Journal Impact Factor (JIF)™ 2022: 0.2 | 5 Year: 0.2 | *Source: Journal Citation Report™ 2023 (Clarivate Analytics)*

AESTHETIX MEDIA

RUPKATHA JOURNAL ON INTERDISCIPLINARY STUDIES IN HUMANITIES

ISSN 0975-2935 | Indexed in the Web of Science Core Collection™ Emerging Sources Citation Index (ESCI)

https://doi.org/10.21659/rupkatha.v15n4.06 | Volume 15, Number 4, 2023 | Dynamic Impact Dimensions

Research article

Exploring the Transformative Potential and the Challenges of Artificial Intelligence in Vauhini Vara's *The Immortal King Rao*

Ruchi Singh[1]* ✉, Gibu Sabu M[2] ✉

[1]Department of English and Modern European Languages, University of Lucknow. *Corresponding author.
[2]Amity Institute of English Studies and Research, Amity University Uttar Pradesh, Noida Campus.

Abstract

Artificial Intelligence (AI), an ever-evolving technological frontier, stands poised at the nexus of human ingenuity and innovation, catalyzing transformative shifts across myriad facets of contemporary existence. Since its inception in the mid-20th century, AI has evolved from rudimentary algorithms to sophisticated neural networks, becoming ubiquitous. From shaping the way we communicate and conduct research to bolstering security measures and revolutionizing healthcare, the influence of AI is inexorably seeping into global socio-cultural lives. However, this incursion into the human domain is not without its complexities and ethical problems, prompting a reflective journey into the intersection of AI and our shared reality. This research paper explores AI's constant advance and its symbiotic relationship with humanity, as delineated in Vauhini Vara's provocative novel, *The Immortal King Rao*. Drawing from the multifaceted canvas of AI's influence, this research seeks to unravel the implications of AI systems and their convergence with governance, ethics and distributive justice, human evolution, and environmental consequences, ultimately illuminating the complex fabric that binds technology to the collective human experience.

Keywords: Artificial Intelligence, Vauhina Vara, *The Immortal King Rao*, Geopolitical Transformation, Distributive Justice, Human Evolution, Environment Degradation.

SUSTAINABLE DEVELOPMENT GOALS **Peace, Justice, and Strong Institutions**

Introduction

Artificial Intelligence, generally, involves the development of computers capable of executing tasks that traditionally rely on human intelligence, such as problem-solving and decision-making (Araujo, Helberger, Kruikemeier, & de Vreese, 2020). This signifies a fundamental transition from humans instructing computers on what to do to computers acquiring the ability to learn and make decisions independently (Franke, 2019). The term Artificial Intelligence (AI) first appeared at the

Article History: Received: 24 October 2023. Revised: 02 November 2023. Accepted: 03 November 2023. Published: 03 November 2023.

Citation: Singh, R. & Gibu, S. M. (2023). Exploring the Transformative Potential and the Challenges of Artificial Intelligence in Vauhini Vara's *The Immortal King Rao*. *Rupkatha Journal* 15:4. https://doi.org/10.21659/rupkatha.v15n4.06

Dartmouth Artificial Intelligence Conference held in 1956. In 2023, AI has ushered in a wave of transformation across industries and daily life. AI is improving information retrieval (Jones, 1991), altering the way we communicate (Richter & Mammen, 2011), personalizing digital and virtual experiences (Bas¸tug, Bennis, Médard, & Debbah, 2017), targeted advertising (Boerman, Kruikemeier, & J. Z, 2017), strengthening healthcare (Ekbia, 2010; Meissner, 2019), optimizing energy use (Danish, 2023), enhancing customer service, augmenting traffic management (Kornecki, 1994; Kumar, 2023), bolstering security (Sweijs, 2018), automating tasks (Sanders & Gegov, 2013), etc. AI's impacts range from personalized education to content creation (Gable & Page, 1980), while also advancing scientific research (Ciaccio, 2023), assisting in organizational work (O'Leary & O'Keefe, 1997), and influencing national security (Sharma, 2022). As it continues to evolve, AI's influence is expanding and reshaping the way we live and work. Furthermore, AI has upended the political landscape and become a factor in global competition. Inevitably, AI is poised to become indispensable in virtually every sphere. Not only there is infinite potential for the uses of AI but also it is scalable (Sweijs, 2018). With its limitless and transformative potential, AI will not only influence all aspects of life but also will dominate the world (Franke, 2019).

Many speculative fiction writers have ventured into the realm of AI and its transformative potential. Asimov's *I, Robot* (1950) introduced Three Laws of Robotics; Gibson's *Neuromancer* (1984) popularized cyberspace; Dick's *Do Androids Dream of Electric Sheep?* (1968) renders AI as a harbinger of existential questions; Atwood's *Oryx and Crake* (2003) envisions an AI-driven dystopian future; Chiang's *The Lifecycle of Software Objects* (2010) examines ethical and emotional complexities in interacting with AI; Wilson's *Robopocalypse* (2011) explores the AI-human relationship and its potential dangers; Leckie's *Ancillary Justice* (2013) questions AI-human consciousness boundaries and AI-driven servitude; Shusterman's *Scythe* (2016) portends moral implications of granting AI the power to make life-and-death decisions; Ishiguro's *Klara and the Sun* (2021) focuses on AI-human relationships through an Artificial Friend named Klara. Together, these novels, and many more, offer rich perspectives that collectively trace the evolution of AI in literature and its manifold implications, providing a literary context for our contemporary reflections on Vara's *The Immortal King Rao*.

