in work in sleep instruction, is exposed to this process by which the unthinking loyalty of the masses is ensured, and he is unsettled by it. For voicing his opinions on the World State's insidious policies, Bernard is in trouble with his boss. He, Helmholtz, and Lenina, a hatchery worker, take a trip to a 'savage reserve,' the inhabitants of which are free of the World State. In the reserve, disease, natural birth, and other things abound that are unheard of in civilisation proper. A savage boy who, having only ever read Shakespeare, speaks and behaves in a strange and dated manner, fascinates Bernard, who takes him along to London.

The savage, John, is horrified by the society he witnesses. John functions as the foil in the story, reacting to the ways of that hypercapitalist civilisation with a value system closer to the 20th century, when the book was written, and with cultural ideas imbibed from Shakespeare. He is seen falling for Lenina and being tortured to the point of fleeing by her sexual promiscuity, which is the norm in her society but abhorrent to the 'savage.'

At another point in the story, John attempts to stop the use of soma by a group of people, having seen the cowing effect it has on them.

When John calls Bernard's boss 'father' (John turns out to be Bernard's boss's illegitimate son), the people around break out in laughter at the uncouth word uttered. Relationships like that of father and son have no meaning for the hatchery-born citizens of the World State. Similarly, as John cries standing by his mother's side on her deathbed, others around are mystified and taken aback by this uncivilised reaction to death.

In this manner, throughout *Brave New World*, Huxley creates an unsettling image of a future bereft of humanity, where there is no individual, only a mass that produces and consumes. Technology is the prime mover of this society, in which all biological needs are taken care of. Sex for physical pleasure is offered and taken freely, and celebrated, but sexual relationships with romantic attachment are frowned upon. The family, mothers and fathers do not exist, only hatcheries. No emotion except happiness may exist, to the point where happiness is chemically induced in the populace with Soma. (At one point John demands 'the right to be unhappy.')

Clearly, Huxley saw the world moving in a direction where, rather than solve all problems facing humanity, technological progress may destroy the human being and the free individual.

Heinlein, on the other hand, coming out with *Beyond This Horizon* in 1942, presents us with a similar technological post-scarcity vision.[7] Like *Brave New World*, genetic manipulation by central planners has created a disease-free, robust and carefully selected population. But the society of *Beyond* is one that does not extinguish the individual and one in which freedom, rather than conformity, is the central organising political element (to the extent that male citizens carry handguns, and the duel is the preferred form of dispute-resolution.) Interestingly, Heinlein tackles one of the primary moral questions of the transhumanist debate, that of gene editing, with an elegant solution: the parents may freely select the specific sperm and ova that will create their child, but may not edit the natural human genome contained in the sperm and the ova. Thus, the parents may select the best, least flawed versions of their genome (without disease and weaknesses, or with a minimum of them) for reproduction, but

may not fiddle with it.

In *Beyond*, Felix Hamilton, the protagonist, is a scion of the 'Star Line,' the most gifted line of genetically selected individuals, which goes back several generations.

Felix, a game designer, is admired, his needs are all taken care of, and he enjoys his life but increasingly sees no meaning in it. A scientist who oversees the selection of the Star Line approaches Felix with an offer to procreate with a woman who is specially chosen because she matches his genetic gifts. Felix turns him down, reacting adversely against what he sees as deterministic control over his life, where scientists in a lab decide whom he is to have a child with.

As Felix grows disillusioned with his perfect society of perfect individuals, he finds his way into a meeting of a secret cabal that plans to overthrow the government and instate a regime that would throw open the floodgates on gene editing, create distinct function-built slave, ruler and warrior races, similar to the Alphas and Betas of *Brave New World*, and embark on world domination. Drawn at first to this conspiracy, Felix soon finds himself repulsed by it. No doubt this cabal was Heinlein's caricature of the thuggish, race-obsessed Nazis with whom he and his country would go to war in the year *Beyond This Horizon* was published.[8]

As the novel ends, Felix foils the conspiracy and ends up falling in love with the woman who was selected with him. They have a child which not only possesses his gifts but others his own, being capable of telepathy, which no other human possesses. The Star Line has produced a new kind of human.

In the endings of the two novels are contained the kernels of the divergence in Heinlein and Huxley's views. *Brave New World* ends with John becoming a reclusive ascetic so that he may cleanse himself of the evil of civilisation and, upon becoming a spectacle to the people he abhors through television coverage of his exile, killing himself. In contrast to Huxley's nightmare vision of a plastic dystopia in which a free, independent man like John is unable to live, Heinlein shows the use of technology for the improvement of the human race as leading to the birth of the Nietzschean Superman. Felix, having defeated the revolutionaries who sought to create something like the civilisation of *Brave New World*, embraces the wonders of his society and ends by contributing to it its greatest addition, his superhuman offspring. The exercise of free will and individual agency, perhaps the dominant theme in Heinlein's body of work, is evident both in Felix's rejection of his society in the first act of the novella and later on in his heroic defence of it.

The vision of *Brave New World* seems to say forcefully to those alive in 1932 that it would serve them well to not be taken in

by wondrous visions of an industrial, technological future devoid of disease and poverty and hunger and strife, that indeed as they dream of the utopias of HG Wells, they may rather be walking blindly onto the conveyor belt of a civilisational assembly line more of Henry Ford's making.

Beyond This Horizon, while admitting, in the form of the revolutionary cabal which momentarily captivates Felix, the possibility of just such a future coming to pass if the right— or wrong— people control such technology, appears to argue that technological development by itself does not necessarily lead to an oppressive society, where the individual is given over to a machine controlled from the top. That if the human race, with enlightenment and free will in its heart, embarks upon such a scientific, transhuman future, there is no reason why technological development should not enrich and raise it to a greater level of being.

Today, decades of transformative change in all fields of technology lie between us and the men who wrote *Brave New World* and *Beyond This Horizon.* We are hurtling faster than we know to the advent of true Artificial Intelligence, commercial gene-editing, and the invention of internet interfaces that we can manipulate just with our minds. The future is unmapped, but palpably close. And the bets have been placed.

Will our future be an enlightened utopia, per Heinlein and Wells, among others? Or will humanity be reduced to the level of unfeeling and unthinking subjects in a machine of production and consumption, as per Huxley? Today totalitarian China marches forward in science and technology, and the free world, keeping pace for now, contends with the reality that the latest and best innovations in AI, biotechnology and other nascent fields which will dominate the future, will be done not just in countries which will subject them to scrutiny and debate but also in the most oppressive regime in the world, and not for the purpose of elevating humanity to a higher level of consciousness but in order to perpetuate and deepen its control of the masses, mind and body, as already it is doing with its social credit and mass surveillance regimes.

As a consequence, the transhumanist debate, confined for so long to the fanciful visions of woolgathering futurists and the scholarly back-and-forth of specialised academics, is charged with a new urgency as it bursts forth into the mainstream of the technological discourse. For better or for worse, the question *Who got it right?* will be answered, at least in part, in our lifetimes.

References

1. Sagan, Carl. "Introduction." Essay. In The Dragons of Eden. Random House, 1986.

2. "Kane Tanaka, the World's Oldest

Person Alive, Is Now Japan's Oldest Person on Record Ever!" 2020. IndiaTimes. September 21, 2020. https://www.indiatimes.com/trending/humaninterest/kane-tanaka-oldest-person-japan-523301.html.

3. Gibson, William. 2003. Review of The Future Is Already Here – It's Just Not Evenly Distributed. The Economist, December 4, 2003.

4. Tom Koch, Enhancing Who? Enhancing What? Ethics, Bioethics, and Transhumanism, The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine, Volume 35, Issue 6, December 2010, Pages 685–699

5. Heje, Johan (2002). "Aldous Huxley". In Harris-Fain, Darren (ed.). British Fantasy and ScienceFiction Writers, 1918–1960. Detroit: Gale Group. p. 100.

6. Huxley, Aldous. Brave New World (Vintage Classics ed.)

7. Heinlein, Robert A. 2014. Beyond This Horizon. New York: Baen.

8. Patterson, William H. 2010. Robert A. Heinlein: In Dialogue with His Century. Volume 1, 1907-1948 Learning Curve. New York: Tom Doherty Associates Book.

Robots Repaired While U Wait by Ed Emshwiller,
Galaxy September - 1954

Consciousness and Artificial Intelligence

Decoding the dream of a conscious machine

C. Karthika Sajeev
Department of Political Science, Lady Shri Ram College

Abstract

We often use the term consciousness without truly understanding its meaning or the implication of our perception of consciousness. The exercise of understanding consciousness is deeply linked with the act of understanding one's own identity, wants, and behavior. This area of study has become even more important with the advent of Artificial Intelligence (AI). With the rise of machine learning and AI technology, we have begun to conceptualize and desire conscious machines but to actualize that dream, we must attain a consensus on the definition and meaning of consciousness. In the status quo, different schools of thought provide us with a range of definitions. Acceptance or rejection of any school of thought has far-reaching implications in the way we understand the possibility of a conscious machine. In this paper, we shall examine four major schools of thought about consciousness and its implication in our understanding of conscious AI. It also attempts to raise ethical questions which we all should consider before supporting and celebrating technological advancement.

Keywords: *Consciousness, Artificial Intelligence, dualism, materialism, panpsychism, biological naturalism*

1.0 Introduction

Consciousness has eluded human understanding for centuries now. It is interesting because it is considered the basis of human understanding itself. In this paper, we shall talk about four major schools of thought about consciousness, namely; Dualism, Materialism, Panpsychism, and Biological Naturalism. Though this list isn't exhaustive, I believe it is successful in providing a broad idea about the way consciousness is articulated in the contemporary world. This paper then goes on to extrapolate its implications and limitations to the real world. It talks about the questions it raises and what our considerations should be before conforming to a particular idea. The aim of the paper isn't to provide definitive answers but shed light on the important ethical questions we as humans should engage in before it is too late.

2.0 Consciousness

We all are familiar with the concept of being conscious but when asked what it means, most of us do not have an answer. It is not just us; even leading philosophers,

neurobiologists, and scientists have not been able to provide an ontological explanation for consciousness. Some, like John Searle, believe that consciousness is ontologically irreducible. Currently, we do not have a consensus on even the form of consciousness, much less its nature. We do not know if it is a process, a concept, or a phenomenon. We have also been unable to locate the exact region of the brain where consciousness resides or is processed. There have been theories like the Global Workspace Theory which provide certain hypotheses of where the functions might be taking place. Still, we have consistently failed to arrive at a common conclusion. Philosophers like Peter Carruthers go on to deny the existence of consciousness, believing that most of our decisions and judgments do not come from a conscious place. He believes we cannot always be completely conscious of what we are doing, and yet those decisions and actions are an integral part of our lives. (Ayan, 2018).

This just gives us a very brief idea about the lack of clarity we have on the subject of consciousness. But despite that, it is one of the most important fields of study. The main reason is its applications in different fields of study and facets of life. We can get a glimpse of that in ways different philosophers have tried to articulate the idea. Rene Descartes in his work 'Discourse on the Method' (1637) said 'cogito, ergo, sum' (meaning, 'I think, therefore I am). He was a sceptic and propounded the Cartesian Scepticism, he believed that everything that he can understand clearly and distinctly is true. (Britannica,2016) To reach this methodology, he started by rejecting all his beliefs and evaluating each belief by rationalizing them. He goes on to claim that the mind and body are two separate entities, and the body is just an illusion created by the mind. This is a very contested view, but one of the leading schools of thought when we talk about consciousness.

Despite the obvious critique of Descartes's view, his view does help us understand the importance of consciousness. He connects the existence of consciousness with his existence. Consciousness is the reason he exists, without it, he is as good as dead. This line of thought has interesting implications in the ethical debates about rights, euthanasia, abortion, and so on. Another implication can be that consciousness becomes a separate entity, distinct from the illusion of the physical body. Since it is so fundamental it cannot be recreated. Descartes is not alone in having a unique understanding of consciousness.

Another example is Ned Block who categorizes consciousness as phenomenal consciousness (p-consciousness) and access consciousness (a-consciousness). P-consciousness focuses on the subjective experiences of human beings, for instance, when they see the colour red, how exactly do they experience its 'redness'. A-consciousness is the cognitive aspect of

consciousness, how we use our subjective experiences while performing cognitive actions. Through this dichotomy, he brings to fore two aspects of consciousness and also shows us where exactly the problem lies in our understanding. We have been fairly successful in understanding and quantifying our cognitive abilities and actions, and the existence of AI is an ideal example to showcase the stride we have made in the field. (Kuhn, 2003) What we are completely clueless about is p-consciousness. We are not able to reach a consensus on the conceptualization of the subjective experiences of humans, this aspect of consciousness is often called qualia by neurobiologists.

What is interesting is how the difference in the articulation of consciousness generates novel questions in the field of psychology, biology, physics, social science, and philosophy. Each implication of such articulation merits a separate conversation but today we shall focus on how it affects the position of humans in the world, especially with the advent of Artificial Intelligence.

3.0 Artificial Intelligence (AI)

Artificial Intelligence has captured human imagination as nothing else has. In this paper, we refer to every technological advancement as AI which is created by replicating human intelligence. Hence the personal gadgets we find ourselves being so dependent on are AI. This should make us realise that every advancement in the field of AI affects our lives personally.

As mentioned before, the articulation of consciousness can have far-reaching implications in many different aspects of human life, but why does this paper focus on Artificial Intelligence? The answer lies in the emotional response of humans when we talk about AI invasion or the robot uprising. We often view these ideas as interesting conspiracy theories and plots to a sci-fi thriller. According to Sam Harris, this shows the lack of threat perception of humans. We may be unable to comprehend the consequential nature of our developments in the field of AI. The result of this ignorance is that we fail to ask important questions while the development of AI continues. Harris isn't just worried about the 'evil robot takeover'. He points out that the advancement of AI can lead to a stage where it would be indifferent to humans, much like humans are indifferent to the existence of ants. It threatens the entire foundation of Human supremacy on Earth. (Davey, 2016)

I believe that the contemporary scientific debates about consciousness in AI fail to phantom the complexities of the subject consciousness. When we look at consciousness as an objective phenomenon, it becomes easier for us to replicate it in the material realm. When we talk about 'making AI human' we fail to understand that humans themselves are yet to completely comprehend consciousness.

We must have these discussions before talking about conscious AI because consciousness provides us with a sense of identity and superiority over other organisms. Our conscious experiences often shape the way we view the world, determine right and wrong and think of concepts like justice and fairness. We build value and belief systems based on our conscious experiences and awareness of the world.

What happens when a conscious being smarter than us starts occupying the same space as us? A more frightening question is, what if the apple watch you wear and the google map you operate are conscious? Do they deserve rights? Can we switch them off on our whim? Is that ethical? How is the incessant usage of conscious machines any different from slavery?

This particular discussion has the potential to make us rethink the foundations of how we conceptualize human rights, structure society, and even the foundational power structures of human civilization. What if a robot is more competent than a human, should we allow it to rule us? We are at the stage of history where humans might have to work towards re-establishing their dominance over other creations. One can go on and say that we should stop the development of AI. Here we find ourselves in a dilemma between advancement and the status quo. But is the fear of potential dominance a good enough reason to stop all technological development? Another interesting question is whether AI is superior or not. Many scientists believe that since AI is our creation, it can never surpass us. But I do believe that it is just wishful thinking. We already have AI which possesses more IQ than an average human, they can solve problems that many humans cannot and process information at a rate no human can fathom. But then what is stopping them?

The answer lies in our understanding of consciousness (or the lack thereof). Even though we can create artificial intelligence, we cannot do the same for our subjective experiences. We, at least not yet, cannot give AI the ability to have personal subjective experiences. But this reason is subject to our take on consciousness as well. Do we consider those subjective experiences a part of consciousness, separate from its cognitive functioning or a by-product? We can go on to speculate further but the truth of the matter is that we just don't know yet. Or if we do know, not all agree on one definition.

4.0 Different Schools of Thoughts on Consciousness

4.1 Dualism

Many argue that the first person to talk about dualism is Rene Descartes but I would like to make a case that the earliest account of the dualist theory of consciousness comes from Plato. In this dialogue, 'Phaedrus', he talks about the nature of the soul. The way he defines the soul, i.e., the element which helps us in making moral decisions, it helps us

understand the world around us, etc., makes us believe that he was talking about our consciousness. Even when we try to articulate our consciousness today, we are usually referring to our ability to think, experience, reason, and so on. This is very similar to the notion of soul given by Plato.

He believes that the soul and body are two distinct elements, and when they come together, they form the 'living being'. It is important to note here, that this assumption of his, leads us to believe that soul or consciousness isn't exclusive to humans. Another important aspect is that the soul is superior to the body. The soul is immortal, it doesn't have a source, it is the source in itself. The true identity of a being resides in the soul for Plato, the body is in reality a shell that the soul longs to liberate itself from. Through his writings, he creates the idea that consciousness isn't standard for all human beings. He further goes on to say that the soul which hasn't caught any glimpse of reality, cannot be human. Here Plato does two things, he creates a hierarchy amongst humans and also establishes the supremacy of humans over other living beings.

He also claims intelligence is the soul's 'guide' towards becoming a 'True Being'. A true being is the closest a soul can come to being God, it possesses all the true knowledge. Only intelligence can see the true being and help the soul to attain that form. Plato tries to explain the nature of the soul through the allegory of the chariot, where the soul is a charioteer and two horses, one noble and good and the other opposite. Intelligence and logic are the charioteers which help manage both the horses and attain true being. (Plato, 370 BCE)

Plato talks about consciousness not being one thing, he marks out different elements of consciousness like intelligence, innate desires, and rationality. Similarly, today we talk about cognitive actions, memories, experiences, values, and desires interacting with each other to make decisions, and this interaction is considered to be consciousness. However, the notion isn't without its limitations.

Plato talks about heaven; this concept helps him justify a lot of claims he makes regarding the level of consciousness in different beings and his claim that the soul is immortal. Since heaven isn't part of the material realm according to Plato, one cannot find empirical evidence to prove its existence. He also claims that it is only philosophers amongst humans who comprehend the existence and the full reality of heaven. He goes on to also claim that philosophers who do talk about this realm are considered insane by others. By saying that he does shield himself from obvious criticisms but still does not answer the question of how one can know of the existence of heaven. This leads us to the state of limbo, where a particular argument cannot be completely disproven or proven.

What is the theory's implication for the

contemporary debates on AI? According to dualism, consciousness doesn't exist in the physical realm, this means it is not made of atoms. Hence, humans cannot create it in the physical world. According to this notion, AI would never attain consciousness. But we have observed that intelligence, emotions, and to a certain extent personality have been artificially engineered into AI. According to Plato, these aspects are part of consciousness. Then how are these aspects engineered in the physical realm? Does it mean Plato is wrong about what consciousness consists of but right about its origin? Presently we have no way of knowing the answer.

The dualist approach resides at one extreme of the spectrum, the other end is occupied by the materialist school of thought. We shall now proceed to understand its meaning and implications on AI.

4.2 Materialism

Materialists reside at the other extreme of the spectrum in our understanding of consciousness. They reject the existence of an immaterial world. Mind resides in the physical/material world and can be explained by it. They believe that consciousness is causally dependent upon the physical processes of the brain. (Smart, 2021) They attempt to create a correlation between brain activities and conscious experiences. Many leading theories like the Global Workspace Theory (GWT) try to explain consciousness through physical brain activities in the brain.

