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REVIEW

Artificial intelligence as a tool for data, economic and political hegemony: releasing the djinn

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ABSTRACT: Artificial intelligence, while presenting itself as a novelty in the fields of education, science and the business industry, is likely being used as a hegemonic tool for economic and political control. Concerns about privacy ethics, class division and the specter of AI-incited biowarfare controlled by supremacist-minded entities that benefit from the datafication of individuals for economic profit and the attainment of politicized control-seeking objectives are the axial arguments of this position paper. As a result, this review makes a case that AI is being used as a tool of hegemony by presenting an analytical framework derived from the 'less mainstream' varied corpus of literature published between 1984 and 2024. Furthermore, while the literature also reveals attempts to monitor misuse of AI, to date there have been no solutions offered concerning privacy and surveillance, alternatives to the potential loss of jobs through automated AI or the menace of AI-operated biological warfare already being tested in war-torn parts of the world. Resolving the existing hegemonic challenges is of paramount importance and must be properly addressed in order not to be met with an existential crisis threatening the continuity of humanity.

KEY WORDS: Artificial intelligence · Hegemony · Data hegemony · Class control · Biowarfare · Cyborgs · Lethal autonomous weapons · LAWS · Socio-economic inequity

1. INTRODUCTION

The 21st century has been hailed as one with developments that have magically materialized at breakneck speed, specifically with respect to artificial intelligence (henceforth AI). With AI oscillating with varied versatility across a broad spectrum of domains, from nano-operated technology to surgical interventions all the way to marketing promotion strategies, the fast-paced world of development and modernity appears seamlessly boundless and exciting. Consequently, using tools such as AI, the Western world has seemingly gone beyond the bounds of modernity and development (Gamage 2016) strengthening its foothold both technologically, economically and politically in the form of AI-incited hegemonic globalization; namely, the re-organization, extraction and exploitation of resources and capital labor under the colored contexts facilitated by the trade of democratic ideals, technology and cross border mobility of goods, services and other ideologies. As such, Stoica & Chaintreau (2019) argue that with the aid of AI-powered algorithms, significant profits are made, citing a 35% increase in sales by Amazon, Netflix's 80% increase in streamed entertainment hours, in addition to Match.com's generated revenues, which increased by 50% through AI-powered systems. As such, and under the umbrella of 'capitalism' and 'innovation', where the idea of trading and earning profits is celebrated as being something constructive and efficient (Leef 2021), Marsella (2005) further contends that this 'capitalistic' trade beyond borders or 'globalization' cannot be termed anything other than hegemonic due to control exerted by powerful individuals or national or corporate entities whose

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policy-making agendas likely promote a singular cultural block; as such, inequalities in power, wealth, technological facilities and cultural dominance surface as an alternative form of imperialism (Gamage 2016). In light of this, Graham (2019) posits that while this unprecedented race among pioneer nations pledging to further frontier technologies (such as the USA and China) has been launched, other nations such as Third World or Newly Independent Countries (NIC) seem disparately left behind, thus disquietingly deepening the existing political, economic and social rifts of these nations (Goldsmith 2002).

Meanwhile, as an increasingly influential elite, deeply invested in high tech companies (Varoufakis 2019), continue to wield power derived from the datafication of people's personal private lives, AI becomes a major hegemonic tool yielding global inequities through privacy infringements and global economic inequities, as well as political hegemony. As such, an integral question is raised: How does AI serve as a tool that contributes to hegemonic control — economically and politically? This review tackles the axial points of economic and political hegemonic influence using AI as a tool to maintain such control locally and globally.

2. THEORETICAL OVERVIEW

2.1. General overview

For starters, AI's contributions in versatile domains have been diverse and cannot be ignored with their achievements occurring at an unprecedented pace. For example, in the medical field, AI has received a substantial amount of praise due to its myriad benefits ranging from diagnosing early onsets of disease such as acute leukemia, breast and pancreatic cancer (Hussein et al. 2020) to undertaking delicate surgeries with medical accuracy that supersedes that of physicians, enhancing communication between patients and their doctors, as well as transcribing documents and even writing prescriptions (Basu et al. 2020). In terms of mental health, AI tools have also advanced significantly, thus enabling the early detection of mental health issues among students by analyzing and detecting subtle signs of emotional stress and turmoil using their communication patterns (Alqahtani et al. 2023). In addition, in remote, potentially poverty-stricken areas with very little know-how or education, AI tools can be used to train medical service workers to help with vaccinations and paramedic and first aid intervention. In terms of marketing,