Vauhini Vara, a distinguished journalist, is celebrated for her incisive analyses and commentaries on various facets of modern life, the impact of technology on society, labor and employment issues, economic inequality, and the intersection of business and culture, the gig economy, and automation. Her experience as a tech journalist foregrounding the complexities and implications of technology-driven changes in society and the economy spills over her debut novel *The Immortal King Rao*, published in 2022. The dearth of prior academic engagement with Vauhini Vara and *The Immortal King Rao* leaves a substantial gap in our understanding of AI's constant advance and its symbiotic relationship with humanity, as delineated in the novel. This research aims to fill that void and provide valuable insights into the consequences of AI systems and their convergence with governance, ethics and distributive justice, human evolution, and environmental consequences, ultimately shedding light on the complex fabric that connects technology to the collective human experience. This research involves a comprehensive literary analysis of the novel examining AI's role in the narrative. To substantiate the findings and provide a broader contextual framework for the analysis, the paper also engages with relevant scientific literature on AI and real-world AI advancements. This study will help place *The Immortal King Rao* within the ever-

expanding oeuvre of AI fiction, contributing to the rich landscape of narratives that explore the relationship between artificial intelligence and human existence.

AI and Geopolitical Transformation

Vara constructs a compelling vision of a future in *The Immortal King Rao* where the conventional framework of nationalist governments has been replaced by the Shareholder Government. This transformation stems from the culmination of nationalist movements in nation-states that triggered worldwide governmental responses involving immigration restrictions and trade embargoes. As a countermeasure, King Rao introduces the paradigm-shifting concept of the Shareholder Government (SG) to the global stage. This governance model is predominantly driven by artificial intelligence-based decision-making systems. It presents a distinctive response to contemporary geopolitical challenges through its innovative governance by integrating algorithmic decision-making. In the SG model, the core idea is to replace human intelligence with Artificial Intelligence to provide fair and informed governance by predicting individuals' actual productive value, as Gevel and Noussair predicted "AI will create a human-machine civilization" (Gevel & Noussair, 2013). This new form of governance uses forces of techno-capitalism to challenge and deterritorialize the traditional forms of governance, fixed geographical boundaries, established political systems, individualized education systems, heterogeneous legal systems, and seemingly stable identities.

The Shareholder model represents a fundamental departure from traditional governance structures, as AI algorithms and technologies assume a pivotal role in shaping and executing public policies, regulations, and administrative decisions. The citizens of this emerging societal order are designated as "Shareholders" collectively possessing ownership stakes in corporations and accumulating "Social Capital" as a novel form of currency. The governance system relies on the Master Algorithm, called Algo, an artificial intelligence construct developed by Coconut, which utilizes individuals' "Social Profiles" as inputs for decision-making processes (Vara, 2022). The accumulation of Social Capital is linked to individuals' Social Profiles, and compensation is determined based on an algorithm's prediction of their actual productive value (Vara, 2022). The algorithm would make decisions based on demographic markers and lived experiences, aiming to provide fair and informed governance by supplanting corrupt politicians. This master Algo has a consciousness and a conscience (Meissner, 2019). Integral to this model is the allocation of public vote share, a departure from traditional geographical considerations (Vara, 2022). The algorithm, rather than geography, determines the distribution of voting influence. The SG also proposes to address fundamental needs such as food, water, energy, and education through a unique funding mechanism. A portion of citizens' capital is regularly extracted, and the algorithm determines the optimal investment of these funds. Concurrently, the SG overhauls and restructures institutions, introducing global standardization of educational systems, and gamified curricula, and reforming criminal justice with algorithmic guilt determination. These aspects of human and resource management raise several ethical questions like the degree of responsibility given to a machine, and accountability (Khalil, 1993; LaChat, 1986; Boden, 1990; McCorduck, 1979). King Rao's governance model asserts that capital, diligent effort, and vigilance are the cornerstones of success, leveraging techno-capitalism to challenge traditional governance structures,

geographical borders/boundaries, and seemingly stable identities. King Rao's vision captivates the masses with the promise that AI-driven progress will lead to abundant prosperity and the eradication of human miseries, allowing everyone to craft a life of enduring happiness and unprecedented success (Vara, 2022). The acceptance of such a novel form of governance comes from the view that "algorithmic abstraction is always better than mental abstraction" (Chiodo, 2019; Voort, Klievinka, Arnabold, & Meijer, 2019). Vara conceptualizes in her novel what Franke said, "AI is impossible to disregard- it is set to transform society, the economy, and politics" (Franke, 2019). The envisioned society, underpinned by AI, not only ushers in a technologically augmented administrative apparatus but also necessitates a thorough examination of its potential implications on aspects of political power, accountability, ethics, and social dynamics.