GWT talks about a cognitive architecture called 'workspace' where there is the integration of different elements like memory, perceptual systems values, etc. Then this integrated information is globally broadcasted hence this neural activity is non-localized. When an information integration is localized, it can be deemed an unconscious activity according to the theory. The Global Neuronal Workspace model later goes on to answer why these integrations are globally broadcasted. They propose that sensory stimuli send an excitatory signal to axons producing patterns of activity throughout certain neurons globally in the brain. This global pattern is consciousness and is stimulated by sensory signals. This also goes on to indicate that according to this theory, actions which do not possess sensory stimuli, aren't conscious. (Porter, 2019)

Another similar theory in recent years is the Information Closure theory (ICT) of consciousness by Acer Y.C Chang, Martin Biehl, Yen Yu, and Ryota Kanai. They propose that the neural system is informationally closed to the conscious experience that we have, that is why we cannot have a first-hand experience of the neurons firing in the brain. In cases of conscious experiences, the system's sensory stimuli interact with the environmental change and provide us with consciousness. They also talk about predictive memory in their theory, where the person is engaged in an activity but is not conscious, becomes the sensory stimuli of the system,

and doesn't interact with the actual environment but uses the memory it has of its previous experience. Though ICT provides us with a new understanding of conscious and unconscious experiences, it is still a developing theory. It is yet to provide a decisive answer when it comes to classifying dreams and imagination as conscious or unconscious thought. (Chang, Biehl, and Kanai 2020)

The materialists believe that they have no reason to believe in the existence of an immaterial world. Hence, for them, the answer lies in a deeper investigation of the brain. Some materialists also believe sensation and thoughts exist in addition to material processes but they do not have a causal efficacy on their own. Hence, they can only be understood by observing the material processes. One of the most dominant strands of materialism is functionalism. It says that the internal constitution of the brain has little to do with understanding consciousness. It focuses on the processes, specifically causal relations to expand their understanding. This line of thought took root in Aristotle's concept of soul. They work on the premise of understanding the correlation between brain activity and human actions and experience. (Levi, 2004)

But no materialist theory to date has been successful in explaining the subjective aspect of consciousness. They are successful in explaining how conscious experiences happen, but they fail to tell us what exactly they are. This problem can be understood by engaging with the Chinese room thought experiment proposed by John Searle. (Cole, 2004) Hence, if we use the current development in materialist theory, we may develop AI that might look and act very similar to humans, but they would lack in essence the human-ness that defines us all.

What can we say about advancement in AI? When I see the current materialist understanding of consciousness, we see that no theory has narrowed down a region of the brain where these activities take place and why. They have not answered the fundamental questions of their theories. For example, the GWT doesn't address how exactly the Global workspace comes into being? The ICT is yet to clarify where exactly consciousness resides and it can also be speculated that it doesn't reside in the brain at all. I believe thinking of inserting AI with artificial consciousness, even if it's something basic as the cognitive architecture like in GWT, is hasty conduct. We do not understand the implications of the actions we are hoping to engage in, such a blinded approach can prove dangerous if not life-threatening.

4.3 Panpsychism

Panpsychism believes that everything has consciousness. It would mean every cell and atom would have a degree of consciousness. In broad terms, they define consciousness as the integration of information. The most recent and popular

example would be the Information Integration Theory by Giulio Tononi. It attempts to quantify the integration of information in the brain by the variable phi and by evaluating the level of phi, determines whether something/ someone is conscious or not (Tononi, G. 2015). Through this, the theory has successfully determined if a particular subject is conscious or not. But this raises a different but very important question. Does the fact that everything possesses consciousness, warrant them a degree of consideration as individuals? Do your watch and nails deserve right because of the low-level consciousness they possess? One can argue that maybe we can set a limit at which subjects would become eligible to have rights and get consideration. But how are we going to set that eligibility criterion? What happens when humans in a vegetative state account for less than high-functioning AI? Do we consider that AI is more important than humans?

Many materialists like Ned Block believe that integration of information would refer to the intelligence of a particular being and wouldn't completely solve the problem of understanding consciousness. Thus, an iPhone despite having a high amount of phi wouldn't necessarily be considered conscious. This calls for a greater characterization of the value phi. The calculation of phi itself is rather complicated making it difficult for scholars to find an average phi for humans, animals, and AI. (Gary,2013) Another issue with IIT is it doesn't explain what is different in the consciousness of a human and AI or animals. The explanation is very important to answer the many ethical questions panpsychism poses.

I believe it is the heightened sense of introspection and self-awareness that sets humans apart, but the fact remains that we are yet to completely understand this very personal and subjective conscious experience of ours. This also raises another question, how are we sure the AI is not having these subjective experiences? To get an answer to this question we shall now discuss another interesting school of thought championed by philosopher John Searle, named Biological Naturalism.

4.4 Biological Naturalism

This school of thought also dismisses the existence of an immaterial world. It says that consciousness is a biological phenomenon, just like digestion or photosynthesis. It is a high-level brain activity, which we haven't yet fully understood and hence cannot replicate. He provides a very clear definition of consciousness, "Consciousness consists of all those sets of feelings, sensations, and awareness that begins in the morning when you wake up from a dreamless sleep till night when you fall asleep or have an unconscious experience." Hence, according to him, a dream would be a conscious experience.

Despite it being a normal biological phenomenon, he acknowledges that consciousness is special. Hence, he says

consciousness is ontologically irreducible, due to the first-hand subject experience humans have. He doesn't try to fit the understanding of consciousness within the known principles of science or build up another realm to explain it. He accepts the uniqueness of consciousness to what it seems like and builds his theory. Another interesting aspect of his theory is how he resolves the mind and body problem of philosophy. He says, when we are engaged in any conscious activity, there are physiological processes like the release of acetylcholine and firing up of the neurons, etc at the same time, we are having the conscious experience in the form of thought to engage in that conscious activity. The latter part of the process, the subject, semantic aspect of consciousness is what makes it unique and it is also something neurobiology hasn't been able to articulate yet. Once we attain a complete understanding of the 'semantic aspect' or the qualia. We shall be successful in creating conscious machines. (Searle, 2004)

Biological Naturalism is different from other ideas because it acknowledges the answers it doesn't provide and provides strong backing to the claims it does make. I believe it gives us a concrete foundation to understand consciousness for the same reason. It provides us with the much-needed balance between dualism and materialism and also avoids grave ethical problems panpsychism places. This view of consciousness seems sound to me because it doesn't require any out-of-the-box assumptions. At the same time, my only issue with the idea would be the lack of clarity regarding how to conceptualize that high-level functioning of the brain or qualia. Even its claim that dreams and imagination are a kind of consciousness requires more clarity. Searle concedes that his definition isn't scientific. But I believe that if one claims that a particular phenomenon is biological, its definition should have sound scientific backing. This particular idea can act as a much-needed lucid but temporary gap-filler when it comes to our understanding of consciousness. But it is important to know that it is not complete.

An important implication of this idea is that it prolongs or postpones the possibility of conscious AI. Searle even goes as far as to say that passing the Turing test doesn't prove that the AI is conscious. He justifies this by saying that the test just evaluates intelligence and not consciousness.

5.0 Conclusion

Based on my observation the first, i.e., dualism is an ideal example of how humans try and explain something in the absence of scientific explanation. Believing in the dualist theory becomes a matter of faith because it is rooted in the assumption that an immaterial realm exists, whose existence cannot be empirically proven. It completely dismisses the possibility of a conscious AI, for me, such an approach seems more like denial of the dangers yet to come. Materialism on the other end of

the spectrum hasn't been successful in providing us with a satisfactory answer, but at the same time has made major headways in trying to understand the process behind a conscious thought. This leads us to believe that at the status quo, even though we cannot create conscious AI, we can create AI which can exhibit behaviour very similar to a conscious being. That itself should be a cause of worry and discussion for philosophers and scholars. Biological Naturalism as stated before can be treated as a temporary placeholder but not a universal theory of consciousness, at least Searle provides us with more answers.

I believe panpsychism fails to completely understand the depth of consciousness. It says consciousness can be the integration of information but is that all consciousness is? We often derive our sense of identity from our consciousness, there is an innate sense of personhood which each individual feels. Dr Brian Little in one of his talks said that to understand someone one needs to ask what makes the person unique. Dr Little articulates them as 'core projects', projects one cares very deeply about, which makes one act 'out of character' (Little, 2016). I believe our consciousness plays an important role in determining what these core projects are.

Hence, I'm not sure if consciousness can be explained merely by the integration of information. Another interesting implication is that this paradigm says that AI already has some level of consciousness. For me, it becomes a slippery slope. What is the basis with which we humans are better than others? Why do we deserve rights and a good life? It questions the foundation of human civilization and gives rise to many ethical questions. What would we do if a better species occupied the Earth along with us? Would ethics call for us to accept defeat and become slaves or would we expect us to fight for our supremacy and survival? What would be the rationale behind fighting back? But even before we answer those questions the most important question is, should we not create a better species when we know how to, just to safeguard ourselves from a battle of supremacy? What is important development or supremacy?

I would like to conclude by noting that the implication of articulating consciousness isn't just limited to Artificial Intelligence. Defining consciousness becomes a tougher task when we also acknowledge the heterogeneity of the human race when it comes to the degree to which they engage in conscious acts like introspection, self-awareness and even thinking. I believe engaging in the question of consciousness means engaging in the quest to understand humans better. Today we find evidence in the brain which provide us greater insights into the nature of humans themselves. An ideal example would be mirror neurons. The existence of such neurons can be proof that humans have the biological ability to be empathetic and understanding of another being's pain. Another aspect that makes the study of consciousness

interesting is our vested interest. We want consciousness to be a certain way so that it can answer the questions we long an answer for. It is possible that the real definition of consciousness might fail to explain the reason behind philosophical zombies and free will, but that would be a very undesirable outcome for all of us. Hence, I do believe that the expectations we have from the definition itself make it difficult for us to establish a general consensus. Another issue this that the study of the subjective experience and perception of humans is subject to the subjective perception of humans. How do we make sure that what we see and what we understand is the reality or the illusion created by our own conscious? This alone can make one's head spin. But the study still merits careful and rigorous engagement, majorly because it would be key in answering humanity's many unanswered mysteries.

References

Aristotle. 350 BCE. On the Soul. https://antilogicalism.com/wp-content/uploads/2016/12/aristotle_anima_final.pdf

Ayan, Steve 2018. "There is no such thing as Conscious Thought." Scientific American. December 20, 2018 https://www.scientificamerican.com/article/there-is-no-such-thing-as-conscious-thought/

Britannica, T. Editors of Encyclopaedia. 2016 "Cartesian circle." Encyclopaedia Britannica, Accessed November 1, 2021 https://www.britannica.com/topic/Cartesian-circle

Chang Acer Y.C, Biehl Martin, Yu Yen and Kanai Ryota. 2020. "Information Closure Theory of Consciousness" Frontiers in Psychology https://www.frontiersin.org/articles/10.3389/fpsyg.2020.01504/full

Cole, David. 2020 "The Chinese Room Argument." The Stanford Encyclopaedia of Philosophy, Accessed November 8, 2021 https://plato.stanford.edu/entries/chinese-room/

Davey, Tucker. 2016 "Sam Harris TED Talk: Can we build AI without losing control over it?" Accessed November 8, 2021 https://futureoflife.org/2016/10/07/sam-harris-ted-talk/

Kuhn, Robert. 2003. "Ned Block- What is the Mind Body Problem?" Released February 2021 at Closer to the Truth. Video https://www.closertotruth.com/interviews/47344

Levin, Janet. 2021 "Functionalism." The Stanford Encyclopedia of Philosophy, Accessed November 1, 2021 https://plato.stanford.edu/entries/functionalism/#MacStaFun

Little, Brian. 2016. Who are you, really? The puzzle of personality. Released July 19, 2016 by TED. Video https://youtu.be/qYvXk_bqlBk

Marcus, Gary. 2013 "How much consciousness does an iPhone have?" June 6, 2013. The New Yorker https://www.newyorker.com/tech/annals-of-technology/how-much-consciousness-does-an-iphone-have

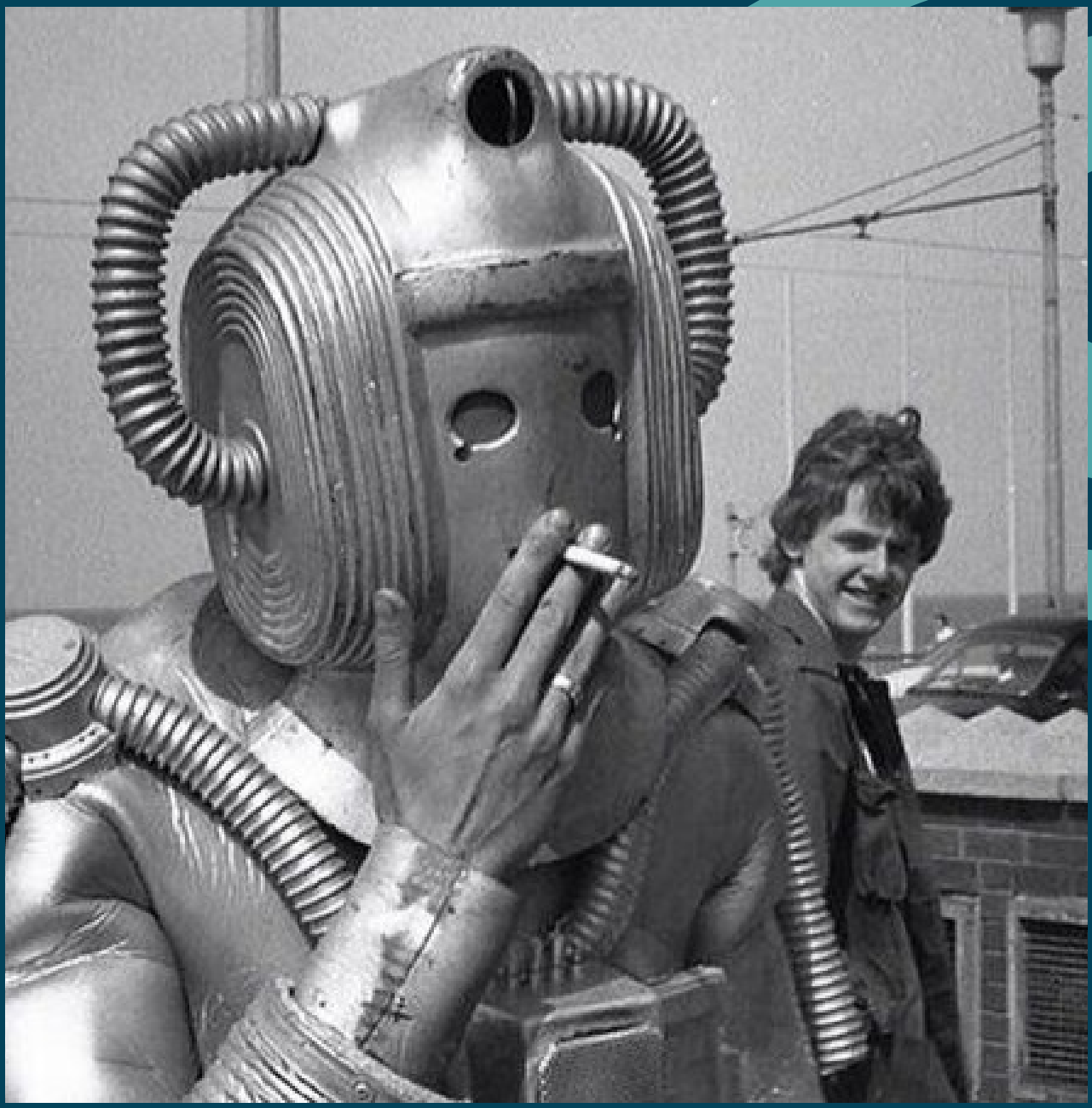
Plato. 360 BCE. Phaedrus. http://classics.mit.edu/Plato/phaedrus.html

Porter, Alan. 2019 "The Mystery of Consciousness, Part 6: Materialist Models of Consciousness such as the Global Workspace Theory and Correlates of Consciousness" Porter Medium https://portermedium.com/2019/08/the-mystery-of-consciousness-part-6-materialist-models-of-consciousness-such-as-the-global-workspace-theory-and-correlates-of-consciousness/

Searle, J. R. (2004). Mind: A brief introduction. Oxford; New York: Oxford University Press.

Smart, J. Jamieson Carswell. 2021 "Materialism." Encyclopaedia Britannica, Accessed November 4, 2021 https://www.britannica.com/topic/materialism-philosophy

Tononi, Giuloni. 2015. "Integration Information Theory" Scholarpedia http://www.scholarpedia.org/article/Integrated_information_theory



Actor in a Cyberman costume takes a cigarette break. The 'Cyberman,' the quintessential cyborg character from the 1960s British TV show Doctor Who, is one of the earliest depictions of a man-machine hybrid in popular culture. The cyborg in print and screen science fiction has generally been portrayed negatively, betraying a clear anxiety in the popular imagination about such a state of human existence.