AI-enhanced algorithms have led to enhanced sales and an increased market share, rendering more revenue (Stoica & Chaintreau 2019). Moreover, applications of AI in education (AIED) have also been versatile, ranging from intelligent adaptive tutoring systems that accommodate students' varying learning styles, capacities and learning aptitudes to teaching robots, and to learning analytics dashboards (Ouyang & Jiao 2021). In addition, teacher support systems have been developed for grading and assessment in the form of automated essay grading (AEG) and algorithms whose purpose is to evaluate short answer response questions on exams, to streamline curricula and to modify program objectives in line with labor market demands (Alqahtani et al. 2023). Furthermore, AI also identifies possible deficiencies in lectures and educational material introduced to students (Viktorivna et al. 2022). Administrative uses of AI applications also serve to monitor struggling students as well as to provide additional support (Dakakni & Safa 2023). Moreover, other beneficial uses for AI include its ability to predict potential areas of deforestation and counteract this with more green friendly strategies (Hussein et al. 2020) to promote a healthier environment.

Consequently, as technological advancements go in tandem with industrial competitiveness and profitability, countries enjoying such developments become major players in the international arena through geopolitical supremacy (Blancato 2024). To date, the USA and China are the 2 leading countries amassing the plethora of AI-based benefits, leaving the world grappling behind. As such, this raises significant alarms due to the likely hegemonic impact of AI through privacy infringements, economic disequilibrium, and political hegemonic presence.

2.2. Privacy infringements, racial profiling and mass surveillance

Privacy infringements are among the most significant concerns with respect to AI due to the repercussions that they entail. Large-scale collection of data occurs through the daily use of applications such as Google, Chat GPT 4, Gemini (previously Bard), Assistant Poe, Microsoft Cortana, Dall-E2, Perplexity among many other AI apps (Khowaja et al. 2023) where personal information is amalgamated and gathered through users' use of such applications. This raises moral concerns relevant to privacy and mass surveillance, along with dissipating autonomous interactions within the digital sphere (Zuboff

2019). Moreover, although users consent to having their personal information collected as they download various AI applications, the use of such data which may likely allow for their respective identification has not been permitted and is in fact deemed an ethical violation of privacy (Khowaja et al. 2023). Other privacy infringements occur in the form of copyrighted material that is openly used on such AI applications without compensation. Moreover, although there has been an effort to instigate legislative processes for AI-based applications, they are either slowly executed or may require years before any significant effects are rendered.

Subsequently, as this information is collected, a monopolistic hold through cloud computing providers (Blancato 2024) in the USA increases. Cloud computing is defined as a platform service for storing, managing and processing data through a remote server, allowing for massive economies of scale as consumers have a large access to products in a facilitated 'pay-as-you-go' manner. Meanwhile, under the Clarifying Lawful Overseas Use of Data (Cloud) Act (Zhang 2021), the US federal law holds complete proprietorship over information from cloud computing servers as it requires American service providers as well as all cloud companies to transfer all data in their possession without regard to where this data was physically collected or to the respective legal authorities present. Since 92% of data amassed from Western countries end up in US servers (Propp 2019), this leaves EU cloud providers with a very small market share, giving the upper hegemonic hand to American-owned companies such as Amazon, Microsoft, Google and IBM (Blancato 2024). As such, with the USA and China in the lead due to cloud computing technology, this raises real ethical questions concerning data sovereignty and privacy at the global level.

Meanwhile, Montjoye et al. (2017) argue that this AI-driven metadata, which is data that has been collected from users' activities for years, results in the construction of profiles that are highly specific of their users, rendering their identification by algorithms possible. Leavy et al. (2020) posit that the likely objectivity of this AI-sourced data is an impossibility as information that is being fed into algorithms and large language models may lead to social injustices, inequalities and discriminatory attitudes. In turn, these AI-augmented inequalities likely exacerbate already existing social and racial inequalities. This is particularly true in situations where surveillance and predictive policing systems, i.e. automated decision-making software aiming to control criminal behavior that make predictions about who and where the next po-

tential crime is likely to occur, seemingly target certain racially inclined zones or darker skinned people (Thind 2023). As such, AI becomes a tool potentially targeting ethnic minorities and darker skinned individuals and accentuating already existing racial profiling. Moreover, as AI applications reinforce the already existing social, racial and ethnic disparities, they equally impose negative externalities on the healthcare system. To illustrate, in countering institutionalized racism imposed by hospitals, Kukutai & Taylor (2016) contend that health data collected and stored in AI systems impose 'eligibility criteria' on the Maoui people, hindering their ability to receive medical intervention particularly in the case of rheumatic fever and throat infections, 2 common afflictions that plague over 47% of Maoui children. Meanwhile, Hoffman & Podgurski (2020) also criticize AI-based medical systems that routinely continue to filter out racial and ethnic minorities in high-risk care management programs and instead 'reserve' these beneficial health services to people of Caucasian origin. Such continued practices not only represent a form of slow ethnic cleansing, but they are also indicative of a continuation of a supremacist cultural mindset.