With the technological supremacy and consolidation of resource control, the SG became the focal point of disillusionment and discontent within a faction of anti-shareholder government agents who self-identified as the Exes, those who wanted excision from the shareholding system. Most of them have suffered because of the SG and its algorithm apparatus. They reject this system that places commercial value on their consciousness, they want to opt out of being Shareholders, have their Profiles erased from the public records, and demand an autonomous land where they can live and trade with one another outside the Shareholder system (Vara, 2022). The Exes protested this techno-capitalist governance and vehemently advocated autonomy. They challenged the existing power structures and sought to reshape their collective identity and destiny. One of their protests escalated into riots following tragic incidents involving Harmonica, a human enhancement drug. Subsequently, a fire at the Shareholder Campus resulted in casualties. The Algo is expected to decide a suitable punishment for the crime. Surprisingly, the Algo response diverges from the conventional punitive measures and instead proposes a conciliatory offer: the establishment of a homeland for the Exes, referred to as the Blanklands, in exchange for ending their protests (Vara, 2022). One of the criticisms of AI and automation is that we eventually lose particularity (Chiodo, 2019), but in the fictional world of Vara AI sprang a surprise. The government conceded control of islands globally, freeing them from Shareholder governance. This policy shift was enabled by the Board's inclusion of an exit option in the Shareholder Agreement, allowing individuals to reside in the Blanklands. What follows is the mass movement of people from various parts of the world to the designated Blanklands. The Exes referred to this movement as the Exodus. The introduction of the SG and the Algo's pivotal decision to grant the Exes a homeland serves as a compelling illustration of how artificial intelligence and automation can disrupt and redefine established conceptions of citizenship, borders, and migration policies. The implementation of the algorithm represents a transformative departure from the traditional model of governance, placing data and algorithms at the forefront of decision-making processes, eclipsing the role of human politicians. This paradigm shift underscores the central role of AI in reshaping power dynamics and decision-making frameworks within society. It is essential to recognize that entrusting the judgment of criminal matters to an algorithm, predicated on the assumption that it can pre-empt future crimes, raises fundamental questions concerning the principles of legal jurisprudence and discipline. Further, the situations that need decision-making are not homogenous and may not be well defined (Newman, 1988). The AI-driven management of Social Profiles systematically stigmatized the Exes, portraying them as societal underachievers who have chosen to depart from a society underpinned by AI guidance (Noble, 2018). Tragically, whenever

a young person's body was discovered, it would be labeled as one of the "Exes". To absolve their children's honor, parents use their own Social Profiles to emphasize that their children were not traitors. They wanted everyone to believe that these young individuals hailed from respectable Shareholder families, harbored dreams of pursuing engineering, or aspired to become entrepreneurs. They likely left their homes due to external influences like brainwashing or abduction rather than of their own volition (Vara, 2022).

AI and Distributive Justice

While AI offers "colossal opportunities, it also presents threats that are difficult to predict" (Vincent, 2017). Elemen critiques the Shareholder Government with a tone of sarcasm and systematically dismantles the model's assertions of universal prosperity, well-being, and equal access to education. She astutely probes the paradoxical aspect of a considerable number of individuals opting for departure despite the ostensible advantages of the Shareholder system. Elemen's narrative highlights how the structural design of the system inherently systemically impedes the prospects of success, emphasizing that Social Capital's accumulation is inextricably tied to birth privilege rather than individual effort. This is because AI always looks at the past to derive the decisions. Hence, there is always a need for capable administrators who should be making decisions based on the inputs of AI (Milakovich, 2012). Her incisive observation reframes the narrative set by King Rao, foregrounding the structural inequities inherent in the Shareholder model. As Kitchin argues "Algorithms are not neutral, impartial expressions of knowledge, their work is not impassive and apolitical" (Kitchin, 2017). The prevalence of algorithmic prejudices within AI systems along with the exponential growth of data availability and the computational capacities of AI systems intensify the potential for social discrimination (Cataleta, 2021). The SG purported notable advancements in average life expectancy, wealth accumulation, improved education, and the ideal of equal opportunities predicated solely upon individual resolve and industriousness. Nevertheless, these proclamations proved to be elusive, with such advantages disproportionately favoring the most affluent segments of the Shareholder community. AI decisions favoring those who can afford social profiles on the internet is a point raised by Gevel and Noussair as well (Gevel & Noussair, 2013). The majority struggled with the most fundamental necessities of existence. The entrenched wealth gap between the rich and the poor had become an inherent part of the shareholding system. This widening of the rich and poor gap with the advent of AI is a real challenge (O'Neil, 2016). While the most prominent shareholders enjoyed a life of luxury in comfortable homes in cosmopolitan cities and nearby, indulging in extravagant meals and designer produce, the least fortunate were trapped in the global south, in places like Myanmar, Honduras, and the Congo. Technology always makes a distinction between the people who can afford it and those who cannot (Mackellar, 2019). They toiled on manufacturing campuses, enduring sixteen-hour workdays, surviving on meager meals and cola, and slept in monitored dormitories where the lights were strictly regulated, providing only seven hours of rest each night. Their children, who attended shareholder vocational schools, had limited visitation rights, it was only one day each week when their parents were not required to work. Furthermore, unless an individual had generated and transacted valuable intellectual property, the most viable avenue for shareholders, especially if they possessed good looks and charisma, was to establish a career as an influencer. Otherwise, they were left to attend to the needs of those who had already

achieved success - taking care of their children, cleaning their homes, tending to their gardens, or providing pedicure services. This situation resembled historical systems like the ancient regime, slavery, or apartheid, but this time, it was the algorithm in control, and who could challenge an all-knowing algorithm? Such an endeavor would be seen as exceedingly arrogant (Vara, 2022). In an interview, Luís Moniz Pereira opined that with the coming of AI, our society will evolve into a hierarchical structure consisting of owners, administrators, and the exploited (Pereira, 2019). Whether occupying the echelons of the most opulent corporate executives or the ranks of the humblest laborers, the predominant channel for communication materialized through the conduit of the Social Profile. Thus, Shareholders, irrespective of their socio-economic strata, bore the same set of mandates, entailing obligatory consumption of products fashioned by Shareholders, regardless of their cost, and steadfast commitment to the Shareholder Agreement, irrespective of its attendant disbursements. These imposed obligations, coupled with an information deficit, directed Shareholders toward decisions that were not aligned with their individual optimal welfare.