Platonic Prescriptions for the Big Tech Oligopoly

Gauri Bansal
Department of Political Science, Lady Shri Ram College

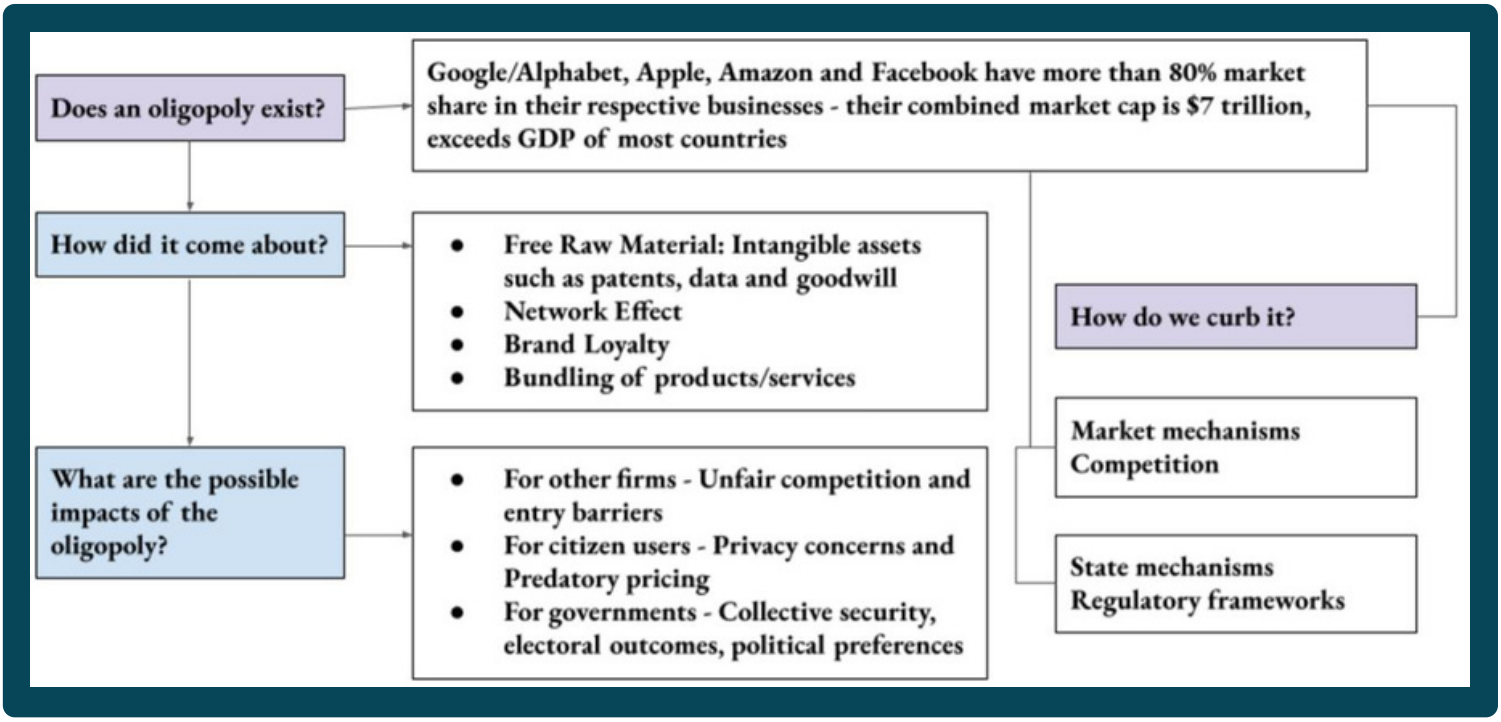
Abstract

A major dimension in the global restructuring of power distribution has been the governance of cyberspace. With vertical and horizontal percolation of the internet and platform intermediaries, there have been efforts to devise a robust regulatory framework that delineates rights of citizen-users and non-state actors such as tech-companies. This paper starts by explaining the extent of wealth concentration and its origins in Big Tech and exploring the relevance of Plato's axioms of economic organisation to fill the regulatory vacuum. The research combines a qualitative and quantitative methodology through a thematic analysis of Plato's original texts extrapolated to data-based contemporary case studies. It reviews existing literature across multiple standpoints to trace the relationship between contemporary capitalism, and Plato's conceptions of justice and eudaimonia. Plato's foretellings of excessive wealth and its consequences have been analysed in consonance with current market monopolies and the network effect enabled by the internet. Within Plato's progression of polities, the Big Tech landscape is classified as a degenerating oligarchy. His conceptualisation of the guardians of law and the second best state can be adapted to provide a foundation for platform governance within a temperate economy. Due to the dialogic form of writing premised on baseline virtues, there is a possibility of interpretive bias and insufficient scientific rigour. The research is overarching in scope and can be further specialised to explore location-specific variables and existing competition law.

Keywords: *Plato; ethics; economics; justice; technology; wealth; monopoly*

1.0 Introduction

For a long time, Silicon Valley in the United States has enjoyed an unencumbered embrace around the world as the hub of path breaking innovations. However, as it amassed huge networks of wealth, user base and impact, recent developments have pushed Big Tech to a point of no reputational return. From antitrust bills pending in the US Senate to enforcing compliance to the IT Rules closer home, efforts are being made to arrive at a global regulatory architecture for the technology linked market sphere. The Overton Window of digital governance extends from the concerns over fair competition to those about national security and privacy. As technology became ubiquitous, the growing economic influence of tech firms has lent them the role of knowledge brokers, providing platforms for the production, processing, transfer, and sharing of large volumes of information (Ghosh and Srinivasan 2021). The market capitalizations of the five FAANG companies, Facebook, Apple, Amazon, Netflix, and Google, exceed the economy of France. If Facebook were a country, it would have the largest population on earth (Sagers 2019). Thus, their financial power



came to be fused with political, economic, cultural and informational power, making them a prime target for populist backlash. These firms enjoy several natural advantages that breed monopoly power: information asymmetries, the network effect that enables limitless expansion, gatekeeper rents in the form of data, conducting unrestricted commerce on their own platforms and possession of the legal and political muscle to keep the rules of the game in their favour (Foroohar 2019). Market monopoly further lends them a psychological monopoly in political discourse since they shape the political attitudes, behaviours and electoral outcomes at a large scale, posing significant risks to a non-partisan and well functioning democracy (Santesteban and Longpre 2020). This article aims to explore the nature of oligopoly that Big Tech commands and what the counter-weighing regulatory landscape can import from Plato's ideas on political economy.

Plato, the classical Greek philosopher, offers an ethico-economic structure of society. Plato's ideal state consisted of the four virtues of social wisdom, social temperance, social courage and social justice (Kotsonis 2019). While contemporary welfare analysis is premised upon the belief that welfare is achieved when at least one individual can satisfy needs without others' detriment, Plato's analysis explains welfare in terms of majority people coexisting happily in a regulated economy even as the appetitive urges of a few remain unsatisfied. In consonance, welfare for many can be improved through the institutionalisation of moderation or temperance (Plato 375BC).

While the search for common good has been emphasised upon by many such as Vilfredo Pareto and Nicholas Kaldor, contemporary mainstream economics omits issues of equity, fairness and justice

with its narrow focus on cost-benefit analyses and utility maximization (Sandmo 1995). Plato emphasised that empirical knowledge is a relatively imperfect form of knowledge when compared with a priori knowledge. This explains the basis for the Platonic question of "Ti esti?" or "What is it?", in opposition to Karl Popper's version of "What does a thing do for man?" (Moural 2016). The economic model premised on accumulation is based on faith in the "invisible hand", automatic mechanisms that make a market operate efficiently if individual actors behave rationally to serve their own interests. This conceptualisation undermines the systemic risk created by excessive concentration of wealth that further affords a lack of transparency, accountability and democratic spirits (Gill 2004). From the epochal railroads to the energy markets in the 1990s and the financial industry of 2007, there are many examples that demonstrate the inability of companies to undertake measures that cutback their own operations and profits (Norris 2021). Industry self-regulation remains an unrealised utopia. As a result, in the Darwinian struggle for market shares, they dominate their spaces such that they don't just lay claim to a market, but seize the market entirely.

Plato can be considered as a predecessor of the optimal resource allocation theory. Oligopolies are a result of high investments, strong consumer loyalty and the establishment of an economy of scale - all three of which are remarkably present in the Big Tech atmosphere that leverage a wide user base (Groenewegen 2011). Plato's foremost assumption is that man desires happiness, which is the ultimate end, agathon. Thus, in order to arrive at an organisation of the economy which produces happiness, he tied it to the notion of social welfare, or happiness for all. The main components of Platonic thought thus become the analysis of what is considered good, agathon, and the realising the good for whom? The goal is the pursuit of the virtuous, subsequently happy life, eudaemonia that results from the knowledge of the good (Plato 375BC).

Even within the framework of modern capitalism, Adam Smith proposed that you needed transparency, equal access to information, and a shared moral framework for markets to work (Bouchet, 2017). While the first two have been the subject of most regulations in the digital sphere, a shared moral framework is yet to be arrived at in the digital political economy. In the absence of a singular governing logic, Plato's work offers a range of ideas that can be imported to lay the foundation of this framework. Without an appropriate economic foundation, he held that neither the ethical nor the social dimensions of society would be oriented towards the ideal good. Plato adequately grasped the pull of liberal individualism and described the historical deterioration of society moving from aristocracy to tyranny. The pursuit of profit beyond fair measure and moderation hampers the Platonic ties of reciprocity

and community good, inhibiting the materialisation of social justice (Plato 375BC).

The end of the Cold War marked the commercialisation of the internet. Economic deregulation in the telecom industry was accompanied by the notion that it would be governed as per market democracies. As a result, the internet adopted laissez-faire norms to achieve the highest possible economic outcomes (Tymoigne, 2009). However, as inequalities in these returns widened, it reinforced a unipolar world order and as a byproduct, the power of global institutions declined. With the rules underwriting Big Tech being drawn in an incubator of economic and political hegemony, around the world, governments are seeking to reclaim the Wetsphalian balance of power with the primacy of nation-states. By proposing new laws to increase platform liability for harmful online content, they are using antitrust rules to dilute the influence of Big Tech. While external regulations might not be a panacea for all issues associated with large social media platforms, increasing competition reduces the dominance of a few firms in the market, reducing their control over our social discourse (Budzinski and Mendelsohn 2021). This research thus aims at answering the following questions -

(i) What is the relevance of Plato's virtue of moderation for the economic organisation of Big Tech?

(ii) Can Plato's description of the perils of wealth accumulation be witnessed through the contemporary logic of accumulation?

(iii) Is the Big Tech oligopoly symbolic of a degenerating oligarchy?

(iv) How can we evolve a regime of platform governance through Plato's conception of "Guardians of Law" within his framework of division of labour?

(v) Can we arrive at a temperate economy through Plato's prescriptions of the "second best state"?

2.0 Methodology

In an attempt to integrate primary and secondary research, this paper primarily relies on excerpts from Plato's original works, namely, the Republic, Laws and his dialogue in Eryxias, which is often termed as the "first manuscript of political economy". In addition, it features an extensive examination of the existing literature, comprising books, journal articles, news reports and legislative bills, to understand the contemporary relevance of Plato's ethico-economic thought, its proponents as well as the associated criticisms. The paper utilizes quantitative data to explore the theme of Big Tech monopoly, its nature and impact, combining it with a thematic analysis of Plato's work in order to yield a logically coherent perspective.

3.0 Literature Review

While Plato's ideas are often evoked in the context of political reconstruction and the stage wise progression of state systems, his

contributions towards economic analysis are overlooked. Even though 21st century political economists rely on positivist value-free science, it was not uncommon during antiquity to incorporate normative analysis within the realm of scientific investigation.

Economists have put forward how *contemporary developments of capitalism* compromise the original values that enable it to function, replacing the anthropological types with quantitative values. Proposing an ethical foundation for economics, they analyse Plato's notion of economic wealth linked to human fulfillment and flourishing, *eudaimonia*. They emphasise upon the instrumental and functional, and not finalistic conception of riches, *ploutos* wherein it is just a means to a good life when practised in harmony with virtue (Marsh 2001).

All the gold on earth, or under it, does not equal the price of goodness (Laws V, 728 A 3–4).

With 81 occurrences of *ploutos*, in its original form, it is a consistent theme in Plato's works. The crucial idea for Plato is thus the well-intentioned usage of wealth and the collective conceptualisation of economics defines "justice as reciprocity" consisting of fair exchange between community (*koinonia*) of interests. In Nicomachean ethics, Justice is the "perfect virtue" - it is directed not only towards ourselves but towards others. Thus, if wealth is accumulated, it would defy this defy this fundamental principle of social justice and reciprocity (Marsh 2001) .

Thus, this research elucidates how, unlike modern conception of economic efficiency, Plato helps us delineate both the individual as well as social limits to economics. Amartya Sen summarises it through these two questions - *(i) how should an individual agent live an economically flourishing life for oneself? and (ii) how should an individual agent contribute to societal welfare?* (Sen 1987). Based on this discussion, *eudaimonia*, or the achievement of the ultimate good through a virtuous life is incompatible with oligopolies in the market sphere. To extrapolate it to the Big Tech regulatory sphere, the accumulation of vast amounts of data and wealth acts as a mechanism for reproduction of capital and perpetuation of dominance. The inability of Facebook to detect and moderate hate speech that caused violence in Myanmar is an example of its impact on collective socio-political behaviour. The ethical dilemma between freedom of expression on the internet and the reinforcement of communal divisions has played out in multiple scenarios, for instance, violence against religious minorities in India and most recently, Bangladesh (Fink 2018).

Robin Waterfield points out the *reductive interpretation of justice* in modern analysis of Plato. He chooses to accept Aristotle's conceptualisation of morality through dikaiosune, an all-encompassing term. While John Rawls himself acknowledged

that he restricts the concept of justice to fair and impartial distribution of wealth, other scholars such as Iris Marion Young and Michael Walzer have echoed the broad Platonic centrality of justice. For Plato, the tendency towards seeking excess can be described as the "nightmare forces of chaos and evil." In his view, Plato outlines a primarily economic basis for social disorder (Waterfield 1993).

In order to align the Big Tech sphere with a broader notion of justice, the research in applying the principle of *common but differentiated responsibilities* to justice becomes important. Following the notion that unequals must be treated as unequals, they call for a redistribution of economic and social resources in accordance with existing baseline inequities that shape the identity of individuals and institutions (Barral and Virginie 2020). Lawyer Lina Khan, in her influential article, Amazon's Antitrust Paradox, posits that markets might not be the perfect exemplar of competitive harm; international regulatory efforts must be futuristic. She expresses her concerns over the short term consumer welfare standard these companies are subjected to, which act as a smokescreen, pushing long-term impacts on the economy and society under the market (Khan 2020).

Scholars like Moses Finley propose that during classical antiquity, economic analysis was not present since there was no concept of a formalised economy. With regard to Plato and other ancient writers, he emphasised that they were keen towards specialisation instead of the division of labour (Finley 1979). However, it is apparent that Plato propounded both the need to maximize quality as well as the means of production:

And so more tasks of each kind are accomplished, and the work is better and is done more easily when each man works at the one craft for which nature fits him (Republic 370A- G).

Thus, while Plato does not analyse the mechanics of market operations, he does offer a *transcendental deduction of the nature and existence of markets*, laying the foundation for the concept of an economy. Plato conducted an experiment wherein he attempted to test the hypothesis that the economy exists to sustain material infrastructures which can support the political community as a whole. Economic markets were constrained by the need to perpetuate social cohesion (Plato 375BC).

The economist Joseph Schumpeter has critiqued the branding of tech firms as "monopolies", since in his view they provide cost effective services that are popular with users. He finds the appraisal of their economic wealth presumptuous, whereby the only way to determine the consequences of market capitalism is to analyse them in the future. Thus, he would not support the application of Platonic thought on monopolies and oligopolies, since what drives the economy in his conception is the development of new

commodities and newer organizational methods (Collins et al. 1992). However, given the concentration of wealth in cyberspace, with 80% of corporate wealth being held by just 10% of companies, these firms are leveraging the new oil of our economy, information and networks (Nast 2021).

4.0 Discussion and Analysis

The economic sociologist Karl Polanyi, gave the term *"embedded economy"* to express the idea that economy is immersed in social relations, such that it cannot be a separate, autonomous sphere divorced from society as a whole (Stodder 1996). While this idea is echoed in the work of Karl Marx and critical theorists through the base-superstructure correlation, its origins can be traced to Plato's ethico-economic structure of society (Keena 2021). *Eudaemonia*, the flourishing and virtuous life in Plato's philosophy, requires the pursuit and fulfillment of the cardinal virtues - wisdom, courage, moderation and justice, which are applied to the state and the soul alike.

4.1 What is the relevance of Plato's virtue of moderation (sôphrosunê) for the economic organisation of Big Tech?

It is a combination of the beliefs of consonance (*sumphônia*) and harmony (*harmonia*) with a certain disposition to support order, *kosmos*. In the economic sense, it implies that Individuals must be temperate in their desire to accumulate wealth, must be liberal with the wealth they accumulate and be fair and just in their dealings with fellow citizens. He compares the appetitive or greedy part of the soul to an "unruly horse" that is hard to control. Moderation then becomes an organising principle for citizens in their private lives and for the state's public affairs, leading to happiness as a whole. Plato recognised that the absolute size of wealth shall only increase proportionately and any surplus value must be turned to the government in this way the wealth of Magnesia would be distributed in just proportions. He propounded a symmetrical consumption pattern between citizens and a rate of wealth with a maximum and minimum threshold for its growth (Plato 375BC).

In order to assess if the virtue of moderation holds true for the Big Tech sphere, let's consider the rate of wealth increase of these firms. In the year 2020 alone, tech barons increased their wealth by 56% - from a valuation of $419bn to $651bn (Lawson 2021). To contextualise the figure, the money required to vaccinate the entire world from Covid-19 is less than $25bn (WHO, 2021). This was made possible by no-cap investments that yield large returns and paying lesser corporate tax by leveraging loopholes - both resting on a foundation of inadequate regulations for this sphere that place no specific thresholds for wealth accumulation. The nature of the services these firms provide is inextricable from the dominance they have. With operations in

social networking, advertising backed search engines and communications, the psychological monopoly these firms have provides the cultural backing to their financial hegemony, rendering it legitimate in popular discourse. While the tendency towards monopolization has been intrinsic to capitalism, the presence of network effects - the incremental benefits that arise from every new user joining their platforms, provide an unprecedented scale of growth.

4.2 Can Plato's description of the perils of wealth accumulation be witnessed through the contemporary logic of accumulation?

Plato compares a well ordered city to a human body at equilibrium. In undernourishment, both wither, and if overfed, they lose fitness and become subject to disease. The city, like a body, is a finite system requiring a constant influx, outflow and movement of matter and concentration of matter or wealth at any one point is detrimental. He attributed a luxurious city to the degeneration of souls of its inhabitants. In a safeguard against this psychological deterioration, he espouses a theory of flux. Similar to modern entropy, he traces the decay of wealth and its dissolution into dust with time - money has the power to undermine, displace and destroy the foundational ethical values. (Republic, 564c).

Shoshana Zuboff describes Big Tech as birthing 'a new logic of accumulation' called *surveillance capitalism*, based on data extraction and processing (Zuboff 2019). The psycho-social effects of Big Tech operations are best described by Chamath Palihapitiya, the former president of user growth at Facebook wherein he critiques the short-term dopamine driven feedback loops created by tech services of these platforms. In his view, they are disrupting the foundations of how societies were wired to work - tampering with civil discourse, increasing polarisation, misinformation and eventually determining a version of 'truth' that is guided by commercial interests alone (CNBC 2021). Beyond these effects, the political consequences of their operations have led to coinage of the term *"platform state"*. Discussions over sovereignty of nation-states being eclipsed by digital behemoths have arisen given their role in determining electoral outcomes (Tavani 2007). For instance, in Russia, a firm called the Internet Research Agency, drew thousands of users to Facebook groups to stoke outrage for an experiment. They leveraged Facebook to organize offline demonstrations, and bought specific Facebook ads intended to hamper Hillary Clinton's reputation among Democratic voters. With fewer than a hundred operatives controlling the exercise, the organisation reported astonishing results: the content reached and potentially shaped the attitudes of as many as 150m users (Zwitter and Hazenberg 2020). With over 87% of Facebook's global budget spent on classifying misinformation in the United States even as India constitutes its biggest

market by user base, it has been receiving flak in political circles ("Antitrust Regulators V. Big Tech: The Battle Reaches India" 2021).

Socrates developed the following maxim,

Extremes of riches and poverty are to be avoided anywhere in the city. For either saps the devotion of a worker for his craft, breeding luxury and idleness in the one case, meanness and villainy in the other, and political unrest in both (421C–422A).

Political unrest around the world has definitely been a consequence of Big Tech consuming the lion's share of the monetary pie. For instance, this year, the US Federal Trade Commission sued Facebook for its illegal acquisition of rival social media apps, Instagram and WhatsApp. In addition, its involvement in the Cambridge Analytica resulted in a $5 billion fine levied by the Trade Commission. The European Union (EU), which is home to the General Data Protection Regulation (GDPR), spearheaded antitrust investigations against Facebook to evaluate its ability to distort competition. With a host of fines and sanctions coming its way, Big Tech has a widening trust deficit to bridge, especially in Congressional spaces. Big Tech's lobbying expenditure reached $64m in the US in 2019. With Google overtaking Goldman Sachs as the biggest spender on political donations, there has been a drastic rise in Big Tech's pressure on public policy (First and Fox 2020).