While corrective measures to circumvent AI privacy issues and racial profiling by calibrating datasets and anonymizing data collection across different races and ethnic groups have been attempted through de-identification and pseudonymization of their users, these efforts have been inefficient because metadata derived from phones, browsers, smart watches/applications, smart cities among other AI-based technologies for years on end are very high dimensional; that is, these devices generate hundreds of thousands of pieces of information about the users, making it impossible to deconstruct users' identities. As such, privacy breaches as well as racial profiling are highly probable (Montjoye et al. 2017). Consequently, Thind (2023) argues that AI likely acts as a hegemonic tool as it bolsters white supremacist ideals, defined as political, economic and cultural values in a system where whites are in control of power and material resources, while downgrading other ethnicities through racial profiling very much likened to a digital caste system.

2.3. Economic disequilibrium

Yet another channel whereby artificial intelligence likely reinforces supremacist control is the potential incitement of economic disequilibrium, both through the lens of employment and economics. With the con-

tinued development of robotics and specialized machines referred to as automated AI (Acemoglu & Restrepo 2019), repetitive jobs which require very few skills and critical reasoning are being replaced to promote more 'efficiency' through cost-cutting measures (Tao et al. 2019). In fact, jobs in areas of transportation, healthcare, education, graphic design, administrative services, and translation among others are likely to be impacted significantly by AI. Meanwhile, Khowaja et al. (2023) posit that low income countries are less likely to reap benefits from AI compared to their higher and middle income counterparts, as low income countries continue to lag behind in having the infrastructural foundations for Wi-Fi along with suitable data plans. This likely hinders access to AI applications and the respective digital skills required to land middle income jobs, leaving workers in lower bracket income countries pegged to low paying jobs for lack of accessibility to digital skill sets. To illustrate this point further, Khowaja et al. (2023) argue that in low income countries, the average internet speed is 11 MBps, 6 times less than the average internet speed of upper and middle income countries. Thus, with weaker internet connectivity and insufficient Wi-Fi infrastructural towers and bandwidth, the acquisition of AI and digital technology skills is less likely.

As a result, workers who do not adapt and learn the necessary labor market AI skills will likely become obsolete and later be replaced by those who have more suitable skills and technical know-how; this is likely to further deepen the existing digital divide between low-income countries and their upper- and middle-income counterparts. Acemoglu & Restreppo (2019) contend that as automated AI systems replace manual labor, and workers with insufficient digital skills get downgraded to even lower paying jobs, this likely results in a continued decline in productivity growth as well as a decrease in national income/GDP because artisan jobs, having been replaced by automatons, no longer exist and the employees no longer offer their handiwork as exports. This consequently leads to job stagnation and the eradication of small businesses since corporate giants monopolize the market both locally and internationally. Moreover, Hussein et al. (2020) posit that with the continued advancement of automated AI, 47% of total US employees are likely at risk of job displacement brought about by these technologies within the next 2 decades. Hussein et al. (2020) also argue that, in accordance with such predictions, AI-driven companies will likely generate substantial amounts of revenue benefitting fewer people while simultaneously widening the wealth gap.

As such, while middle range paying jobs are replaced by automatons and AI-operated machines, the social pyramid is restructured becoming steeper as it widens the range for low range paying jobs — reminiscent of old social orders in Europe where nobles, clergy and the military were placed at the top of the social pyramidal hierarchy, leaving merchants, artisans and peasants/farmers and slaves on the lower levels. Hence, not only does this likely contribute to deeper disparities in wage segments at the local level widening the gap between different classes in societies, but this also creates a hegemonic hierarchical relationship between low-, middle- and high-income countries with the result that certain countries will have more hegemonic influence over lower income or developing countries.