Elemen shows the footage to Athena exposing the dehumanizing repercussions of AI-driven systems in techno-capitalist Shareholder Government. This footage shows a poignant interaction between a Ghanaian mother and a bureaucrat, revolving around the computation of her children's social capital, as adjudicated by the AI system. In this emotionally charged exchange, the mother persistently interjects, ardently advocating for the intellectual acumen and potential of her child. This incident exemplifies the unsettling reality in which personal worth and potential have been distilled into algorithmically determined metrics, effectively eroding the significance of individual qualities and aspirations. Gill makes the distinction between AI and human sense-making which is the reason for the stated conflict, he states that "human way of dealing with situations depends upon repair-making and not on doing statistical analysis of precedents" (Gill, 2019). In the crucible of this techno-capitalist society, an individual's value is summarily reduced to numerical indices, such as social capital, wielding profound influence over their opportunities and societal treatment. The narrative skillfully underscores the gaping chasm between the system's quantifiable metrics and the nuanced and diverse attributes that define human capabilities. The lack of emotions, values, and acquaintance with the real world may make AI decisions vulnerable (Blois, 1980). Another footage underscores the perils of opacity and the absence of agency within AI-controlled environments. This opacity can eventually undermine privacy, take discriminatory actions against certain social groups, and dilute accountability (Hayes, Poel, & Steen, 2020). This scene unfolds within one of Coconut's sprawling mega-campuses, wherein a procession of dark-skinned individuals, uniformly clad in masks and nondescript beige jumpsuits, emerges from a building. These denizens of the system are rendered faceless entities, coerced into conformity with standardized appearances and rigid regulations. Notably, such activities remain shrouded in secrecy, cloaked by stringent agreements that preclude any form of recording or dissemination of events transpiring within the hallowed confines of these campuses. This secrecy raises questions about the accountability and transparency of institutions under AI. These scenes underline the fact that progress in AI raises the stakes of ethical issues associated with its application. This beckons us to confront the intersection of sociotechnical systems and distributive justice while unearthing the ramifications of AI's encroachment into the very fabric of our society. Examining the role of algorithms and automated decision-making and the data needed to inform algorithms may shed light on what underlies society's goals and policies in the first place, issues that have

begun receiving attention in the literature on algorithms, fairness, and social welfare. In *Toward a Theory of Justice for Artificial Intelligence* Iason Gabriel, drawing upon Rawl's theory of justice, explores the intersection of AI and distributive justice by considering the role that sociotechnical systems play. He examines issues including basic liberties and equality of opportunity to suggest that considerations of distributive justice may now need to engage with the particularities of AI as a technological system that could lead to some unexpected consequences.

Throughout the narrative of the novel, individual stories emerge as testimonials to the adverse consequences of AI's pervasive presence in society. Arno's narrative illustrates the impact of the mandatory Identity Act on his life and his family. He faced the obligation to register his newborn daughter on the Social system. He harbored strong reservations, apprehensive that such registration would irrevocably alter his daughter's identity. This experience precipitates a questioning of societal norms and prompted contemplation of a return to a more natural, disconnected existence, akin to the Exes who had severed their ties with the digital realm. Feeling out of place, Arno turned to drug production as an escape, even though he did not have any personal inclination towards substance use. A heated altercation with his spouse escalated to a point where he brandished an unloaded firearm, causing the Algo to be alerted due to the detection of specific high-risk keywords. This, in turn, summoned the police to their location. Arno managed to evade capture, but this violent episode led to his disappearance and marred their lives forever. Elemen, originally named Luna, was born on the cusp of the Shareholder Generation, a cohort of children whose educational journey commenced concurrently with the establishment of the Board. The Board's implementation of a standardized global curriculum prompted Luna's parents, Sofia and Ben, to partake in a protest against this decision. Tragically, this act of dissent resulted in their dismissal from their teaching positions at Greenfield High School, causing a marked decline in the family's Social Capital. The family, scuffling with financial constraints, relocated to an economically disadvantaged neighborhood. Luna, faced with the burden of supporting her family, embarked on the endeavor of selling eggs and honeycomb online. This responsibility led to a sense of resentment towards her parents, who appeared engrossed in their ideological debates while seemingly neglecting the practicalities of survival. Further tribulations befell Luna's family. Her father Ben succumbed to an overdose of pain medication, his life ending in tragedy. In the aftermath of this loss, Sofia returned to El Salvador, a decision that Luna interpreted as a form of self-imposed exile or even suicide. It was only upon sifting through her parents' belongings that Luna stumbled upon her father's emotional suicide note, an epiphany that forced her to reckon with the demise of Luna Maria North, her former self. This transformative juncture marked the emergence of Elemen, the spirited advocate who led the protests against the AI-driven SG. These individual experiences serve as cautionary tales questioning the boundaries of AI control, exploring the human-AI relationship characterized by constant negotiation between human values and desires and the pervasive influence of AI.