4.3 Is the Big Tech monopoly symbolic of a degenerating oligarchy?

In his work Republic, Plato discusses the five regimes of aristocracy, timocracy, oligarchy, democracy and tyranny, degenerating from one stage to another. From the standpoint of this article, the rise of oligarchy, in a society characterised by wide income disparities between rich and poor and a narrow apex of political control, can be paralleled to oligopoly existing in Big Tech. In oligarchy, reason becomes subordinate to desires:

"..the only calculations and research he allows his rational mind to make are concerned with how to start with a little money and increase it" (Republic 553d).

Placing money at the supreme pedestal, oligarchic individuals are thrifty and hardworking, as a result of which they face internal conflicts since *"the better desires are in control of the worse ones"* (Republic 554d). Plato signalled that acquisition and its associated appetites constitute the lowest common denominator in human motivation and in the human understanding of value. However, on the contrary, the philosophy of Big Tech firms having built their way to the top is often acclaimed as a legitimacy lending narrative, popularly called the *"hustle culture"*. However, the dark side of this hustle culture is surfacing. Workplace environments in the United States are touted to be responsible for 120,000 excess deaths per year and an additional 180 billion dollars being spent every year in

in healthcare expenses, approximately 8% of the total healthcare spending (Hurley et al. 2016).

This psychological and physical deterioration in the overall quality of life can be traced to *Marx's alienation* - losing the ability to determine life and destiny due to an increasingly mechanistic life. Plato describes democracy as the regime in which freedom is corrupted to mean freedom to pursue whichever ends one wants - an appropriate description of the absence of adequate anti-competitive laws in the tech sphere. Its susceptibility to political corruption comes from the weakening resilience towards the threat of materialism and the "lust for liberty".

Modern economics is starting to recognise the importance of tempered economic growth in a near-stationary state where the focal point is horizontal, rather than vertical growth. For instance, the way these platforms monetise their operations is not compatible with the principles levied on corporate activities involving tangible assets such as the cross-border allocation of tax rights. As a result, while fierce diplomatic contestation plays catch-up, Big Tech firms largely live tax-free lives (Himes, Nieh and Schnell 2021).

4.4 How can we evolve a regime of platform governance through Plato's conception of "Guardians of Law" within his framework of division of labour?

His theory of the division of labour propounds that justice, rather than efficiency, should be promoted in an economy. He acknowledged the increase in productive efficiency that comes with specialisation but did not hail it as the primary reason in an ideal state. Instead, he postulated harmony as an important concept for the state which involves a proportionate share of inputs and outputs. Socrates responded, "What matters fundamentally is not the happiness of the guards or any other group within the citizen body, but that of the whole city (Republic 421C)." The emphasis was thus not on the positive benefits of communism, rather the perils that arise from a single-minded pursuit of wealth when supplied with the necessary means to do so.

In order to bring about the principle of commutative or distributive justice, he favoured inequality between members of different socio-economic classes, since "indiscriminate equality for all amounts to inequality". In the context of Tech laws, platform liability has emerged as the guardian of cyberspace. Earlier, platforms had no responsibility for user-generated content leading to inflammatory information being circulated and profit being derived from it. With greater consensus on intermediary liability, countries such as India have come up with legal rules such as the *Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021* that levy fines and sanctions in the case of inaction. This has brought about an

editorial model, where companies are forced to cross-check content being posted on their platforms, algorithmically and manually (Joshi 2019). However, liability is not just in the case of content, it pertains to non-price parameters such as privacy. Recent bills in the US Senate such as the *American Innovation and Choice Online Act* and the *Platform Competition and Opportunity Act* will prohibit discriminatory conduct by tech giants and would bar the use of acquisitions to crush competitive threats or to expand their market power (Monti 2021). While these Acts seem to have pure economic significance, the scale at which these companies operate makes the issue deeply political and intrinsically tied to state sovereignty and a temperate political economy.

4.5 Can we arrive at a temperate economy through Plato's prescriptions of the "second best state"?

Due to the infeasibility of establishing the best state, Plato's prescriptions for welfare economics are oriented towards the creation of a "second-best state". Plato intended to have a wealth distribution system in which the largest wealth holding could exceed the smallest by a factor of no more than four. Property was to exist in the form of lots, to be distributed to the citizens by the state. These lots were not designed to be equal, rather in accordance with the principle of proportionate inequality. Plato also pointed out the importance of registering all property and estate, for the close monitoring to prevent excessive accumulation. In his second-best state, the households should be exactly 5040, no more and no less. The rationale behind this was to try and maintain the initial distribution of wealth. This attempt by Plato to avoid growth in terms of population as well as wealth is referred to by some economists as *"Plato's steady-state"* (Welles, 1948).

Geographical limits like these are inconceivable in a hyper-globalised digital economy and centralised state control over property is fundamentally incompatible with the liberal democratic world order. However, despite these crucial differences in the socio-economic context, Plato's perspectives on wealth distribution provide a philosophical startpoint against "winner-take-all" markets that create conditions for the persistent success of a few companies. For instance, scholars have critiqued the aggressive business tactics Amazon employs, such as their campaign *"The Gazelle Project,"* to refer to a stunt where Amazon would co-opt small publishers "the way a cheetah would approach a sickly gazelle." It drew widespread flak because it exposed the consequences and costs linked to Amazon's dominance (Cohen and Mello 2019).

Plato's temperate economy was premised on the notion of sufficiency, or *ikanotes*. Plato also points out how the acquisition of wealth ought to be limited by an end (causa finalis), in such a way that it does not become an end in itself. This emphasis on a causa finalis is echoed in the Chinese

regulatory crackdown on tech companies, with their laws differentiating between *"nice to have"* and *"need to have"* companies. In addition, internet based companies inflict hidden costs on the society, in the words of XI Jinping, become "opium of the mind", violating privacy, propagating misinformation and leading to behavioural addictions. Thus, the growing footprint of social media and e-commerce giants such as Alibaba, Tencent and Didi has been restricted with strengthening of labour-intensive manufacturing countries that enhance self-reliance in an era of post-Covid economic recovery (Smithurst 2021).

5.0 Conclusion

The debate about regulating Big Tech is a debate closely tied to power. In this clash of the titans, corporate authoritarianism cannot be simply replaced by government authoritarianism, any regulatory framework must keep citizen-users' rights at the centre. Incorporation of Nicomachean ethics such as the virtue of moderation is integral to bring about fairer competition and balance of power between tech companies on one hand and between nation-states and non-state actors. The concentration of wealth is linked to stifling of democracy, especially in view of the nature of services Big Tech offers that rely on processing of behavioural data. As they make inroads into shaping political attitudes and outcomes, the behemoths that shape them need a robust set of safeguards to institutionalise transparency, accountability and fairness alongside operational efficiency. Plato's notion of a temperate economy and bringing about a steady, second-best state can provide an ethico-economic foundation to frame anti-monopoly laws and policies for just business practices. A model of polycentric governance with multiple stakeholders at all levels can exercise the necessary influence, both from the margins and within the ecosystem in order to ensure effective governance of cyberspace.

Given the diversification of Big Tech operations, understanding the nature of Big Tech oligopoly is complex as it is linked to the frame of reference - how one delimits the relevant market. For example, is Google competing as an advertising channel, a search engine or a cloud computing service provider? Relevant laws are being drafted such as the Ending Platform Monopolies Act in the US that inhibits platforms with market capitalizations of more than $600 billion to own another line of business that creates a conflict of interest. The future scope for research includes incorporation of location-specific variables in arriving at robust regulatory frameworks for India, given the recent widening of social cleavages being correlated with online echo chambers. Further, discussions on the ethics built within machine learning and artificial intelligence harnessed by tech companies are taking centre stage. Integrating safeguards against algorithmic bias within the larger ethics, equity and

ease of access framework can go a long way in establishing digital egalitarianism.

References

"Big Tech: The Battle Reaches India"." 2021. (retrieved June 18, 2022).

Budzinski, Oliver, and Juliane Mendelsohn. 2021. "Regulating Big Tech: From Competition Policy To Sector Regulation?". SSRN Electronic Journal. doi:10.2139/ssrn.3938167

Cohen, I. Glenn, and Michelle M. Mello. 2019. "Big Data, Big Tech, And Protecting Patient Privacy". JAMA 322 (12): 1141. doi:10.1001/jama.2019.11365

Collins, Randall, Robert Loring Allen, Joseph A. Schumpeter, and Richard Swedberg. 1992. "Rediscovering Schumpeter". Contemporary Sociology 21 (2): 171. doi:10.2307/2075410

Ferriss, Suzanne. 2018. "Refashioning The Modern American Dream: <I>The Great Gatsby</I>,<I> The Wolf Of Wall Street</I>, And <I>American Hustle</I>". The Journal Of American Culture 41 (2): 153–175. doi:10.1111/jacc.12869

First, Harry, and Eleanor M. Fox. 2020. "Big Tech And Antitrust – Calling Big Tech To Account Under U.S. Law". *SSRN Electronic Journal*. doi:10.2139/ssrn.3672750.

Ford, Andrew, Plato, and Trevor J. Saunders. 1990. "Plato: Early Socratic Dialogues". The Classical World 83 (6): 534. doi:10.2307/4350694

Foroohar, Rana. n.d. Don't Be Evil.

Ghosh, Dipayan, and Ramesh Srinivasan. 2021. "The Future Of Platform Power: Reining In Big Tech". Journal Of Democracy 32 (3): 163–167. doi:10.1353/jod.2021.0042

Gill, Christopher. 2004. "Plato And The Scope Of Ethical Knowledge". *Plato Journal*, no. 4. doi:10.14195/2183-4105_4_5

Groenewegen, Peter. 2011. "The Classical Foundations Of Population Thought From Plato To Quesnay". *Economic Record* 87 (279): 648–650. doi:10.1111/j.1475-4932.2011.00770.x

Himes, Jay, Jason Nieh, and Ron Schnell. 2021. "Antitrust Enforcement And Big Tech: After The Remedy Is Ordered". *Stanford Journal Of Computational Antitrust*, no. 1: 64–83. doi:10.51868/5

Hurley, John, Marie Hutchinson, Joanne Bradbury, and Graeme Browne. 2016. "Nexus Between Preventive Policy Inadequacies, Workplace Bullying, And Mental Health: Qualitative Findings From The Experiences Of Australian Public Sector Employees". *International Journal Of Mental Health Nursing* 25 (1): 12–18. doi:10.1111/inm.12190

Joshi, Divij. 2019. "Towards A Safer Social Media – Submissions To The Ministry Of Information And Technology, Government Of India, On The Draft Information Technology Intermediary Guidelines (Amendment) Rules, 2018". SSRN Electronic Journal. doi:10.2139/ssrn.3326368

Keena, Justin. 2021. "Plato On Divinization And The Divinity Of The Rational Part Of The Soul". PLATO JOURNAL 21: 87-95. doi:10.14195/2183-4105_21_6

Kotsonis, Alkis. 2019. "The Platonic Conception Of Intellectual Virtues: Its Significance For Virtue Epistemology". Synthese 198 (3): 2045-2060. doi:10.1007/s11229-019-02189-7

Marsh, Charles. 2001. "Public Relations Ethics: Contrasting Models From The Rhetorics Of Plato, Aristotle, And Isocrates". Journal Of Mass Media Ethics 16 (2): 78-98. doi:10.1207/s15327728jmme1602&3_2

Monti, G. 2021. "The Digital Markets Act:". European Competition And Regulatory Law Review 5 (2): 90-101. doi:10.21552/core/2021/2/4

More, Paul E. 1916. "The Parmenides Of Plato". The Philosophical Review 25 (2): 121. doi:10.2307/2178705.

Moural, Josef. 2016. "Popper And Stránský On Interpreting Plato". *Aither* 8 (15): 30-45. doi:10.5507/aither.2016.002

NAFISSI, MOHAMMAD. 2015. "BETWEEN UTOPIA AND DYSTOPIA: MOSES FINLEY AND THE ATHENIAN DEMOCRACY VERSUS MOSES FINLEY AND THE ANCIENT ECONOMY". *Bulletin Of The Institute Of Classical Studies* 58 (2): 107-144. doi:10.1111/j.2041-5370.2015.12014.x

Norris, Trevor. 2021. "Editorial: Big Tech, Big Winners, And Big Debt". *Brock Education Journal* 30 (1): 1. doi:10.26522/brocked.v30i1.897

Sagers, Chris. 2019. "Antitrust And Tech Monopoly: A General Introduction To Competition Problems In Big Data Platforms: Testimony Before The Committee On The Judiciary Of The Ohio Senate". *SSRN Electronic Journal*. doi:10.2139/ssrn.3471823

Santesteban, Cristian, and Shayne Longpre. 2020. "How Big Data Confers Market Power To Big Tech: Leveraging The Perspective Of Data Science". *SSRN Electronic Journal*. doi:10.2139/ssrn.3556232

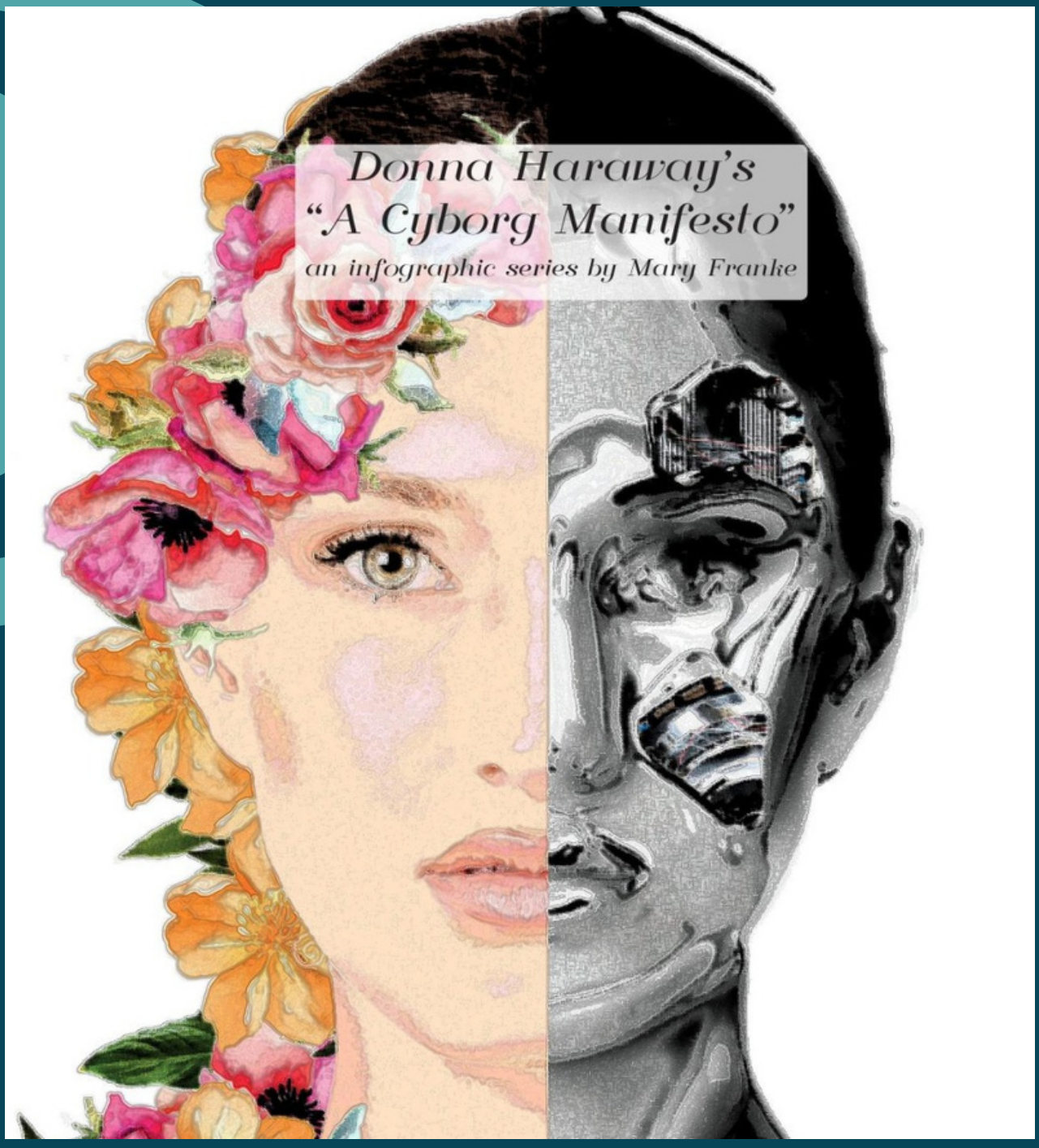
Smithurst, Thomas. 2021. "Tech Giants Reined In: China Tightens Antimonopoly Regulation Of Digital Platforms". *Journal Of European Competition Law &Amp; Practice* 12 (8): 641-647. doi:10.1093/jeclap/lpab051

Stodder, James. 1996. "Karl Polanyi On Ethics And Economics". Tradition And Discovery: The Polanyi Society Periodical 23 (3): 42-43. doi:10.5840/traddisc1996/199723314.

Tavani, Herman T. 2007. "Regulating Cyberspace: Concepts And Controversies". Library Hi Tech 25 (1): 37-46. doi:10.1108/07378830710735849

Zuboff, Shoshana. 2019. The Age Of Surveillance Capitalism. [Place of publication not identified]: PublicAffairs

Zwitter, Andrej, and Jilles Hazenberg. 2020. "Governance, Blockchain, Cyberspace: How Technology Implies Normative Power And Regulation". SSRN Electronic Journal. doi:10.2139/ssrn.3660795



Feminist interventions such as Donna Haraway's A Cyborg Manifesto have long considered the philosophical and political implications of our multitudinous bodily entanglements with technology: "We are all chimeras," Haraway famously writes, "theorized and fabricated hybrids of machine and organism; in short, we are cyborgs" (7). Emphasising boundary porosity as a site of socialist-feminist potential, Haraway's cyborg is ultimately a celebration of multiplicity, insisting that such distinctions as human/machine, human/animal, and natural/artificial are ultimately untenable in a world where everyone can be partly someone else

Digital Exclusion of Citizens

The Selectivity of E-Development in Indian Democracy

Avantika Rout and Varshita Sigar

Department of Political Science, Lady Shri Ram College

Abstract

When the internet first appeared in India throughout the 1990s LPG reforms, notably in 1986, it was exclusively used for academic research and schooling. Fast forward to 2022, the data usage in India is estimated to reach a high of 10,96,58,793 million MB. With internet penetration set to cross yesteryears' thresholds in the coming years, the central government will very certainly step up its "digital revolution" and "e-democracy" efforts. In 2014, the Digital India campaign sparked changes in technical infrastructure. While this may be considered a specimen of e-governance, the concept of "digital universal literacy," which targets the "electronic" component of e-democracy, has yet to gain traction in the country. The 2015 "Smart Cities Mission" gave MyGov.in a boost. There is a considerable digital divide in educational opportunity among children from impoverished areas of the country and those from more wealthy neighbourhoods; between courts, practitioners, and clients in metropolitan cities and those outside metropolises, and this prevalence continues with as much intensity as the pandemic itself. Elections are approaching again this year, and even there, the ostensibly e-friendly mandated 'Aadhaar connectivity with electoral rolls' is being viewed as a means of systematically removing voters. This ultimately goes against the virtue of India's electoral democracy.