2.4. Societal disequilibrium

The increase in the adoption of AI applications, software, bots and humanoid robots in myriad facets of society is not unwarranted as the services they render are varied and, in many cases, beneficial. However, this unprecedented adoption of AI technology at an almost break-neck speed may create a state of social malaise. To begin with, AI technologies have likely become indiscriminately adopted across varied domains in society replacing both white collar and blue collar jobs. In so doing, increasing social malaise is likely on the rise. This has been expressed in the works of McGuire et al. (2023), who argue that with the adoption of AI software to replace customer service employees, clients not only feel a state of disease in 'conversing' with an AI agent but also downright refuse to engage with a bot altogether. Meanwhile, businesses are facing a dilemma between maintaining higher profit margins by using AI customer service agents or risking losing their clients entirely. To counter this, some businesses are refusing to disclose that their customer service agents are AI bots, raising ethical concerns and leaving behind a socially distrusting clientele. Moreover, Krügel et al. (2023) argue that AI applications, and particularly ChatGPT, make unmonitored suggestive comments that are morally questionable. In fact, Krügel et al.'s (2023) study evaluating 1851 students' moral judgements and their likelihood of being influenced by Chat GPT's responses posits that the Chatbot may likely threaten to corrupt youth's moral judgements, again, leading to a state of social disruption if users lack knowledge, are emotionally unbalanced or, at best, naiive. Moreover, in alignment with Krügel et al.

(2023) and taking matters further, Coghlan et al. (2023) raise significant concerns where mental health chatbots are involved, further attesting to social malaise that may result. To elaborate, Coghlan et al. (2023) argue that mental health chatbots can prove to be harmful to patients who are vulnerable or susceptible to harming themselves based on a chatbots' advice, which may or may not be morally sound. Coghlan et al. (2023) also argue that organizations employing the use of mental health chatbots run the risk of having their reputation damaged if patients' personal information is disclosed along with issues regarding transparency, accountability, privacy and accuracy.

However, perhaps the most daunting prospects for AI use in its potential to create social disequilibrium at large is through people's anthropomorphizing of AI applications and humanoid robots. One concern according to Friedman (2023) is that humans start forming emotional bonds with humanoid robots which cannot be reciprocated, such as the use of sex bots which are slowly becoming more popular globally. Moreover, Friedman (2023) also argues that the use of social robots in homes for the elderly as well as to treat autism, for example, may lead to more social isolation as people become disinterested in building relationships with others or interacting with the outer world; consequently, people confine themselves to engaging with humanizing robots. Furthermore, Maninger & Shank's (2022) findings reveal that people tended to overlook violations committed by social robots when interacting with them as opposed to human perpetrations. As such, a noteworthy concern would be the extent to which the lines of empathetic, reciprocal conduct may be blurred in addition to potentially lowering the threshold of tolerance for violations.

Therefore, the implications portrayed above indeed provide a dire illustration: whereas the ubiquitous adoption of AI software, applications and robots may render a plethora of beneficial services to humanity, they are not without their potentially negative consequences. As people slowly mold themselves into an isolated cocoon, driving out human interactions and replacing them with AI applications and other social robots, and with the potential likelihood that some bots may commit violations likely expanding the human threshold of tolerance to violations, this may indeed blur the lines of what is considered acceptable human conduct and what is inadmissible. As such, this may drive humanity into a state of social disequilibrium as novel thresholds foreign to humane interactions are crossed.

2.5. Datafication, big tech and political hegemony

2.5.1. Brief overview

With the acute digitalization of societies accompanied by the adoption of AI technologies, technological corporate giants have come to amass a large amount of power, particularly with the process of datafication or the use of personal data from browsers, varied digital and smart applications such as smart phones, smart watches to name a few (Khanal et al. 2024). Corporate giants, among which are Alibaba, Baidu, Meta, Netflix, Google, Amazon, Apple, Facebook and Microsoft, also known as Big Tech, have access to and quantify millions of pieces of information from people around the world. In turn, this data is analyzed, commodified and monetized through service exchange platforms in the form of commodities. An example of this would be providing personalized products to specific consumers after amalgamating data on their preferences, likes and dislikes obtained from their daily interactions through smart cities or devices (such as smart phones or smart watches), whether or not consent to use such information was given, i.e. ethically or unethically (Yüksekdağ 2024). Subsequently, as the afore-mentioned companies set up large platforms that rely on the networking of products and services, they likely appear more attractive to both buyers and sellers, thus monopolizing the market and creating a digital ecosystem that renders the lion's share of benefits to these Big Tech conglomerates (Khanal et al. 2024). In turn, these platforms allow Big Tech giants — through prioritized algorithms — to selectively choose what content is made visible and rendered important online and what is censored, whether this includes scholarly research, political discourse, narratives, public debates and even news, thus usurping control. This often occurs in hegemonic form as specific ethnic and religious groups' content may be censored, particularly on platforms such as Facebook, for example, while other issues and debates may be highlighted. Moreover, Khanal et al. (2024) augment their argument by citing that Big Tech companies contribute to more than 22% of market capitalization of S&P 500 companies and wield significant power as their individual sizes exceeds the GDP of some countries such as Canada and Italy (as cited in Chowdhary & Diasso 2022). For example, Kitchen (2021) argues that in the year 2018 alone Apple rendered profits of $265.6 billion in net revenue, while Amazon boasted $239.2 billion, Microsoft $110.4 billion, Facebook $55.8 billion, and Alphabet, Google's parent company, $136.8 billion, yielding a total of more than $801.5 billion in annual revenue. Kitchen (2021) adds