AI and Human Evolution

The Immortal King Rao also offers a critical examination of specific facets of transhumanism, a movement that envisions a future characterized by profound alteration of the human condition through AI and genetic engineering. Transhumanists often adhere to the belief in genetic

essentialism and advocate for eugenic practices to achieve radical human enhancements (Sutton, 2015). The titular King Rao embodies the ideals of transhumanism who trusts the potential of technology to foment a revolutionary transformation in the world. Like King Rao there exists political movements and parties in the Western countries that push transhumanism (Benedikter & Siepmann, 2016). Rao fervently believed that "the human brain is capable of so much...It's a miracle..." (Vara, 2022). He envisioned connecting the human brain with the Internet, a notion that impelled him to conceptualize Harmonica, a groundbreaking device to facilitate human communication over the Internet merely through cognitive processes, a feat he regarded as "humanity's only chance of having a future...to preserve some record of who we were," (Vara, 2022). There are arguments in favor of the interconnectedness of the brain and machine, stating that this will help human beings overcome the limitations of the brain. This is one of the three motors of transhumanism - genetics, nanotechnology, and robotics (Hefner, 2009). Harmonica constituted a strand of genetic code that would be delivered to the brain through the bloodstream. This genetic code bore explicit instructions for the human body to generate a minute surplus of carbon and silicon, utilizing these elements to manufacture billions of minuscule bio-transistors. Once activated, these transistors possessed the remarkable ability to transmute the electrochemical signals of neurons into digital data, subsequently processing and storing this digitized information. Furthermore, they could harness a radio-like signal to transfer this data via Wi-Fi (Vara, 2022). These interconnections will become a global brain, a large interplanetary brain, or even an intergalactic brain according to Cordeiro (Cordeiro, 2014). Additionally, Harmonica held the potential to restore the ability to communicate for individuals who had lost this capacity. This groundbreaking technology was slated for human testing, marking the initial step to ascertain whether the human brain could safely assimilate the product. However, this phase of testing resulted in the tragic demise of sixty-four volunteer subjects. While Rao expressed remorse over this outcome, he regarded it not as a moral quandary but rather as an engineering challenge, a deficiency in the development process, deducing that "the brain's plasticity—its ability to change and, in turn, fully absorb a modification product—decreases with age" (Vara, 2022). King Rao was informed of the alarming perils associated with Harmonica, but he proceeded with the testing phase despite this forewarning. Furthermore, he vehemently rejected the notion that he or any other individuals with Coconut, the technological powerhouse, bore any responsibility for the unfortunate deaths that ensued. This casts a shadow of moral ambiguity over King Rao's character, raising imminent questions about scientific hubris, ethical accountability, and the price of relentless innovation where boundaries between technological aspiration and ethical responsibility blur. John Danaher argues that AI robots will lead to the suppression of one's moral agency and increase the expression of moral passivity (Danaher, 2019). The setback of Harmonica did not deter King Rao from his pursuit of technological innovation. Undaunted by the previous failures, he embarked on a bold venture to create a revised version of Harmonica, employing AI to fine-tune the absorption mechanism. The objective was to ensure that the device would be fully activated solely within brains possessing the requisite plasticity to accommodate it, thereby preventing harm to other individuals. The consequence of such a system on society remains uncertain (Mackellar, 2019).

In his quest for the youngest test subject, King Rao arrived at a remarkable solution - utilizing an embryo. Rao and his wife had frozen their embryos. He found a surrogate to help give birth to his

embryo. His experiment crystallized into Athena, King Rao's daughter whose existence he had kept a secret from the world. This is against the stated Transhumanist Declaration that allows individual widespread choice about how and what they want to improve (Sutton, 2015). Athena, now in possession of the device, named it her Clarinet. She reflected, "My Clarinet expanded the world for me. It also made me realize how little of it I had experienced," (Vara, 2022) recognizing the profound transformative capacity of the device. Through her Clarinet, Athena seamlessly connected with the world, acquiring information on a myriad of subjects, delving into an endless cascade of questions and answers like in a brain-net (Jiang, et al., 2019). She was perpetually seeking knowledge until she confronted inquiries for which there were no answers. The Clarinet serves as Athena's digital-looking glass, revealing unsettling information about individuals, including her father. Yet, this interconnectedness was contingent on her being linked to the internet. Her initial disconnection from the internet and her Clarinet had a tumultuous impact on her. She mused, "It felt like what I imagine it would be like to go blind or deaf. Losing a sense that had become so elemental left me feeling exposed" (Vara, 2022). The novel blurs the boundaries separating human and machine, online and offline activities, the physical and virtual realms, the natural and artificial, and reality and virtuality. It ventures into the realm of neuronal interface systems, forging a direct link between the human brain, computers, and AI facilitating an unmediated interaction between the mind and the boundless expanse of cyberspace, thereby transcending traditional boundaries, and manifesting a tangible reality.

King Rao's quest for knowledge enhancement is surpassed by a fervent desire to bestow a timeless gift upon his daughter - the preservation of his thoughts and memories to impart his wisdom and guidance to her across the sands of time. This technology is called mind cloning and the transfer of consciousness (Huberman, 2017). The preservation of his thoughts and memories reflects King Rao's Promethean desire to become immortal, it is called digital immortality (Sutton, 2015). Ageing and involuntary death are considered undesirable aspects that transhumanism tries to ameliorate (Hefner, 2009). Rao's mind cloning prompts an audacious incursion into Athena's consciousness. The consequence is an eerie episode in Athena's life, wherein her consciousness becomes a battleground for an onslaught of foreign memories and images, alien to her own experiences. She grapples with an unsettling detachment from her sense of self, attempting to regain control in the face of this relentless tide, only to find herself overwhelmed by the deluge of memories. How these episodes unfold, triggered by her father's unwelcome intrusion into her consciousness, is depicted as both frightening and disorienting. The transhumanist project of Athena creates a dystopia similar to the one described in Brave New World (Sutton, 2015). The vivid descriptions of the memories flooding her mind convey a visceral sense of disorientation and chaos. Athena's condition deteriorates progressively, with the intrusive memories growing increasingly terrifying. The confluence of emotions and thoughts culminates in an internal struggle, as she begins to question her father's intent behind this invasion of her mind. She ponders, "He had admitted to wanting to live on; he had professed to want to be available to me even after his death; he had made that mysterious comment about a gift. Had he planned this invasion of my selfhood, seeing my mind as a receptacle for his ownsciousness?" (Vara, 2022). These internal conflicts fuel a dilemma for Athena, as she is confronted with the choice of sacrificing herself to become the vessel for her father's consciousness or sacrificing him to preserve her own identity (Vara, 2022). The result of the Athena project is against the

transhumanist goal of erasing selective memory and promoting mental well-being (Benedikter & Siepmann, 2016).