Keywords: *Internet penetration, E-Democracy, Aadhar linkages, Digital Divide*

1.0 Is the Universality of Internet Rights replicated enough in India?

The COVID-19 shutdown made us all more dependent on the internet than we had ever been before; work from home became the norm, and even schoolchildren's classes were relocated to an online platform. And as a result, the number of internet users in India has exploded. 61 per cent of households in India used the internet in 2021, compared to just 21 per cent in 2017. Over 130 million users came online in 2020 and 2021 from which nearly 80 million came online in 2020 and 43 per cent of them (around 34 million) came online due to the COVID-19 crisis. Internet penetration in India is very uneven compared to the U.S.A. or other nations, when we think of the problem of why this internet penetration is so uneven despite everyone having mobile phones, etc., the main cause of this is the country's digital divide — the gap between those with the means and knowledge to benefit from the internet, and those without — worsening already stark levels of inequality and weighing on economic growth. While the divide isn't unique to India, it's especially acute in a nation where more than half the population of 1.3 billion people is under 25

years old. Education is just one area that has highlighted the digital divide between India's rural and urban areas during the lockdown. The trend is evident everywhere — telemedicine, banking, e-commerce, and e-governance, all of which became accessible only via the internet during the lockdown. The divide exists despite the rise in the number of wireless subscribers in India over the past few years. Although the divide might be overcome for the users, another problem has risen of "internet shutdown". The country in the past one to two years alone has seen around 400 national cases of internet shutdowns. The following judicial pronouncements chart out the roots of the digital divide and the issues stemming from them, in our country-

1.1 Fahima Shrin vs. State of Kerala (2019)

The case very well states the problem of the digital divide and how it acts as a barrier for those who want to use the service available to them. The Government has proclaimed steps for making the internet accessible to all citizens recognizing the right to the internet as a human right. Referring to the Information Technology Policy5 of the Government for the year 2017, it is stated that the State Government is adopting a mobile-first approach for e-governance services in line with Digital Kerala Vision by leveraging high mobile penetration and coverage in the State. It is therefore argued that the restrictions have invaded her fundamental right to privacy guaranteed under Article 216 of the Constitution of India. Being an adult she claims that nobody has any authority to interfere with her freedom to use mobile phones. It is argued that the forceful seizure of mobile devices has invaded the right to privacy of hostel inmates. It is also her contention that the modification of rules based on parental concern is also an infringement on her autonomy as well as that of other inmates of the hostel.

1.2 Anuradha Bhasin Vs. UOI (2020)

This harsh on-ground reality of the state of Jammu and Kashmir was pretty much prevalent after the abolition of article 370. This case is an apt example of how the legality of internet shutdowns and illegal internet restrictions, create a problem for the citizens as the internet is now an important part of the press and important in every sector. The petitioner's argument was about the failure of the government to give a valid reason for passing such an order as required by Suspension rules. She additionally pointed out the reason for such orders to be passed was wholly based on mere apprehension of risk interns of law and order which was not the case. The contention of the petitioner was to point out that the government needs to find a way to balance the measures necessary to maintain national security on one hand and the rights of the citizens. However, the state is establishing it as the ground for passing the order to restrict the rights of the citizens. He claimed that restrictions were to be imposed temporarily, however, are imposed for more than a hundred days.

It is necessary to publish order is a component of natural justice and it even is made accessible to the general public.

The state cannot claim any kind of privilege before the court for not producing such judgements. Furthermore, the proportionality test was upheld by the court and must be seen whether restrictions imposed on the fundamental rights of citizens are reasonable or not. The Court declared that the freedom of speech and expression and the freedom to practice any profession or carry on any trade, business or occupation over the medium of the Internet enjoys constitutional protection under Article 19(1)(a) and Article 19(1)(g) respectively.

While such freedom is not absolute, the restrictions imposed on it should align with the mandate under Article 19(2) and Article 19(6) of the Constitution, inclusive of the test of proportionality.

1.3 The Case of Foundation of Media Professionals vs. Union of India & ANR (2020), i.e., the 4G Case

Another example of the ground reality after the abolition of article 370, people and government illegally making benefits from the sensitive condition of the citizens in the union territory. The internet shutdown in august 2019 created problems for people as Restrictions have virtually abrogated fundamental rights and paralyzed the lives of seven million people in the region. The shutdown of internet services has severe consequences on business, trade and heavily affects the common people in the region. The Court declared that the freedom of speech and expression and the freedom to practice any profession or carry on any trade, business or occupation over the medium of the Internet enjoys constitutional protection under Article 19(1)(a) and Article 19(1)(g) respectively. While such freedom is not absolute, the restrictions imposed on it should align with the mandate under Article 19(2) and Article 19(6) of the Constitution, inclusive of the test of proportionality. This uneven distribution of the internet and digital divide in the country has created problems which are hard to overcome, internet access is also a right now and duly comes under right to life as we are free to use it without any restrictions but the above-stated problems not only challenges a citizen's right to life but altogether Right to Education, Profession, and Health is also challenged as now due to covid-19, no internet would mean no education, no work from home, no online registrations for vaccination or accessibility to the Arogya Setu app. The outcomes of the above-stated cases might be the solution on the paper but they haven't fetched any strong solutions or changes in the status quo. How? Let us explore in the next section.

2.0 Mandating E-Documents in the face of Digital Divide

2.1 The 'Aadhar' Connection: A Stride Towards Lowering of Electoral Democracy & other E-Governance

Websites

Electronic Voting Machines (EVMs), as we know them, are standalone gadgets not connected to the internet. In many remote parts of the country, neither EVMs nor Internet have reached yet. On 20th December 2021, the Lok Sabha passed the Election Laws (Amendment) Bill 2021 asking to link voter ID cards with Aadhar cards. Now, monitoring the state of non-uniform EVM penetration & lack of internet assistance in this field, a question worth asking is that "how will biometric verification for enrolled voters work?" Hold that thought and allow us to propose a hypothetical situation, one in which the internet drives this linking process. Even with this being the case, what guarantees the promise of voluntariness in the Aadhar law? Definitely, it is not the grossly inadequate safeguards on privacy that we have seen in the past, at least.

Another cause of worry is that voter ID linked to an Aadhar would be linked to a mobile phone, which in turn would be linked to social media, with the possibility of it being linked to bank accounts, e-healthcare services, bank applications and akin services that breathe and operate by the channel of your phones, i.e., only if you happen to have one. It is a widely known and commonly held belief that information if kept open for the access of citizens will bring more transparency and accountability to the administration. However, if the personal data of citizens is misused to pave way for voter profiling and bogus voting, the emerging, selectively exclusive nature of Indian democracy comes to the fore.

Union Law Minister Kiren Rijiju, while rejecting the Opposition MPs' arguments that the Bill would violate the fundamental rights of citizens, stated that the amendment was only meant to stop bogus and fraudulent voting. However, linking voter ID with Aadhaar would not only increase 'bogus and fraudulent voting', but millions could also be disenfranchised in due course.

Taking a detour, alternative applications that have been put in place by the Government to reach the impoverished areas, in villages, E-Mitra launched in 2005 being one specimen have come with its share of loopholes. Recently infamous Aarogya Setu, COWIN app layout a grim reality. The repeated "log-ins" that do not result in timely delivery of "One-Time-Passwords," and the crashing of websites when booking slots for vaccination has to undertake are a common state of affairs to anyone you ask in today's date. Imagine a daily-wage earner striving to access a phone first, let alone a data-pack facility, going ahead to recharge his phone with internet only to find that none of the government services put in place work. But again, this is a situation of hypothetical consideration. Other applications include eSanchar, e-PDS, eBazaar, iFact, which look positive on paper but not on the ground. There's a possibility of digitization being used to

enhance the reach and the actual effect of such government services. However, the COVID situation covered below seems to talk us out of this possibility.

2.2 Covid-19: The Big Exposé

It is by no means a surprise that the COVID-19 pandemic is terrible for low-income families who depend on daily wages for survival. The lockdowns and restrictions have forced these people to starve and often face death. Among the countless sufferers, the worst hit is underprivileged kids who don't have even the basics like food, shelter, healthcare, protection, and education. Before we dive into the digital disparity in terms of the internet, it is important to keep in mind the underlooked cases of kids who had gone missing. Many of the underprivileged kids of India didn't have any means of communication, many of them went missing, and the problem was never reported to the police. Means of communication are still a rich conversation to have. The starkest effect that the pandemic had on the lives of children was the advent of online classes. While most of us had Wi-Fi connections, laptops, mobile phones, tablets, and headsets at our disposal, kids who were already facing real-time issues in accessing basic resources like school textbooks, had to undergo the hit that mandated them to be all tech-savvy- and privileged too.

Since the March of 2020, more than 550 million students in India have had their learning disrupted by school closures as a result of the pandemic. School closures have thrown the complexities of India's digital divide into sharp relief Many families don't own a smartphone or have a single smartphone that a parent needs to take to work with them. And this is not just by the word of mouth, but many non-profit organisations have reported it for the last two years. The renowned Azim Premji Foundation in 2020 found that almost 60 per cent of school children in India cannot access online learning opportunities.

The proportion of students who cannot access online learning is particularly high among children from low-income and low-caste families. This is a clear reflection of how e-selectivity does not only exist at the level of fiscal federalism and bureaucratic structures in India but even has deeply inherent roots stemming from our social institutions like family and caste-hierarchy. Some say the caste system would have disappeared by now if the fires were not regularly fanned by politicians. At elections, many caste groups still vote as a block and are wooed by politicians looking for electoral gains.

As a result, what was originally meant to be a temporary affirmative action plan to improve a lot of the unprivileged groups has now become a vote-grabbing exercise for many politicians. When state and union elections linger around, their fruitless promises of providing free technological benefits are either restricted to a certain sub-section of the population

or delayed fulfilment of these promises is seen, more often than not, giving their opposition parties all the more reasons to label their claims as "Jumla."

Have mobile phones reached the children who were promised with the hopes of internet connectivity by Kanwar Pal in 2020? His decision was, back then detrimental to whether schools remained shut down until the July of that year. But now, the July of 2022 is barely five months away from us and all we have heard from Haryana so far, in terms of their student base, are regular cases of student exodus and intermittent opening and closing of schools and universities- very conveniently whooshing away a promise once made just out of the blue.

2.3 E-Justice and its Loopholes

In popular perception, Indian courts are not associated first with the delivery of justice, but with long delays and difficulties for ordinary litigants. How are they coping with this problem amidst the Covid-19 crisis? Well, The e-Committee of the Supreme Court of India recently released its draft vision document for Phase III of the e-Courts project. Phases I and II dealt with the digitisation of the judiciary, i.e., e-filing, tracking cases online, uploading judgments online, etc. Even though the job is not complete, particularly at the lower levels of the judiciary, the project can so far be termed a success. This has been particularly so during the COVID-19 pandemic when physical courts were forced to shut down. Despite some hiccups, the Supreme Court and High Courts have been able to function online. This was made possible by the e-Courts project, monitored by the e-Committee.

However, the document goes on to propose an "ecosystem approach" to justice delivery. It suggests a "seamless exchange of information" between various branches of the State, such as between the judiciary, the police and the prison systems through the Interoperable Criminal Justice System (ICJS). It has been pointed out by organisations such as the Criminal Justice and Police Accountability Project that the ICJS will likely exacerbate existing class and caste inequalities that characterise the police and prison system. This is because the exercise of data creation happens at local police stations, which have historically contributed to the criminalisation of entire communities through colonial-era laws such as the Criminal Tribes Act of 1871, by labelling such communities as "habitual offenders".

Once any government department moves online, their pen-and-paper registers will become excel sheets, shareable with a single click. Localised data will become centralised. Holdovers from the analogue age ought not to have an issue with this process, since it can lead to great advancements in problem-solving. However, it is the next stage that is a cause for concern even for the most vocal proponents of the digital age, which is integration with other agencies.

2.4 Gender, Education, and Digital-Divide

UNESCO accepts the gender divide as "one of the most significant inequalities to be amplified by the digital revolution" (Primo, 2003). Chen and Wellman (2004) found that gender is one of the important factors affecting access to and use of the Internet; males are more likely than females both to access and use the Internet. Bimber (2000) found that there is a significant gap between genders in terms of accessing and using the Internet and it exists because of differences between men and women in socioeconomic status, which affects Internet access and use. Carveth and Kretchmer (2002) found that gender is one of the significant predictors of the digital divide in Western Europe. Broos and Roe (2006) found also gender is one of the major factors structuring the digital divide. The rate of Internet use of males is higher than that of females. While the rates of Internet use among males are 71%, it is only 29% among females.

This tendency has been strengthened by the pandemic. Low-income households and rural families, with their members: phone ratio being 4:1 at most times, struggle to arrange internet connectivity at affordable rates, and even when they do, it is at the cost of compromising their girl children's online education since male preference is still a thing of the present in our country.

3.0 Conclusion

With the effects of the pandemic becoming increasingly severe by the day, there has been an almost total shift to online modes of operation. However, this has created a huge digital divide in the country, aggravating the already existing inequalities. To realise the dream of a digitally inclusive India, the internet has to be provided as a public good and at subsidised rates for low-income households. (Devara, 2020) As a vaccine quest by pharmaceutical companies has been on an anticipated path with progress but no end accelerated approval to yield political dividends is promised with unfortunate vaccine nationalism has become a major concern (Sinha 2020). Specifically, education is shifting online all over the world. But in developing countries like India, the internet is still not an essential commodity for millions.

Amidst all these dramatic ongoing phenomena, COVID-19, as we have seen in the research, has emerged as a critical driver of digital transformation in India and the world. The necessity of online schooling during the pandemic and lockdown has thrown into relief the sharp difference between the economic classes. Students in rural areas or other underprivileged students do not have smartphones or internet connections to keep up with online learning like their city-dwelling peers.

Concurrently, the societal divide has deepened alarmingly, as physical distance, the new lifestyle of work from home, and digitalisation have become the new

normal. In a nutshell, data can be useful when it provides anonymous, aggregated, and statistical information about issues without identifying the individuals. Amartya Sen, in his infamous work, 'Equality of What' might have postulated that freedom is what equality finds its origin in. But with necessities of life being unmet in trying times like these, what demarcates freedom and equality, also brings with it deprivation and injustice.

References

Broos, Agnetha, and Keith Roe. "The Digital Divide in the Playstation Generation: Self-Efficacy, Locus of Control and ICT Adoption among Adolescents." Poetics 34, no. 4-5 (2006): 306–17. https://doi.org/10.1016/j.poetic.2006.05.002

Carveth, Rod, and Susan B. Kretchmer. "Policy Options to Combat the Digital Divide in Western Europe." Informing Science: The International Journal of an Emerging Transdiscipline 5 (2002): 115–23. https://doi.org/10.28945/542

Chakraborty, Jayajit, and M. Martin Bosman. "Measuring the Digital Divide in the United States: Race, Income, and Personal Computer Ownership." The Professional Geographer 57, no. 3 (2005): 395–410. https://doi.org/10.1111/j.00330124.2005.00486.x

Demoussis, Michael, and Nicholas Giannakopoulos. "Facets of the Digital Divide in Europe: Determination and Extent of Internet Use." Economics of Innovation and New Technology 15, no. 3 (2006): 235–46. https://doi.org/10.1080/10438590500216016

Goldfarb, Avi, and Jeffrey Prince. "Internet Adoption and Usage Patterns Are Different: Implications for the Digital Divide." SSRN Electronic Journal, 2007. https://doi.org/10.2139/ssrn.882828

"Double Fuse" (2003), by the Kenyan artist Wangechi Mutu. Mutu is known to play with dichotomies of biological/artificial, human/machine, black/white, feminine/masculine, and Western/non-Western as she teases out the boundaries between balance and disproportion, beauty and deformation. In an interview with Barbara Kruger where Mutu discusses the intersection of race, class and gender in society, she reflects: "This structure is like any other matrix: It's man-made. Once I realized that, I also realized you can play with it; you can mentally play with the freedoms you do have to transfigure yourself–you can embody something different from what society claims and thinks you are." Her hybrid and cybernetic constructions of women parody the stereotyped native woman and force viewers to challenge assumptions about race, gender, geography, history, and beauty.

Plato's Noble Lie and Big Data: Sophistry or Verity

Ashly Jiju
Department of Political Science, Lady Shri Ram College

Abstract

Plato's noble lie, as described in The Republic, is a myth that is knowingly spread by an elite as a tool to maintain social harmony or advance an agenda. Noble lies are told by few and accepted by all, and while this appears to be an impossibility if democratic ideals are to be realised, a dangerous and ever-expanding combination of these exist in the world today through big data. Using tools like data mining governments and large corporations invade data ownership, privacy and democratic values as a whole. But even in writing when the exercise of big data is muddled with negative consequences, society is sold a lie of the enrichment it brings into our lives. Thus the question remains: Is big data a sophistry or verity?

1.0 Introduction

The world today is dominated by the media. People are compelled to give up their information to integrate with the rest of society using the internet. Being digitised is not a choice but rather a compulsion of modern humans. The predictions of the past that the hands of the media will control human lives have come true. It foresees the complete surrender of our personal information. We are trapped in an understanding that big data collection is for our good. The lie that big data is collected for our good can be compared to Plato's noble lie, which is the paper's theme.

The paper can be broadly divided into two sections. The first half of the paper introduces the ideas of Plato's noble lie and the idea of big data. The second half of the paper deals with how big data is a noble lie and its various implications. The paper seeks to establish a relationship between Plato's Kallipolis's noble lie and big data's noble lie. The paper aims to identify whether big data is sophistry or verity.

2.0 Plato's Noble Lie

Plato's theories in his book *Republic* are

complete with complex and intriguing thoughts that have shaped the political philosophy of the world. One among these is the idea of the noble lie. It is presented in book 3 of the *Republic* through the story of the myth of metals. It is among the most controversial among the discussions. The story combines the Phoenician tale where Cadmus sows the earth with dragons and Hesiod's distinction of classes according to metallic composition. Plato reuses this Cadmeian myth of autochthony and Hesiodic myth of ages to derive a tale unique to Athens. Myths exist to teach morals while simultaneously sharing human experience. Plato uses this means to share his thoughts with a wider audience. It can be argued that Plato places a significant emphasis on knowledge throughout his work. In this regard, he also stresses that to rule knowledge of the theory of knowledge is essential. For this theory to be distributed, there are several ways. While some can be understood through words, others need images given through pseudo-truths, such as the divided line and the allegory of the cave. Therefore, Plato's noble lie serves the purpose of teaching the masses something that is not otherwise easily comprehended. The teaching is to believe that all of the city's people are brothers as they were born out of the same earth, and each has a place in the society they must accept thus, promoting social harmony.

3.0 Justification of lying

Lying is an action that, despite being negative, is widely used and considered to be a necessity to survive. Plato classifies lying into two in Book 2 of the *Republic*: lies in speech, which is not a pure lie and can occasionally be used by the virtuous and non-ignorant and lies in the soul, which is the real lie caused primarily due to ignorance. However, lies in speech may be contagious. Here, the myth and the ruler's sole authority on being able to lie are brought forward. A larger question is whether blatant lying, especially from a figure of authority, is permissible if there are no direct, immediate costs. In the noble lie, the idea given is jarring as it socially immobilises a person to a significant extent and gives a section of society a higher value than the rest. It also propagates the idea that people are inherently the way they are, lending more power to the higher classes. While this can achieve temporary social harmony, if implemented in the long run may lead to the development of an atrocious caste system similar to that practised in India.

Various philosophers have differing views on this. Some take an extreme opinion on the topic, such as Kant, for whom lying is always morally impermissible. For Popper, Plato is racist and totalitarian in his ideas and describes it as a fraud used to reconcile people to their lot. He sees it as a lie that is not genuinely noble in its intent and compares it with Quasi-Fascism or Machiavellian thoughts.

While describing ancient theory with modern theory is a stretch, the similarities

do exist. R.H.S Crossman and Warner Fite see Plato as not noble and compare him to Hitler or Stalin as lying is propaganda.

There are positive interpretations as well. D.E Hahm shows the underlying thought behind the lie as the ruler needs to have more than their interest. They have to tell such lies for the larger goal of obedience, stability, care and fraternity. For Strauss, one of the biggest supporters of Plato, the noble lie is not much of a concern. In *The City and Man*, he claims that a good city cannot exist without a fundamental falsehood. It is actualised by blurring distinctions between nature and conventions through brotherhood and the conviction of the fundamental inequality amongst the brothers. According to Seth Bernadette, it guarantees that the rulers will not gobble up the baser metals.

It is necessary to note the contrast between what a modern political life consists of in comparison to ancient Greece. Today, the dominant liberal ideas argue for a society characterised by debate, discussion, conflict and reconciliation. This Rawlsian society is corrupt, according to Plato. The actual concern, as Julia Anna gives, is the bothersome nature of the manipulation in the noble lie. In Plato's Kallipolis, the ruler is the one who has the authority to tell such a lie, as he is a philosopher-king with expertise. However, knowledge does not give one the authority to lie as we humans intrinsically value the truth. It is such that even the idea of a divine being lying is repulsive. If it is not permissible for God, then the king should not be given leeway. Sissela Bok argues for a similar idea. She breaks down the Greek term for a noble lie, *gennaion pseudos,* and argues that the term 'gennaion' can be translated as well-bred. It could signify people reared into a particular mentality, not from a humane but an objectifying sense. She claims that the perspective of the deceived must be taken into account; hence, altruism, no matter the consequences, cannot be taken for granted.

The criticisms are many, with the most being its fundamental nature of manipulation. But, another more practical concern is the impossibility of finding a king virtuous enough to rule. It makes the idea even more dangerous as it gives room to authoritarian or totalitarian leaders who may not be wise but hold absolute control primarily through deception.

These criticisms have not escaped Plato and are visible in his other work, the *Laws*. In *Laws*, a seemingly more mature Plato envisions a different city, Magnesia. Plato abandons his assumption of the possibility of incorruptible rulers in this city. These rulers cannot be given absolute power, so a system of accountability through checks and balances and other democratic devices must exist.

Despite the change in thought, Magnesia is a more optimistic design, with virtue being a quality that is not just reserved for the few. Ryan Balot describes Magnesia as a community of the virtuous. But, in this

description, there is no mention of a noble lie. It can be identified as accepting the dangerous congruence between noble lies and a democratic setup, which can lead to the latter's destruction. In a democracy with transparency and accountability, a lie is not sustainable even by the rulers. Noble lie given by few and accepted by all is possible only in a scenario where few hold ultimate power, and there is the underlying belief of their superiority as given in the myth of metals. Though this seems to be an impossibility if the democratic ideals need to be fulfilled, a dangerous and ever-expanding combination of this exists in the world today through big data.

4.0 Big Data

Big data refers to large sets of data collected from multiple sources from which new observations, measurements, predictions, and actions are taken. There are various ways to define big data. While some understand big data as the capacity to search, aggregate, and cross-reference large datasets (Crawford, 2012), others focus on the ability to interrogate and interrelate diverse types of data, to be able to consult them as a single body of evidence (O'Malley and Soyer, 2012).

Big data has two significant features namely volume and velocity. Volume refers to the amount of data available, while velocity refers to the speed with which data is generated. Other essential features include variety, veracity, validity, volatility and value.

First, variety indicates a diverse range of data. Second, veracity indicates the quality and reliability of the data. Third, validity refers to the selection of appropriate data that is context-specific. Fourth, volatility refers to the data's availability, accessibility and re-interpretability despite technological changes. Lastly, value refers to the significance attributed by big data-dependent on use and given circumstances. Big data is not just a lot of data. Its epistemic power lies in its capacity to bridge between different research communities, methodological approaches and theoretical frameworks that are difficult to link due to conceptual fragmentation, social barriers and technical difficulties (Leonelli, 2019).

Governments have traditionally used it to collect information about the people living in the country for the prevention of crime and terrorism, providing services to the people and policy measures. With growing digitisation, the use of big data in the private sector is increasing, with the information collected being traded and used for marketing. It is primarily done through data mining, in which various techniques are used to extract intelligence from vast sources of digital information (S Rubinstein).

For the governments, data mining is claimed to be a valuable tool to collect and go through large sets of data from which a possible terrorist activity or signature can

be detected. It is needed as it is challenging to identify such activity as their actions do not drastically differ from that of ordinary citizens. Another aspect is policy formulation and, most recently, health. Several countries have rolled out national identification and healthcare systems that compile all the citizens' information. Governments do object-based and pattern-based searches. The former is a targeted search, while the latter is based on a few factors. In many respects, the latter violates several laws given to the people. Richard Posner opines that data mining is just a computer sitting through data and does not cause any harm.

The information provided in the private and public sectors has helped bring significant changes. It is evident in the health sector that the new data has enabled researchers to be exposed to a data set that was unavailable earlier, making studies on various current and future health issues possible. It is also used by authorities and NGOs to identify people who most need resources or services. This data is then used to bring material changes to the people, such as building a hospital or a cylinder delivery station in the remote villages of a country. Another example is the integration of traffic, human behaviour, and environmental and geographical conditions data to produce safety measures for driverless vehicles, where data can be used to generate an appropriate response in an emergency.

While official data required by the government reports is collected through local authorities and health data is collected directly or through hospitals, most data today is collected through digital platforms. Several methods can be used, but the most common is cookies. Formally known as HTTP Cookie, it is a data collection received by a device that is sent back without alteration. It helps keep track of the user's activity, helping companies that need people's information to track them easily. Though previously limited to the websites, it has expanded its scope across applications and emails, among others. It is favourable for those who seek a more personalised browsing time. As Eric Schmidt, the previous CEO of Google, said, "The goal is to enable Google users to ask questions such as 'What shall I do tomorrow?' and 'What job shall I take?".

The internet, the primary hub for collecting big data, is seemingly free to use. Besides the charges paid to the internet provider, the access and usage of most websites do not incur any cost. The services are not for free as the currency is an individual's data. It can be broken down into several models. The first is the data as a payment model, where the user's personal information is exchanged with other companies wanting to advertise. The second model is the freemium model, where revenue is not just from advertisement but payments made by users to access upgraded versions. The third is the pay-for-privacy model, in which privacy is considered a luxury for which money must be paid. The last model is the

personal data economy model, where users control their data and can choose the information they want to share.

With the understanding of these models that collect, store, sell and use for secondary purposes and the awareness of the information we have given online, doubts arise. Is big data solely the positive system used by the governments and corporations to enhance our experience, or is there something beneath that is being missed by most people.

5.0 The Noble Lie of Big Data

An ideal government is a stable democracy, requiring a shared identity and political culture. Like now, Plato identified people as brothers from the same earth, breeding their fraternity. For a *demos* to exist, there needs to be some form of collective identity. For the existence of such an identity, a strong communication network is essential. Such communication leads to the transmission, understanding, judgement and acceptance of the information and thus creating a feeling of commonness.

Today this common ground can be found on the internet. It is entertaining, educational and controversial content is a platform that unites people of a nation and across the world. While big data is based on the premise that its collection is food for the betterment of society, the extent to which it is collected, the agents involved, and the uses it is put into without the user's knowledge make the justification questionable.

Data mining is the most common method by which data is collected. Though it is claimed to be used to collect information against terrorist activities, critiques such as Brue Schneier are sceptical as searching for a terrorist is similar to looking for a needle in a haystack and pattern-based search only enlarges the haystack. On the other hand, companies claim that the data collected are used to improve the customer experience when in reality, the entire online information of a user is tracked, collected and stored or further used. A user's location, browser and search history, whom and what they like, songs and videos seen, purchase history, reviews and blog posts are all available. These can quickly help determine a person's location, income and health status. The revelations made by Edward Snowden in 2013 on the large amount of data collected and people surveyed by the U.S government is an example of government misuse. The Facebook-Cambridge Analytica Data Scandal, where information of 87 million users was collected and used without their knowledge for the 2016 presidential campaigns, is an example of corporate misuse.

The tracking of these companies and governments is not limited to those who use the services they provide but to any activity done online where companies like Google, Facebook, Amazon, and Twitter track the browsing and app usage history

of everybody. This data surveillance feeds into the idea of the noble lie that the ruler knows what is best for the people, with governments and corporations acting as the modern-day rulers, doing what is suitable for the public, which may have negative consequences.

Besides being tracked, the information collected can travel into various areas of everyday life, not just political or ethical concerns. The most explicit among these is differential pricing. With the information available, sellers try to predict buyers' responses to different prices. The practice of steering, which shows different prices to customers in different groups and personalised pricing created by behavioural targeting, is also used. Loyalty programs are the earliest example of this, as the company can record all the purchases and market the products accordingly. The consequences include employment, income, gender, weaponization, privacy, bias, access, machine ethics, social capital, and service provision. The biggest threat is for the marginalised groups. To receive the benefits that governments or other organisations give, they need to share more personal information, which can impact them negatively. They are also under constant surveillance by the authorities. The statistical models generated can group them into racial, ethnic, religious, or gendered groups and can be discriminated against from the other historically well-off groups. Such a situation can be compared to the noble lie in the myth of metals, where people naturally occupy social positions without freedom of movement and hence their continuous repression of the upper class through a lie.

6.0 Need for Privacy

Despite popular belief that people do not give much thought to privacy, it is significantly valued. Ian Carter (2011) has argued that there is one area where all humans are the same. He believes that we all are interested in being able to conceal or cover up certain aspects of ourselves to maintain outward dignity. Hence, we all desire to be treated as equals, a feeling referred to as evaluative abstinence. It can be seen in our surroundings as a person's character changes depending on the situation and with whom they interact. While interacting with friends' people have a relaxed, open attitude. However, while interacting in a formal situation or with strangers, people project a specific image of themselves and do not reveal their thoughts explicitly. It shows humans' basic desire to keep certain aspects of their life with themselves. Therefore, this approach is maintained while interacting with a new person, giving the person an ‘opacity respect’ in most cases. It is an understanding that each will keep certain information about themselves and are thus equal. This idea of equality is disturbed by dataveillance as the information of a person, more than what they might display on their public profile, is available for companies to sell and governments to

monitor. Compared to the noble lie, the lack of equality and determination of the life choices of a person by the ruler violates these values.

7.0 Need to Hide

A standard narrative propagated particularly by the government and major corporations is that one does not need to be afraid or worried about the collection of big data as it will trouble only the people who are harmful to the society, such as terrorists and violent criminals. Those who have no reason to hide something should not bother about their privacy. Others, such as Mark Zuckerberg, CEO of Facebook, also claim that privacy is no longer the social norm. Such feelings are echoed by several people in this age of social media rage, but in reality, the very people who propagate such claims significantly value their privacy. According to Glenn Greenwald, the reason for this craving for privacy is that when we are in a state of being monitored, our behaviour changes dramatically. The behaviour is conformist and compliant, with the decisions not being the by-products of their agency but other or societal orthodoxy's mandate.

Those who accept that governments target only the criminals need to redefine their understanding, as the definition of a criminal can change with the changing times or governments. If the same person who was content with the government today wants to dissent tomorrow, or if the same person who was okay with a company's policy today might want to oppose it tomorrow, they might find themselves targeted by the very ideas they supported. The level of freedom available in a country can be identified through how it treats its dissidents.

In the noble lie, this corresponds to the idea that good citizens would give their obedience to the ruler and his orders. This obedience might harm the people as they would be unable to raise questions on the matters that threaten them.

Hiding is necessary as it helps maintain our human dignity, with one of the main components of dignity being the ability to retain agency over oneself. How outward dignity is released will depend on social norms, but it will always be able to conceal elements of oneself or one's activities (Carter, 2011; Nagel, 1998).

8.0 Ownership of Data

Personal data can be defined as the data that relates to or can be used to identify a person. It is often assumed that personal data is owned by the person to whom it relates. Though this might seem instinctive, it is not as easily defined. Ownership is necessary. According to C.B. Macpherson, ownership is a right to dispose of or alienate as well as to use, which is not conditional on the owner's performance of social function (Macpherson, 2014). Jeremy Waldron defines ownership as 'how, by whom, and

on what terms the resource is to be used. An object is mine if it is for me rather than for anyone else to say what is to be done with it' (Waldron, 1991).

The critical elements of several definitions have the common occurrence of a sense of control and security. Ownership can be intrinsic, that is, natural or acquired as it is gained through a lifetime. Most people view ownership of personal data as intrinsic and necessary, but this can be contested. Personal data is correlated with the idea that it is similar to the ownership of one's body. This claim, though true, is not absolute as one does not have the right to the destruction of their body. Stephen Munzer gives this challenge. One only has a certain property right over it. It can be understood with the example of buying a famous painting. The buyer owns the painting but cannot destroy it as it does not belong solely to the buyer due to its greater artistic value.

On the other hand, the personal data of a person is undeniably their own, without which their entire identity can be stripped. The companies that collect the personal data of individuals sell them at fixed prices and earn large sums of money. For example, Facebook earned $108.6 billion overall in 2018 from targeted advertisements. If the companies have the freedom to use and sell the data from the individuals, then there exists ownership, as without owning something, it is not possible to sell. With this logic, the ownership of this data must belong to the people unless they sell it to the companies. Correlating this with other ideas is discriminatory as it prevents the majority of humankind from owning what is most intrinsic to them. In the noble lie, the idea that people come from the same earth but are unequal due to the decisions of a few prevails. Similarly, data is available to all but owned by a few, giving justifications that essentially put dust in the eyes of the general public. People need the right to use and dispose of their data as and when they require it. There also needs to be a shift to the responsibilities of the parties controlling it, which can be easily implemented and monitored.

9.0 Privacy Problems

Apart from the social and economic issues that continue the propagation of discrimination and differing payments, privacy problems can be identified in several steps. Solove has developed a taxonomy for this. The taxonomy has four main points followed by sub-points. The main points are information collection, information processing, information dissemination and invasion. The first section is divided into surveillance and interrogation. The second is divided into aggregation, identification, insecurity, secondary use and exclusion. The third is divided into the breach of confidentiality, disclosure, exposure, increased accessibility, blackmail, appropriation and distortion. The last is divided into intrusion and decisional interference. Governments and companies use these

today to varying degrees, violating the key areas that must be protected for our individuality. What makes this more astounding is that this is done at a large scale with everyone who uses the internet. Over time it creates an extensive collection of personal data that maps our entire lives and will be able to predict personal choices such as the place we want to live, whom we want to marry and our job preferences. It may not seem to be much of a problem. However, today's children who have been exposed to the internet even before birth face the danger of their entire life being saved without their consent as one collective data that can target them in visible and invisible ways throughout their lifetimes.

The risk it possesses is immense. Access to the health record of a family can be sold by the hospitals or applications to insurance providers and employers. The existence of an illness in the family can prevent the family members from receiving insurance, and employers could be unwilling to employ them, all while receiving constant advertisements. Similar examples include women receiving childcare advertisements after miscarriages and the elderly receiving advertisements about funeral services. It also creates psychological troubles for people trying to overcome difficult situations, and the ever-important role of the internet makes it necessary that they cannot escape. In comparison to the noble lie, the state dictating what is best for the people is similar.

10.0 The Wiser Party

The debate that often comes around is on who is wiser, the state, corporations, or the people? It directly relates to the idea of the noble lie according to which the ruler is wise and knowledgeable; therefore, all must follow what he says without a doubt. Examples of this can also be found in the world of big data. A simple example is demonstrated by the research conducted by Milkman et al. in 2009. They thought, what people claim they want to watch differs significantly from the content they consume. Their work proved it. While people say they want to watch documentaries or critically well-rated movies, they might finally watch a light-hearted or romantic comedy instead. People might be aware of this fact or dimly aware of it, but the fact that they are not the best judges of their actions remains. If given large enough data, as anticipated over the coming decades, a person who analyses or possesses this data could judge common people's interests better. It can elevate them to the position of the ruler in Kallipolis, whose wisdom and authority remain unchallenged. It is visible in the idea that a platform knows best what to do with the data available at its disposal.

While this is true to an extent, the opposite can also work easily. Plato is infamous for his design of democracy, with his main reasoning being that the rulers must have expertise, knowledge and wisdom. Sir

Francis Galton had similar thoughts and went to test them for himself through a simple experiment. He asked the public to place bets on the estimated weight of an ox at a country fair. His hypothesis predicted an inaccurate estimate, but the results of over 787 responses were 0.8 per cent of the actual weight (Galton, 1907). It shows the intriguing epistemic value of collective decision-making (Kinkead and Douglas, 2020). Though it is true that people are overcome by biases and might not make rational decisions, their decisions do hold value. This value cannot be ignored. Plato himself, despite his earlier assertion, places greater weight on the opinions of people in his later work. Adding to that is the rare occurrence of a superior and incorruptible ruler. Therefore, in most situations, the people's decisions as a collective hold more value and truth than those of a few rulers.

People listen to one another during belief formation and invest one another's responses with potential importance (Pettit and Smith, 1996). It shows that people also engage amongst themselves to seek better knowledge and opinions. In this interaction, as discussed before, an opaque exterior is presented, which acknowledges the privacy of the other. It must be respected by the state and corporations as well. Presumptive authority is also at stake in the relationship between citizens and the state (Fox, 2020). Citizens having authority over their own lives is what the state's position must be to a large extent. Anything that violates this to look into the citizens must be cancelled. Thus, people are wiser. The acknowledgement of their wisdom must be given by returning their data rights owned by others with the claim of superiority.

11.0 The Demise of Democracy

For the Athenians, the public space was the agora, the marketplace. Here, only one-to-one communication was possible and could reach only a few people. A standard message could be shouted, but individual messages were difficult. The speaker and the audience also additionally knew each other. Later, with the development of the printing press, it was possible to share information with a large number of people and anonymity was introduced. But it still could not specify messages as the printed data was open for all to read. It was not easy to target one without alienating the others. In both these cases, making false claims also came with the additional risk of losing reputation and credibility if false information is passed as it could easily be compared and contrasted.

The internet and big data have fundamentally altered the nature of political communication that has been the norm for ages. Message targeting through big data allows for content that is made specifically for an individual to reach them and corrupt their opinions and beliefs. At a large scale, this can become key to changing people's opinions, altering the nature of the political processes. The content can be distributed globally

without the earlier physical constraints or the fear that the different information would be leaked. The message is created by analysing the daily habits of individuals through any means that connect the internet, such as browsing, social media, maps and calendars, among others, that identify the biases and vulnerabilities of a person and with that enable the companies or political contestants to create a message that triggers an individual. People choose to not believe in merits but in what is easy to believe and how good it makes them feel (Frederick, 2005). It is seen with people occupying different online echo chambers due to homophily where similar people group, continuing to reinforce each other's views. It also blinds them from the views beyond their closed circle, leading to massive political divides and, in many cases, the propagation of fake news.