Athena's exploration through her Clarinet unravels a digital labyrinth of internet rumors and speculations, where the enigmatic figure of King Rao looms large. These virtual murmurs suggest that King Rao, the visionary inventor, has achieved a feat that borders on the miraculous - eluding the clutches of mortality itself. In the collective imagination, he becomes a symbol of potential immortality, an entity believed to persist even in the face of an Earth transformed into a scorching Hothouse, with humanity dwindling to its penultimate representative. The notion of King Rao's supposed immortality instills a profound sense of fear and awe among the populace. They perceive him as an enduring sentinel, a beacon of hope amid the apocalyptic backdrop. However, the truth behind this perception remains shrouded in ambiguity. While King Rao indeed used rejuvenation technologies that most people can't afford—designer supplements, gene reprogramming, young-blood transfusions—these were meant only to extend his life, not prolong it forever (Fukuyama, 2004). He was past hundred years old. King Rao's endeavors are not rooted in the reckless pursuit of eternal life but rather in the extension of his existence beyond traditional boundaries. The longevity these technologies offer is a far cry from true immortality, even though they significantly stretch the limits of human lifespans (Gevel & Noussair, 2013).

The novel *The Immortal King Rao* serves as a prescient harbinger of the posthuman condition, a future in which humanity undergoes a profound transformation, evolving into a hybrid entity that melds human consciousness with advanced artificial intelligence and machinery (MacKellar, 2019). This vision, while currently a work of speculative fiction, echoes a very real technological endeavor that is currently unfolding within the realm of neuroscience and biotechnology. Neuralink, a pioneering company founded by the visionary entrepreneur and billionaire Elon Musk in 2016, stands at the forefront of this technological frontier. Its primary goal is to develop and commercialize implantable brain–computer interfaces (BCIs) sophisticated devices designed to establish direct connections between the human brain and computers or other digital devices. The implications of this technology are nothing short of revolutionary, encompassing the ability for individuals to interact with computers, smartphones, and various digital gadgets through mere thought. Moreover, Neuralink's endeavors extend to the realm of assisting individuals with neurological conditions, offering the promise of improving their quality of life through innovative neurotechnological solutions. Neuralink's BMI technology involves implanting tiny electrodes into the brain. These electrodes function as neural interfaces and serve the dual purpose of recording and stimulating neural activity, thus creating a dynamic bridge between human cognition and advanced computing. The data captured by these electrodes is relayed to a compact device known as the "Link," strategically implanted behind the user's ear. The Link facilitates seamless wireless communication with external devices, enabling the translation of neural data into actionable commands. This data-driven synergy is further harnessed by employing machine learning algorithms and other artificial intelligence agents to extract meaningful insights and enable precise control. Neuralink has made significant progress in developing its technology and has already conducted successful animal tests. In July 2019, Neuralink demonstrated a working prototype of its technology that allowed a pig named Gertrude to control a computer cursor with her brain (Becher, 2023). Neuralink's vision holds immense potential for augmenting human cognitive and physical abilities, thus building a symbiotic relationship between humans and

artificial intelligence. However, this technology raises ethical and safety concerns that are paramount in this domain. The company acknowledges the necessity for rigorous regulation and vigilant oversight, recognizing that the fusion of humanity with artificial intelligence demands a responsible and conscientious approach. As the pages of *The Immortal King Rao* and the work of Neuralink converge in their exploration of the posthuman condition, they beckon us to navigate the ethical and technological challenges that accompany such transformative pursuits, ultimately shaping the course of our shared future.

AI and Environmental Degradation

The Immortal King Rao emphasizes the impact of AI systems in the broader ecological context portraying environmental degradation and climate change. It paints a stark picture of a climate crisis that transcends the immediate ramifications of AI and technology. The novel introduces the concept of a Hothouse Earth, an ominous scenario characterized by an irreversible chain of climatic events that ultimately imperil the survival of the human species. Within this grim depiction, the world would witness a cataclysmic cascade of environmental consequences, including desertification, the rapid melting of polar ice, widespread submersion of land, soaring temperatures, devastating wildfires, prolonged droughts, and catastrophic floods. These environmental upheavals will break out into new pandemics, potentially culminating in the extinction of humanity. Hothouse Earth is portrayed as an apocalyptic condition that defies mitigation efforts, emphasizing the urgency of addressing environmental challenges to secure a sustainable future (Steffen et al., 2018). The presence of dense, oily brown smog hanging low in the air and obscured buildings of one of the mega campuses of Coconut hints at environmental degradation caused by the rapid growth of AI and allied technology. It is imperative to recognize that AI models, intense learning models, often demand substantial computational power to operate effectively. AI operations are supported by large data centres that consume significant amounts of energy, some of which is deareved from fossil fuels-notorious contributors to carbon emissions. Furthermore, the establishment, maintenance, and cooling of AI infrastructure, including these data centers, necessitate considerable energy and resources. The extensive volumes of data that AI systems require can also intensify energy consumption and its concomitant environmental impact, particularly if data storage practices lack efficiency. In essence, AI, despite its many virtues, also constitutes a noteworthy source of carbon emissions. In putting together, the ecological perils associated with AI and the overarching crisis of climate change, *The Immortal King Rao* compels readers to reflect on the ecological footprint of technological advancement and the imperative of fostering sustainable practices to safeguard our collective future. Vara's *The Immortal King Rao* resonates with the work of Kate Crawford and Vladan Joler, who, in 2018, crafted an award-winning visual map and essay entitled "Anatomy of an AI System". Their groundbreaking work meticulously illustrated the web of human labor, data utilization, and resource consumption that characterizes the entire life cycle of AI devices, from their initial manufacturing stages to their eventual disposal. What this endeavor underscored is that at each juncture of this life cycle AI, including modern technology, is inexorably intertwined with not only the exploitation of human labor but also the depletion of environmental resources.

Conclusion

In this paper on *The Immortal King Rao*, we analyzed and discussed the transformative potential of AI and the formidable challenges posed by AI, an ever-evolving technology, as depicted in the novel. As we examined its role in geopolitical transformation, distributive justice, human evolution, and environmental degradation, we witnessed the dynamic interplay between technology and humanity. The narrative unfolds as a testament to AI's profound influence on the geopolitical landscape through King Rao's Shareholder government which challenges traditional power structures and obliterates the traditional concept of governance and geographical boundaries. Simultaneously, the discussion of distributive justice highlights AI's dual nature, offering opportunities for empowerment and, at the same time, perpetuating marginalization. Everyone cannot afford the cost of accessing technology, therefore it overturns the perception that AI gives a level playing field. The novel underscores the blurring of boundaries between human consciousness and artificial intelligence, a frontier that reshapes the very essence of humanity. How the emotional quotient of human beings responds to the plethora of information about other's lives can be understood from Athena's experience. Moreover, AI's environmental impact, portrayed through the apocalyptic Hothouse Earth, serves as a stark reminder of the ecological consequences that are compounded by our technological advances. It becomes evident that the transformative potential of AI is inseparable from the ethical considerations, and environmental hazards that accompany it. As we continue to advance in AI technology, it is our collective responsibility to harness the transformative power of AI wisely. The AI should assist humans in decision-making and not become decision-makers themselves. It is important to ensure that the evolution of technology aligns with the values and well-being of humanity**.**

Declaration of Conflicts of Interests

The author(s) declared no potential conflicts of interest.

References

Araujo, T., Helberger, N., Kruikemeier, S., & de Vreese, C. (2020). In AI we trust Perceptions about automated decision-making by artificial intelligence. *AI & Society*, 611–623.

Asimov, I. (1950). *I, Robot*. New York: Gnome Press.

Atwood, M. (2003). *Oryx and Crake*. Toronto, Canada: Doubleday.

Bas¸tug, E., Bennis, M., Médard, M., & Debbah, M. (2017). Toward Interconnected Virtual Reality: Opportunities, Challenges, and Enablers. *IEEE Communications Magazine*, 55(6), 110–117.

Becher, B. (2023, September 23). *What Is Neuralink? What We Know So Far*. Retrieved from https://builtin.com/hardware/what-is-neuralink

Benedikter, R., & Siepmann, K. (2016). Transhumanism. A New Global Political Trend. *Challenge*, 59(1), 47–59.

Blois, M. S. (1980). Clinical Judgment and Computers. *New England Journal of Medicine*, 192-197.

Boden, M. (1990). 'The Social Impact of Artificial Intelligence'. In R. K. (ed.), *The Age of Intelligent Machines* (pp. 450-453). Cambridge: MIT Press.

Boerman, S., Kruikemeier, S., & J. Z, F. (2017). Online behavioral advertising: a literature review and research agenda. J Advert. *Journal of Advertising* Vol 46, 363-376.

Cataleta, M. S. (2021). *Humane Artificial Intelligence: The Fragility of Human Rights Facing AI*. hal-03289002.

Chiang, T. (2010). *The Lifecycle of Software Objects*. Burton, Michigan, USA: Subterranean Press.

Chiodo, S. (2019). The greatest epistemological externalization: reflecting on the puzzling direction we are heading to through algorithmic automatization. *AI & Society*.

Ciaccio, E. J. (2023). Use of artificial intelligence in scientific paper writing. *Informatics in Medicine Unlocked* Volume 41.

Cordeiro, J. (2014). The Boundaries of the Human. *World Futures Review*, 6(3), 231–239.

Crawford, K., & Joler, V. (2018, September 7). *Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources*. Retrieved from AI Now Institute and Share Lab: https://anatomyof.ai/

Danaher, J. (2019). The rise of robots and the crisis of moral patiency. *AI & Society* 34(1), 129–136 .

Danish, M. S. (2023). AI in Energy Overcoming Unforeseen Obstacles. AI, 4, 406–425.

Dick, P. K. (1968). *Do Androids Dream of Electric Sheep?* Garden City, New York: Doubleday.

Ekbia, H. R. (2010). Fifty years of research in artificial intelligence. *Annual Review of Information Science and Technology*, 44(1), 201–242.

Frankie, U. (2019). Harnessing artificial intelligence. https://ecfr.eu/publication/harnessing_artificial_intelligence/: European Council on Foreign Relations.

Fukuyama, F. (2004). Transhumanism. *Foreign Policy*, (144), 42 - 43.

Gable, A., & Page, C. (1980). The use of Artificial Intelligence techniques in Computer-Assisted Instruction: an overview. *International Journal of Man-Machine Studies*, 12(3), 259–282.