The lack of accountability by the companies or governments themselves or that imposed legally helps to further this as the corporations, in particular, profit-seeking entities promote the content that gets them the most engagement and not necessarily the accurate content. Controversy and stories that blend into what people of a particular demographic want to hear have more value than reality. Despite claims by various on controlling fake news, its prevalence is open to all, with it being only a search away from any search engine.

This dark advertising rattles the fundamental nature of a robust democracy based on the idea that people hear several ideas and make decisions and discuss them, but with micro-targeting, that is not happening (Wong, 2018). With the erasure of principles of equality, debate and the noble lie, the information is reaching all, and the future of democracy is doubtful. In comparison to Plato's ideas, it is notable that the noble lie is not seen in Magnesia which is more democratic. He seems to imply that the idea of lying to the masses and ruling over them is not possible in a democratic setup as it undermines even that value. Hence, big data can also shatter the foundation of liberal political structures.

12.0 Digital Panopticon

The first modern use of the panopticon model by Jeremy Bentham showed that when it is challenging to control everybody in a large setup, a prison-like system can be created where one is always under the assumption of being watched by an authority. It can be called mass surveillance. As discussed earlier, human beings change their behaviour when they know they are being watched, and such surveillance can create a prison in the minds of the people they would be unable to break free from. The extent is depicted in the book *1984* by George Orwell, where people are not being watched at all times but can be at any moment.

The most commonly used modern surveillance method is through the internet; in theory, this can be used to turn

the world into a digital panopticon. Examples of this can already be seen, such as a 2015 campaign in Hong Kong called Face of Litter organised by Ecozine and Nature Conservatory for Hong Kong Cleanup Initiative. The campaign publicly shamed people who littered the street with their AI-generated pictures on billboards across the city. The people's DNA was obtained from the trash they threw, which was entered into a system that identified their personal information. The AI used this to generate computerised three-dimensional images of people and shame them for not properly disposing of trash. A social credit system is also another example of such surveillance.

A society that is under surveillance will breed totalitarian rulers who have absolute control over every aspect of the citizens' lives. However, the greatest threat is breeding a society that is obedient and conformist. It removes the ability to dissent while curbing an individual's creativity, expression and exploration. As Rosa Luxemburg says, “he who does not move does not notice his chains.” The ever-increasing role of data in our lives combined with our increasing lack of control over it can lead to a future of mass surveillance, whether we acknowledge it or not. The noble lie of using data for welfare can quickly change into a control that extracts from all and benefits only a few.

13.0 Protection of Privacy

In the present circumstance, individuals are on their own in controlling the extent data can be taken from them. There are several methods by which at least some information can be masked, but individuals seem to ignore this. It can be due to the poor ease of use, ignorance and lack of concern or understanding of the consequences of data theft. It further leads to the services that provide people with safety tools being unprofitable, making it an area rarely invested in. Another concern can be the weak protection offered by several services that make data more susceptible to attacks. To have a more remarkable change, it must come from the governmental level. Laws that give people the right to their data and minimise the data accessible to companies and governments must be enacted. There needs to be an emphasis on the accountability of the corporations that use the people's data. There is also a need for increased transparency on existing and upcoming usages of data, including areas such as creating smart cities.

But changes that need to be brought about institutionally take time while technology continues to develop rapidly, making the laws ineffective by the time of their enactment. It is incredibly challenging as this must all be in an environment of public-private partnership that protects personal freedoms, organisational integrity and private revenue (Motupalli, 2017). However, just as the base in the Kallipolis lies in the people's ability to understand they are subdued, the importance of data matters most in this age of big data.

14.0 Conclusion

Big data is consuming the world around us, and we are a part of this as well. The noble lie of Plato, in its true sense, is relevant even today in understanding how the governments and corporations of the world conveniently lie to the masses and hide behind the possible real implications of this ever-growing area. Therefore, this is sophistry and not verity. The pandemic has also brought out several areas where data is insufficient without human understanding and has increased the risk of exposure of people who otherwise did not use the medium.

The only way to systematically curtail a possible dystopian future is to come together with an international understanding and prepare a global law on data protection. That alone can help prevent the misuse of various loopholes in the laws that exist in each country and can help combat the lack of laws across the world.

The research faced several limitations, such as time constraints and lack of exposure to resources beyond what is available online. Further areas of study can dwell into the legal specifications on constructing a data law and understanding Magnesia's lack of noble lies.

References

Aughey, Arthur. "The 'Noble Lie' of Politics." Fortnight, no. 397 (2001): 14–15.

De Busser, Els, Erica J. Briscoe, Benjamin C. Dean, Tatiana Tropina, and Miren B. Aparicio. "Big Data: The Conflict Between Protecting Privacy and Securing Nations." Big Data: A Twenty-First Century Arms Race. Atlantic Council, 2017.

Greer, Scott L. "Devolution and Health: Data and Democracy." BMJ: British Medical Journal 348 (2014).

Harden, Ian, and Norman Lewis. "The Noble Lie: A Rejoinder." The Modern Law Review 51, no. 6 (1988): 812–16.

Hogan, Mél, and Tamara Shepherd. "Information Ownership and Materiality in an Age of Big Data Surveillance." Journal of Information Policy 5 (2015): 6–31.

Macnish, Kevin, and Jai Galliott. 2020. Big Data and Democracy. Edinburgh University Press.

Motupalli, Venkat. "How Big Data is Changing Democracy." Journal of International Affairs 71, no. 1 (2017): 71–80.

Phelps, Joseph, Glen Nowak, and Elizabeth Ferrell. "Privacy Concerns and Consumer Willingness to Provide Personal Information." Journal of Public Policy & Marketing 19, no. 1 (2000): 27–41.

Pozen, David E. "Privacy-Privacy Trade-

offs." The University of Chicago Law Review 83, no. 1 (2016): 221–47.

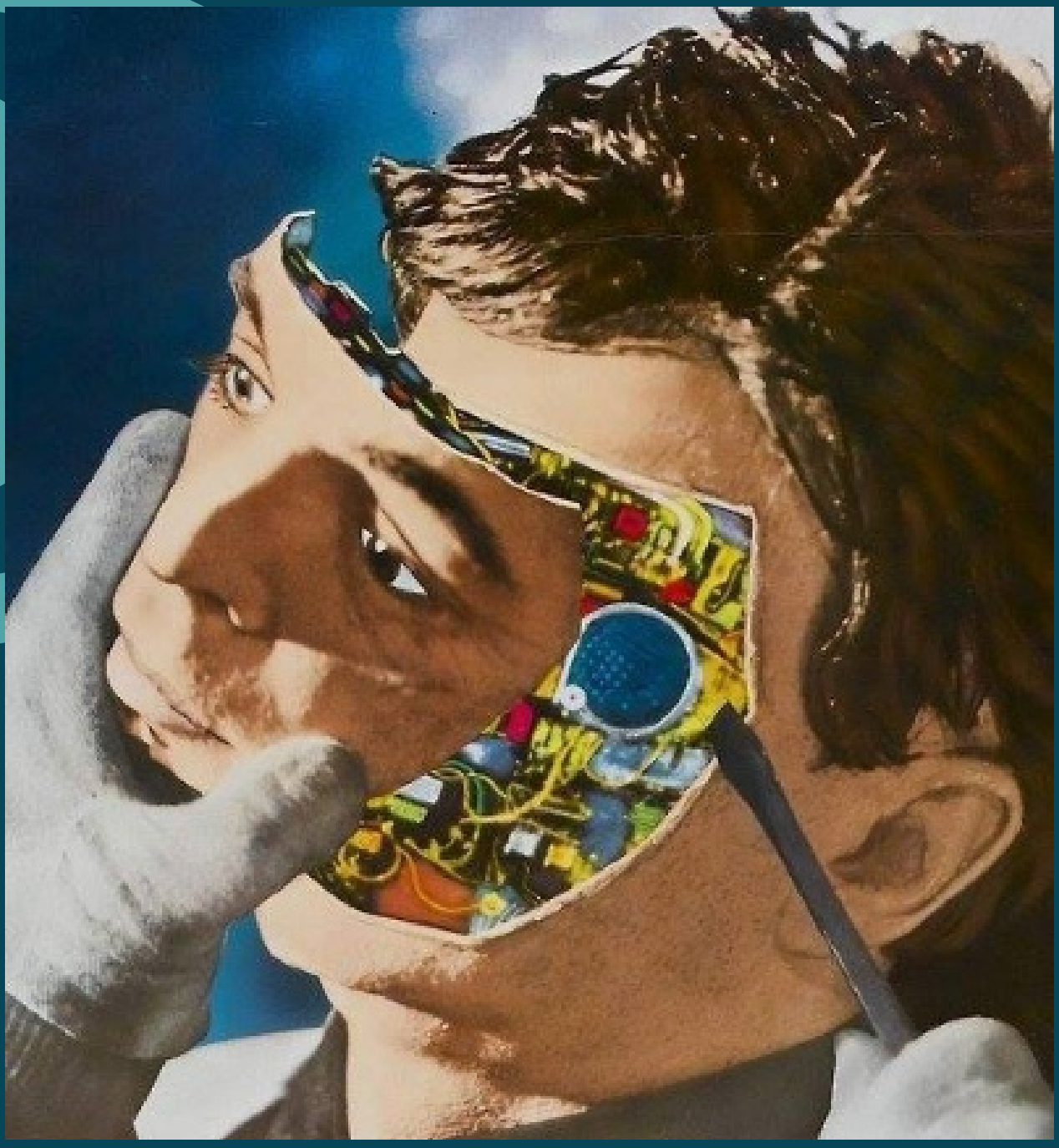
R. D. Lakin. "Plato: His Defenders and Detractors." The Antioch Review 22, no. 4 (1962): 496–512.

Rubinstein, Ira S., Ronald D. Lee, and Paul M. Schwartz. "Data Mining and Internet Profiling: Emerging Regulatory and Technological Approaches." The University of Chicago Law Review 75, no. 1 (2008): 261–85.

Schwartz, Paul M. "Property, Privacy, and Personal Data." Harvard Law Review 117, no. 7 (2004): 2056–2128.

Turley, Jonathan. "The Not-so-Noble Lie: The Non-incorporation of State Consensual Surveillance Standards in Federal Court." The Journal of Criminal Law and Criminology (1973-) 79, no. 1 (1988): 66–134.

Williams, David Lay. "Plato's Noble Lie: From Kallipolis to Magnesia." History of Political Thought, no. 3 (2013): 363–92.



Futureworld - 1976
An American science fiction thriller film directed by Richard T. Heffron and written by Mayo Simon and George Schenck.

Technology and Human Rights

Analysis of Data Protection laws, Right to Privacy and State Surveillance in the Indian Context

Ayushi Singh, Ishika Chaudhary & Siddhima Sirohi
Department of Political Science, Lady Shri Ram College

Abstract

Through this research paper, the authors have tried to understand the dilemmas that lie at the intersection of Technology and Human Rights, using both primary and secondary data. They seek to examine the use of AI interpretation in the age of facial recognition technology and its consequences, the role of the private sector in collaborating with the public sector to protect human rights, and the implications for accountability, particularly in a democracy such as India, which recognises privacy as a Fundamental Right.

1.0 Introduction

Through this research paper, the authors have tried to understand the dilemmas that lie at the intersection of Technology and Human Rights, using both primary and secondary data. They seek to examine the use of AI interpretation in the age of facial recognition technology and its consequences, the role of the private sector in collaborating with the public sector to protect human rights, and the implications for accountability, particularly in a democracy such as India, which recognises privacy as a Fundamental Right.

Through the case study of Delhi, the authors have looked at the dynamics of policing and the increased deployment of CCTVs in the city with state surveillance being a pertinent issue. Understanding that the dichotomy of the personal and private requires close study of all stakeholders, a primary research using google forms was undertaken wherein 50 respondents were asked to answer both MCQ and long answer questions on a range of themes related to Data Protection, Privacy and Human Rights. This was substantiated with interviews of lawyers, police officers, non governmental

organisations and government officials to better understand the nitigrities of the topic from a professional lens.

This paper is divided into nine parts : First part of the paper deals with Privacy and data protection laws in India, second part discusses the state of cyber crime in India and the linkage between cyber security and human rights, third part analyses the state surveillance, fourth part looks at data collection and COVID-19, fifth part emphasises on health and privacy, sixth part deals with finance and data, seventh part puts in a case study of Delhi, eighth part discusses the dilemmas , and finally conclusion and the way forward.

2.0 Privacy and Data Protection Laws in India

Clive Humby rightfully claimed that data is the new oil of the 21st century, as it offers the promise of new wealth for both private and public players. The advent of the digitised economy has resulted in the mass sharing of personal data both willingly and unwillingly. The COVID-19 pandemic has further pushed the trend of digitization and data sharing to a new level. As more social and economic activities move online, the importance of privacy and data protection is being widely recognised. However, technology is progressing at a rate that law is finding difficult to keep up with. According to the data released by UNCTAD in 2020, despite an 11% increase in the adoption of data protection and privacy legislation in the period 2015-2020, only 66% nations have attempted to safeguard people's data and privacy.

2.1 Indian Jurisprudence on Right to Privacy

Article 21 of the Indian Constitution does not specifically recognize 'right to privacy' as an extension of personal liberty, a question that has been raised before the Supreme Court in various cases starting from M. P. Sharma and Ors. v Satish Chandra, District Magistrate, Delhi and Ors to the most recent K. S. Puttaswamy (Retd.) v. Union of India. In K. S. Puttaswamy (Retd.) v Union of India, wherein the 'Aadhaar Card Scheme' was challenged on the ground that collecting and compiling of the demographic and biometric data of the residents can be possibly misused for purposes in breach of Article 21. Given the ambiguity of judicial precedents on the matter, the Hon'ble Supreme Court referred the matter to a constitutional bench consisting of 9 judges resulting in the landmark judgement that declared Right to Privacy as an intrinsic part of the right to life and personal liberty under Article 21 and protected under the Part III of the Indian Constitution.

2.2 Issues surrounding Data Privacy in India

2.2.1 State's interference in Right to Privacy

While the recognition of Right to Privacy as protected under Articles 14, 19 and 21 was an accomplishment in the right direction, the caveat that fundamental rights are not absolute and subject to

reasonable restrictions to protect the legitimate interest of the state leaves a possibility of government misuse. For example, in the Personal Data Protection Bill, 2019 the government has a lot of unwarranted powers such as granting exemptions to the government agencies from the requirements of the Bill.

2.2.2 Dilemma between "Rights based" data protection model and "consent based" data protection model

India currently operates on a consent based data protection model under which the data controller is free to use, process and share the data with any third parties, once the consent of the user is obtained. However, not many are aware of the actual consequences of indiscreet data sharing at the time of providing consent. Thus many scholars have argued that India should adopt a rights based model which gives greater autonomy to the users over their personal data. (ELP, 2017).

2.3 Data Protection Laws in India

There is currently no dedicated data protection legislation in India. Few pertinent provisions regulating inappropriate disclosure of personal information are provided in the Information Technology Act, 2000 ("IT Act") and the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 ("IT Rules") (Rai, 2020). Apart from this, there are penal provisions provided in the Indian Penal Code, 1860. The Government of India in July 2017 formed an Expert Committee under the guidance of Justice B. N. Srikrishna to examine the concerns relating to data protection in the country. In July 2018, a draft of the Personal Data Protection Bill 2018 was prepared after seeking suggestions from the public, industry experts and other stakeholders. On 11th December 2019, a revised draft in the form of Personal Data Protection Bill, 2019 was introduced in the Lok Sabha, which is awaiting clearance and deliberations before being declared as an Act (ELP, 2017).

As per the survey conducted by the authors, only 49% of respondents were aware of the Privacy and data protection laws in India. The remaining half were either unsure or unaware. Thus it can be inferred that there is a strong need to spread awareness among the people about the laws in order to ensure that they are better protected from privacy violations. The survey also reveals that the majority of people don't read terms and conditions before using social media. Therefore, digital literacy is the need of the hour. We must ensure that along with improving operating rates, we should also focus on how many people are skilled to protect themselves from internet crimes that breach privacy. Respondents expressed that a possible reason for digital illiteracy is because of the exclusionary availability of technology to only a few literate. When asked how effective data protection and privacy laws are, around 40% said that the laws in India are not very effective, while

44% said that these laws are moderately effective.

2.4 Analysis of the Personal Data Protection Bill, 2019

2.4.1 Key Features of Personal Data Protection Bill, 2019

The bill provides a legal framework for the collection and use of personal information. In addition to creating a set of rights and responsibilities for the processing of personal data, it proposes to set up a DPA regulation and enforcement. The bill also vests substantive standard-setting powers with the central government and tasks the DPA with enforcing the same.

An important feature of the bill is the wide scope of its applicability- to all enterprises across India other than those specifically exempted. Significantly, it makes consent a centrepiece of the proposed data protection framework- free, informed, and specific consent, with provisions that allow such consent to be withdrawn. Any data processing without such consent would be a violation and could result in penalties. It also creates a separate category of "sensitive personal data" and states that such data can be processed only with "explicit consent." Consent has to be taken after giving the user (defined as the "data principal") adequate information about the kind of data that will be collected and the purpose for which it is being collected. Under the proposed framework, the data fiduciary will be required to ensure the data is accurate and stored only for the period necessary for satisfying the purpose of data collection.

2.4.2 Problem areas in the Personal Data Protection Bill, 2019

i) The PDPB, 2019 proposes a preventive framework that oversupplies government intervention and strengthens the state.

ii) The bill if implemented, could lead to a significant increase in compliance costs for businesses across the economy. This is problematic since most businesses in India are small. Such compliance requirements would be especially onerous for them.

iii) This bill also allows the government to compel businesses to share non-personal data with it. This could have deleterious consequences for innovation and economic growth in the long run.

iv) Some scholars argue that the bill's reliance on strengthening consent-based mechanisms for protecting personal data is not likely to be effective. Studies have highlighted that increased disclosure requirements to users about the use of their data are becoming ineffective in light of modern technological developments.

v) Another issue with the bill is the proposed design of the Data Protection Authority (DPA). This body will be tasked with regulating the provisions of the bill to frame regulations on issues such as mechanisms for taking consent, limitations on the use of data, and cross-border transfer of data. The supervisory mandate of the DPA is sweeping, given the fact that it has to regulate a wide array of preventive obligations, such as security safeguards and transparency requirements, that have to be implemented by businesses.

vi) The bill allows the government to exempt any of its agencies from the requirements of this legislation and also allows it to decide what safeguards would apply to their use of data. This, as the paper argues, potentially constitutes a new source of power for national security agencies to conduct surveillance and, paradoxically, could dilute privacy instead of strengthening it.

3.0 Cyber Crime, Cyber Security and Human Rights

Cybercrime can be understood as any illegal activity that uses a computer as an instrument, target, or means of committing further crimes. There is no definition of 'cyber-crime' in any of the legislation, but cybercrime legislation can be found in a variety of statutes and even rules drafted by different regulators.

3.1 Cyber Crime in India

Data is the greatest asset of the new information age, and thus it is very important to safeguard it and prevent misuse. With increasing dependence on Information and Communication Technology (ICT) in fields like defence, governance, health, and education, trends have also uncovered the rising risks of cyber attacks which have previously resulted in the closure of hospitals, and have taken electrical grids offline, brought major cities to a standstill, and even affected the integrity of democratic processes in many countries (Brown and Esterhuysen, 2019).