Gevel, A., & Noussair, C. (2013). The Nexus between Artificial Intelligence and Economics. *CentER Discussion Paper Series* No. 2012-087.

Gibson, W. (1984). *Neuromancer*. New York: Ace Books.

Gill, K. S. (2019). Book review of Artificial intelligence: against humanity's surrender to computers. *AI & SOCIETY*.

Hayes, P., Poel, I., & Steen, M. (2020). Algorithms and values in justice and security. *AI & SOCIETY*.

Hefner, P. (2009). The Animal that Aspires to be an Angel. The Challenge of Transhumanism. *Dialog*, 48(2), 158–167.

Huberman, J. (2017). Immortality transformed: mind cloning, transhumanism, and the quest for digital immortality. *Mortality*, 23(1), 50–64.

Ishiguro, K. (2021). *Klara and the Sun*. New York, USA: Knopf.

Jiang, L., Stocco, A., Losey, D., Abernethy, J., Prat, C., & Rao, R. (2019). BrainNet: A Multi-Person Brain-to-Brain Interface for Direct Collaboration Between Brains. *Science Republic* 9, 6115.

Jones, K. S. (1991). The role of artificial intelligence in information retrieval. *Journal of the American Society for Information Scienc*e, 42(8), 558–565.

Khalil, O. E. (1993). Artificial Decision-Making and Artificial Ethics: A Management Concern. *Journal of Business Ethics*, 12(4), 313–321.

Kitchin, R. (2017). Thinking critically about and researching algorithms. *Information Communication & Society,* 1-15.

Kornecki, A. (1994). AI for air traffic. *IEEE Potentials*, 13(3), 11–14.

Kumar, R. (2023). A research paper on AI for traffic management. 10.13140/RG.2.2.21119.69287.

LaChat, M. (1986). 'Artificial Intelligence and Ethics: An Exercise in the Moral Imagination'. *The AI Magazine* 7, 70-79.

Leckie, A. (2013). *Ancillary Justice*. New York, USA: Orbit.

Mackellar, C. (2019). *Cyborg Mind: What Brain-Computer and Mind-Cyberspace Interfaces Mean for Cyberneuroethics*. New York: Berghahn Books.

McCorduck, P. (1979). *Machines Who Think*. San Francisco: W.H. Freeman.

Meissner, G. (2019). Artificial intelligence: consciousness and conscience. *AI & SOCIETY*.

Milakovich, M. E. (2012). Anticipatory government: Integrating big data for smaller government. *Internet, politics, policy 2012: Big data, big challenges.*

Newman, N. (1988). Professionals and Expert Systems: A Meeting of Minds? Computer and Society 18, 351-354.

Noble, S. U. (2018). *Algorithms of oppression: how search engines reinforce racism*. New York: New York University Press.

O'Leary, D., & O'Keefe, R. (1997). The impact of artificial intelligence in accounting work: Expert systems use in auditing and tax. *AI & Society*, 11(1-2), 36–47.

O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. Crown.

Pereira, L. M. (2019). A machine is cheaper than a human for the same task. *AI & SOCIETY*, 12-14.

Richter, M., & Mammen, S. (2011). Remarks on the future of AI: machines and communication. *Annals of Mathematics and Artificial Intelligence*, 61(1), 41–46.

Sanders, D., & Gegov, A. (2013). AI tools for use in assembly automation and some examples of recent applications. *Assembly Automation*, 33(2), 184–194.

Sharma, D. S. (2022, August 22). AI plays a significant role in a country's national security. (D. N. Jeevanandam, Interviewer)

Shusterman, N. (2016). *Scythe*. New York, USA: Simon & Schuster.

Sutton, A. (2015). Transhumanism: A New Kind of Promethean Hubris. *The New Bioethics*, 21(2), 117–127.

Sweijs, T. (2018). *Artificial Intelligence and Its Future Impact on Security*. Hague Centre for Strategic Studies.

Vara, V. (2022). *The Immortal King Rao*. Kindle Edition: Fourth Estate India.

Vincent, J. (2017, Septemebr 04). Putin says the nation that leads in AI 'will be the ruler of the world'. Retrieved from The Verge: https://www.theverge.com/2017/9/4/16251226/russia-ai-putin-rule-the-world

Voort, H., Klievinka, A., Arnabold, M., & Meijer, A. (2019). Rationality and politics of algorithms. Will the promise of big data survive the dynamics of public decision-making? *Government Information Quarterly* 36, 27–38.

Wilson, D. H. (2011). *Robopocalypse*. New York, USA: Doubleday.

Dr. Ruchi Singh is an Assistant Professor of English at the University of Lucknow. Her specialization is Indian Diaspora Studies and Dalit Studies. Her areas of research interest include Translation Studies and Indian Literature. She has co-authored two books, 'CBSE I Perspectives: Class IX and X, Manual for Teachers,' and 'Professional Communication' (Pearson Education, New Delhi). She is also a reviewer for *Women's Link Journal*, Department of English, Jamia Millia Islamia, New Delhi.

Dr. Gibu Sabu M is an Assistant Professor in the fields of Linguistics and English Literature, currently affiliated with Amity University Uttar Pradesh. Before joining Amity University, he served as a Research Fellow at the National Council of Educational Research and Training (NCERT). He has co-authored two books 'CBSE I Perspectives: Class IX and X, Manual for Teachers,' and 'Professional Communication' (Pearson Education, New Delhi). Dr. Gibu has also co-edited books and contributed chapters in various publications, focusing on English language teaching and Professional communication