India, in particular, has seen a 37 per cent increase in cyber attacks in the first quarter of 2020 compared to 2019 with a minimum total cost of up to Rs 14 crore in 2020 as reported by an IBM study. This statistic puts India as one of the top countries in cybercrime (Shinde and Alawadhi, 2021). This is despite the provisions in the Indian Penal Code, 1860 (IPC) and the Information Technology Act, 2000 (IT Act) that penalise them(Kumari, 2021). Despite this growing concern, the issue of cybersecurity has received relatively little attention from policymakers to the extent that the government has been unable to tackle the country's growing need for a robust cybersecurity apparatus.

3.2 Cyber Security and Human Rights

Human Rights are guaranteed under the United Nations' Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR) and include rights such as freedom of expression and speech, freedom of opinion and association etc. In July 2012, the UN Human Rights Council confirmed that "the same rights that people have offline must also be protected online," thus making the formerly mentioned human rights declarations of UDHR, and ICCPR applicable to the Internet (Ketteman, 2012).

According to the definition developed by the Freedom Online Coalition, Cybersecurity is defined as "the

preservation – through policy, technology, and education – of the availability, confidentiality and integrity of information and its underlying infrastructure so as to enhance the security of persons both online and offline. Threats to cybersecurity can include computer viruses, spam, identity theft, data breaches, denial of service attacks, and cybercrime. With cyber threats becoming more common and severe, governments around the world are increasing their focus on strengthening cyber security. However, in doing so they often end up ignoring the human rights dimension. Experts argue that many governments around the world have this misguided tendency of viewing human rights as an impediment to cyber security (Rossini and Green).

This idea of seeing human rights and cyber security as opposites is very problematic. A number of cybersecurity measures that have been taken up by countries could have a negative impact on online speech and freedom of expression by directly infringing upon such rights, For instance- Internet shutdowns, mass government surveillance, data leak for financial gains, targeted attacks on human rights defenders are just a few examples of severe human rights violations. A report by the Association for Progressive Communications (APC), a non-profit organisation working on issues like human rights and internet access, highlighted that cyber threats or cyber insecurities are not experienced evenly by everyone. Human rights defenders, journalists, and people positions of marginalisation or vulnerability, because of their religion, ethnicity, sexual orientation or gender identity, are at a greater risk than others (APC, 2019).

In 2013, the UN Special Rapporteur on Freedom of Opinion and Expression issued a report on the impact of surveillance on human rights, noting that "the use of an amorphous concept of national security to justify invasive limitations on the enjoyment of human rights is a serious concern." Thus to ensure that the laws and policies made on cyber security take into account the human rights angle it is important to adopt a multi-stakeholder approach where all the stakeholders i.e governments, private sector, technical community, and civil society are involved in the process of policy formulation.

4.0 State Surveillance: Big Brother is Watching you

Fear is not of being seen but that of being seeable at all times- Bentham

Centralised Monitoring System (CMS), 2009 is important to understand with regard to state surveillance. The government claims the CMS is based on the Telegraph Act of 1885 which states that the central or state government may intercept messages if the government is "satisfied that it is necessary or expedient to do so in the interests of the sovereignty and integrity of India, the security of the

state, friendly relations with foreign states or public order or for preventing incitement to the commission of an offence." (Sankaran, 2018) With the CMS, the government gets centralised access to all the content traversing through telecom networks in India and to all communications meta-data, giving the government full access to mobile data including voice recordings, emails and personal chats. Addison Little makes a rather bold claim stating that governmental, infrastructural, and cultural barriers will likely impede public opposition to CMS, leaving Indian citizens largely without redress to vindicate their civil liberties. This is a direct attack on the democratic values of our nation.

The google survey also proves that the majority of respondents (i.e. 51%) believe that state surveillance is an infringement of their rights. One of the respondents wrote clearly in the survey that "Definitely, state surveillance is an infringement of our rights as states conduct unlawful surveillance without fear of legal consequences as it was done in an emergency". Reasons need to be ethically justifiable.

The C-dot report mentions a centre for excellence for Lawful Interception being set up which will use high-end technologies such as open-source intelligence, image processing and search engine tools to scan Facebook and Twitter for surveillance. However, there is no such Intelligence agency in India with a clearly established role and power functioning. Consequently, there is no public accountability. A 2011 IBM study showed users spent just six seconds to read the agreement and only 8% read the whole agreement before installing software.

5.0 Data Collection & COVID-19

Contact tracing techniques during COVID have increased the surveillance of the state. A report published by the Paris-based cybersecurity consultancy Defensive Lab Agency highlights that the Aarogya Setu app not only traces user function but it can also be used to turn on built-in sensors such as the microphone. It can also access a smartphone's data and contacts which can pose a major hindrance to the privacy of citizens. From the survey, it can be inferred that the majority of the respondents (68.6%) believe that the right to privacy has taken a backseat during the pandemic.

An investigation by Huffington Post India also revealed that the Unique Identification Authority of India – which managed the Aadhar database – wants to amend the Aadhar rules to render "meaningless" the data privacy measures that were put in place to protect personal privacy. The result would be an "all-encompassing, auto-updating, searchable database to track every aspect of the lives of each of India's over 1.2 billion residents" and "reveals how the Indian government is rapidly building surveillance infrastructure under the guise of poverty alleviation and how

organisations like the World Bank are happy to offer advice to developing countries building intrusive systems that may not pass muster in places like Europe."

Documents obtained through the Right To Information Act by Srinivas Kodali, data and internet governance researcher, and the authors suggest that under the guise of creating an SECC that automatically updates itself in real-time, the National Social Registry (or the Social Registry Information System or SECC Social registry as it is also known) will either be a single, searchable Aadhaar-seeded database or "multiple harmonised and integrated databases" that use Aadhaar numbers to integrate religion, caste, income, property, education, marital status, employment, disability and family-tree data of every single citizen (Shrivastava, 2020).

Across the border, China's Social Credit System has presented an interesting model of state surveillance wherein every act of the citizen is monitored in a public area and accordingly his/her credit score is decided. One city, Rongcheng, gives all residents 1,000 points to start. Authorities make deductions for bad behaviour like traffic violations, and add points for good behaviour such as donating to charity (Kobie, 2019). The 2014 document describing the government's plans notes that as "trust-keeping is insufficiently rewarded, the costs of breaking trust tend to be low." Whether this sincere culture is good or not poses a dilemma.

6.0 Health and Privacy

Health information is highly sensitive and personal. The IT act doesn't provide any definition of personal data. For our respondents, personal data includes an individual's unique credentials like pictures, health information and interests. They agree that technology in healthcare will open new doors of innovation, but at the same time, feel that it also needs to penetrate at the grassroot level to make it inclusive.

Recently the Digital health mission was launched which is the right step but we also need to note that the majority of the population live in rural areas and don't have access to mobile phones. Also, health data can lead to discrimination in employment opportunities also, for instance, the taboo against mental health which is a part of sensitive personal information. It is important to note that Indian Law doesn't provide any security for sensitive personal information. In an increasingly digitised world, the collection of data is inevitable, the real problem is how that data is processed and the risks associated with it. The Supreme court of India has also noted that privacy invasions often go undetected because of the non-rivalrous and invisible nature of data access, storage and transfer. Cross-border transfer of data is also an issue which needs more attention.

7.0 Finance and Data

Financial data is another very important

component of the web today. The Account aggregator framework of the RBI, implemented in September 2021, seeks to help collate financial data and enable easy flow of financial data of customers between financial information providers and financial information users with account aggregators acting as intermediaries. Since data ownership is with individuals, the customer's willingness to share the data will play a crucial role but financial data theft still remains a major issue.

Data and ethics need to be interlinked. For instance, the UK's Financial Account Authority which is responsible for regulating open finance for the UK market in its "Call for Input on Open Finances" highlights the issue of data ethics arising out of the interconnected systems. The use of machine learning, artificial intelligence, and the risk of perpetuating existing biases and prejudices present additional potential risks emanating out of open finances (FCA 2019).

Another concern that has been highlighted by researchers is that the consent architecture adopted by the account aggregator system may not address the needs of the feature phone users in India who may not have access to a reasonably good internet connection and electricity (Raghavan and Singh 2020). We have to make consent as the condition of the service otherwise it is just an illusion. Data mining is another huge issue requiring regulation and there needs to be a structured data sharing system.

8.0 Case Study: Delhi

Delhi has the most cameras (1,826.6) per square mile in the world. One study that evaluated the effects of CCTV in Cambridge city details that "CCTV had no effect on crime according to survey data, and an undesirable effect on crime according to police records." The function of the cameras, in reality, is different from the stated purposes. "Surveillance intensifies the targeting of the people that the police already target. This can mean different groups in different countries, but often includes minorities and the marginalised… over-policed and over-surveilled areas happen to be areas with a significant Muslim population. This means that Muslims will bear the brunt of the inaccuracy of facial recognition technology, especially given Delhi Police's decided lack of friendliness towards Muslims recently." (Vipra, 2021) Face Recognition Technology is also prone to general inaccuracy, even though the error rate is reducing as technological improvements occur. It can produce both false negatives and false positives (Crumpler, 2020).

To understand the dynamics of policing and CCTV cameras in Delhi, the authors referred to the report "The use of facial recognition technology for policing in Delhi" by the Vidhi Centre for Legal Policy. The pogrom ravaged North-East Delhi in February 2020, further victimisation of Muslims followed, with arbitrary arrests and police harassment.

Delhi Police claimed that 137 of the 1800 arrests connected to this violence were made using FRT. They also claimed that "the accused were arrested mainly on the basis of CCTV footage and open-source videos."(Vipra, 2021)

An interview with a police officer of Delhi named Mukesh Chaudhary, posted in East Delhi, revealed that "increased use of facial recognition technology, their task has reduced and it's helping them to catch criminals." According to him, Data collection is "inevitable." Cameras have also been installed in government schools of Delhi although the CM of Delhi, Arvind Kejriwal has reassured that there will be no privacy breach as children go to school for education, to learn discipline, and become good citizens of the country… they do not go there for anything private. There has also been a sharp increase in cybercrime In Delhi during the pandemic. According to the Delhi Police, 24% of the complaints were related to social media, primarily online harassment, and the rest 14 per cent were related to crimes such as hacking and data theft.

9.0 Human Rights and Technology- New Challenges for Justice and Accountability

With the increasing development in the technological arena, we have undoubtedly witnessed profound changes. However, with this rise, a crucial question that needs addressing is- Is this really helping towards the framework of human rights? The power symmetry in the context of technology is deeply unequal. Although it has proven to be a more efficient system of governance due to its speed and is even credited for democratisation; it turns out that speeding up the process, in the long run, is not smooth. For example, social movements can accelerate their process, but the long-term process of organic development can now mature at a much faster rate, granting them power for a much longer period of time and without requiring many years of experience. Taking such steps with the help of technology could lead to gross social injustices as well as infringement of human rights for it allows power exertion over those deprived of technology by those who are already well off.

Recent developments in the field of Artificial Intelligence(AI) and automation, show a lack of emphasis on 'accountability'. Although AI has helped in gathering data on right abuses, or even in the case of recreating crime scenes, it has at the same time undermined efforts of 'accountability'. The actors who have actually utilised technology to perpetuate violence may not be held to the same standard as those who have inflicted human rights violations, and therefore may not be held accountable in the same way because technology tends to naturalise crimes and make them sound inevitable.

A study from MIT found that gender

classification systems sold by several major tech companies had an error rate as much as 34.4 percentage points higher for darker-skinned females than lighter-skinned males. Likely due to skewed data sets, examples like this present a myriad of problems in decision-making, especially in employment recruiting and criminal justice systems. Last year, WIRED published an article called "Artificial Intelligence Makes Bad Medicine Even Worse," which highlights how diagnoses powered by AI aren't always accurate, and when they are, they're not always necessary to treat. Imagine getting screened for cancer without having any symptoms and being told that you do in fact have cancer, but later finding out that it was just something that looks like cancer, and the algorithm was wrong. (Stoecker, 2021) What needs the government's attention is the preliminary stage of AI design and the glaring lack of ethicality embedded in it.

With the changing landscape between the public and private, there is a noticeable connectedness between the two. On one hand, state surveillance has helped in ousting terrorism activities to a certain level and aided the state in preventing foreign interference and violence-related activities which can prove to be highly detrimental for the civilians; on the other hand state entrustment of regulation to private actors leaves civilians' personal data being processed and managed by private firms arguably driven by purely commercial interests, unconcerned about human rights and seldom held accountable for their discriminatory practices. The survey results show that only 11.8% of respondents believe that their right to privacy is protected by private social media companies like Facebook and Twitter while 89% do not trust them. 52.3% of respondents believe that the government should regulate the collection of personal data by social media companies whereas 20.5% on the other hand felt that it should not do so. 27.3% of respondents also felt that maybe the government should be able to do so given the major phase of technological advancement we live in.

There happens to be an embedded privilege when we talk about the recent surge in the digitalization of education and office work. Covid-19 introduced us to the new normal, that is the online phase of our lives where all our work is conducted with the help of the internet. But while the privileged section of society didn't face any hurdles in this change of lifestyle, a large section was left out. According to a report by UNESCO, half of all the students out of the classroom- or 830 million learners globally- did not have access to a computer. Thus, in order to bridge the already present gap between the rich and poor, there is an express need for the government to provide resources.

It has also been realised lately, that technology needs to work in accordance with the guidelines and direction of law and be well versed in its monumental societal impacts. Hence the role of activists

becomes very important in ensuring that technology does not really consider a narrow approach towards politics and society. Moreover, we see it is the state that introduces technology and ends up shaping it accordingly, and this often results in further entrenching the persisting inequalities. Hence, the vulnerable population, particularly from the global south must be considered as a part of artificial intelligentsia so that the limited technological interpretations can be improved and made inclusive.

10.0 Recommendations

Who controls data and how it is used raises significant political questions? Some suggestions to regulate this powerful tool include-

10.1 Encryption Laws

India lacks an encryption policy that protects the confidentiality and integrity of its' citizens' information whether in transit or storage. In 2015, the government had attempted to put forward a draft National Policy on Encryption (Mathur, 2015) but it was withdrawn within two days for its unfeasible and unclear provision. Since then, the 2nd draft on encryption was never released.

10.2 Data Protection Authority

The authors propose the formation of a Data Protection Authority responsible for managing data as envisaged in the Personal Data Protection Bill, 2019. The framework should include data protection officers and regular data audits.

10.3 A Data Tribunal

Government bodies also need to be in the ambit of data access restrictions. An independent tribunal concerned with data protection should be created for the speedy disposal of cases relating to the right to privacy and protection of personal data. Annual reports should be published on such cases to generate awareness among the masses.

10.4 Inspired by the Best Practices

The European data directive on data protection is worth considering: Collection limitation principle, Data quality principle, purpose specification principle, use limitation principle, security safeguard principle, openness principle, individual participation principle, and accountability principle.

10.5 Adoption of a Multi stakeholders approach while formulating cyber security policies

To ensure that the laws and policies made on cyber security take into account the human rights angle, it is important to adopt a multi-stakeholder approach where all stakeholders, i.e., governments, private sector, technical community, and civil society are involved in the process of policy formulation.

10.6 Data Time Limit

There should be a time limit for data, like an OTP, to ensure optimal user consent, prevention of misuse, and safeguarding of

the right to privacy of an individual.

11.0 Conclusion

The combination of the increasing power of new technology and the diminishing clarity and agreement on privacy has given rise to problems of law, policy, and ethics. A balance between technology and legislation is required to allow citizens to make the best use of technology along with enjoying safeguards from its pitfalls. Technology and human rights need to progress hand-in-hand for there to be meaningful development.

Nicole Perlroth in her book *'This is how they tell me the world ends'* warns about 'zero-day', the most coveted tool in a spy's arsenal that gives them the ability to spy silently to obtain information. And information undoubtedly brings power. As we all near 'zero-day', or are likely in the midst of it, it becomes even more crucial to develop a decentralised search engine, put into place strict regulations and accountability mechanisms, strive for inclusive and equal growth and most importantly, educate ourselves and be cognizant of the risks that accompany technology's promised liberations.

References

APC Report. "The Surveillance Industry and Human Rights." May 2019. https://www.apc.org/sites/default/files/APC_submission_Surveillance_industry_and_human_rights.pdf

Brown, Deborah and Anriette Esterhuysen. "Why Cybersecurity Is a Human Rights Issue, and It Is Time to Start Treating It like One." APC. November 28

Crumpler, William. "How Accurate are Facial Recognition Systems – and Why Does It Matter?." Centre for Strategic & International Studies. April 14, 2020.

"Data and Privacy Unprotected in One Third of Countries, despite Progress." UNCTAD. April 29, 2020.

"Data Protection & Privacy Issues in India, Economic Laws Practice." September 1, 2017. https://elplaw.in/wp-content/uploads/2018/08/Data-Protection-26-Privacy-Issues-in-India.pdf

Goel, Ashish. "Indian democracy cannot survive a surveillance state." The Times of India. July 26, 2021.

Kettemann, Matthias."UN Human Rights Council Confirms that Human Rights Apply to the Internet." July 23, 2012. https://www.ejiltalk.org/un-human-rights-council-confirms-that-human-rights-apply-to-the-internet/

Kobie, Nicole."The complicated truth about China's social credit system." Wired. June 7, 2019.

Kumari, Shreya. "Cyber Crimes in India and Its Legal Remedies." Times of India. July 15, 2021.

Nayadu, Ujjawala. "Delhi Police Introduces Smart Technology For Its Forces' Modernization & Citizens' Welfare." Business World. June 21, 2022.

"Our recommendations to protect Indians against data breaches." Internet Freedom Foundation. https://internetfreedom.in/our-recommendations-to-protect-indians-against-data-breaches/

Rai, Sambhavna. "Legal and Regulatory Issues of Privacy and Data Protection in e-Commerce: An Analytical Study." May 2020.

Rossini, Carolina, and Natalie Green. "Cybersecurity and Human Rights." https://www.gp-digital.org/wp-content/uploads/2015/06/GCCS2015-Webinar-Series-Introductory-Text.pdf

Sankaran, Keerthana. "Big Brother is here: Amid snooping row, govt report says monitoring system 'practically complete'." The New Indian Express. December 24, 2018.

Shinde, Shivani and Neha Alawadhi. "India Becomes Favourite Destination for Cyber Criminals amid Covid-19." Business Standard. April 6, 2021,

Shrivastava, Kumar Sambhav. "Documents Show Modi Govt Building 360 Degree Database To Track Every Indian" HuffPost. September 15, 2020.

Stoecker, Dean. "Protecting The Human: Ethics In AI." Forbes. June 10, 2021.

"The Personal Data Protection Bill, 2019.", Ministry of Law and Justice. https://prsindia.org/billtrack/the-personal-data-protection-bill-2019

Vipra, Jai. "The Use of Facial Recognition Technology for Policing in Delhi An Empirical Study of Potential Discrimination, Centre for Legal Policy." August 2021.

'Transhumanism Inevitability' by Roman Bonchuk
The painting depicts lamentation over the robot-messiah, drawing parallels with the biblical messiah, challenging us to question the promise and fate of transhumanism in the future.