that this amounted to roughly the size of Saudi Arabia's nominal GDP in 2018. Moreover, Big Tech corporations are also known to be major funders of media channels, as is the case with the Washington Post, which is owned by Amazon, selectively allotting what gets highlighted as news and what does not (Khanal et al. 2024).

2.5.2. Big tech and government

In addition to the economic power wielded by Big Tech businesses and their respective ability to alter, influence and manipulate policy making, Khanal et al. (2024) argue that such companies equally exert cross-border influence as global players in international contexts manipulating and challenging the sovereignty of countries through interventions in foreign politics, economies, governmental policies, and educational systems (Kitchen 2021). Intervention in educational systems likely occurs through data centers, digital and educational ecosystems by partnering with rulers of developing nations and by introducing new 'norms' and cultural value systems championed and implemented by the developing countries' leaders (Coleman & Tieku 2018). As such, the private sector's Big Tech corporations seemingly enjoy a significant amount of autonomy and power, acting as major players in geopolitics (Kitchen 2021).

2.5.3. Big tech and AI warfare

As the private sector's Big Tech companies ensure their commercial hegemonic presence through datafication, they equally strive to maintain their supremacy with respect to national security (Graham 2019). Substantial investments and allocated funds by private firms and universities are being made at a rapid pace in a seemingly arms-race like manner to develop AI-powered weaponry (Hussein et al. 2020) referred to as malicious use of artificial intelligence (MUAI) (Roumate 2024). Powerful nations such as Russia, South Korea, the European Union along with the USA and China seem to be holding the reigns of control and competing in the crafting of such weapons ranging from algorithm-leveraged biological warfare to AI-powered nanobot weapons and robotic soldiers to warfare jets (Hussein et al. 2020, Kambouris 2024, Sharma 2024). What is more, investments in the development of cyberweapons to maintain security control are facilitated by establishing the necessary infrastructure for digital systems such as 5G towers needed for MUAI to operate (Roumate 2024).

2.5.4. The marriage of AI and bio-agents

One form of AI-driven warfare is being merged with biological warfare. To be sure, the use of biological warfare was common in the past and goes back as far as the sixth century B.C. when the Assyrians contaminated water wells with a fungus called *Claviceps purpurea* (rye ergot) (Das & Kataria 2010). In 1346 the Tartars hurled plague-infested cadavers over the city walls of Kaffa, and in 1767 the British offered smallpox contaminated blankets to the native American Indians allied with the French troops (Riedel 2004). However, the resulting peril from the marriage of AI and biological warfare is classified under weapons of mass destruction (WMD) due to the notoriously lethal and far-reaching consequences (Kambouris 2024). According to Google's former CEO, Eric Schmidt, the most lethal use of weaponry is the employment of AI in bio conflict (Egan & Rosenbach 2023). With AI advancing at breakneck speed, large-scale bio-engineered systems guided by algorithms can analyze massive data sets to identify patterns in DNA and genetic coding of different populations and ethnic groups. In turn, specially geared weapons can target the utmost genetically specific groups — individually or en masse (Kambouris 2024, Roumate 2024, Sharma 2024). The ease with which these technologies can tamper with virulent pathogens transmissible to human populations is indeed unprecedented (Sharma 2024). In fact, in the name of 'scientific development' researchers can easily order online biosynthetic do-it-yourself (DIY) packs for bacterial gene engineering for as little as $85 (Egan & Rosenbach 2023, Sharma 2024).

2.5.5. AI-operated nanotechnology weapons/drones

Meanwhile, Kambouris (2024) argues that micro and nanotechnology integrated with AI may offer another form of biowarfare through the injecting of nano-sized substances which can be set to be released in response to specific stimuli. These nano-bots are functional in 5G environments and can be remotely operated and activated to target selected minorities or subpopulations, specifically those who are non-compliant, resulting in mass health degradation if not mass murder altogether. This can occur through the dissemination of vaccines as well as inhalable or digestible modalities that reach vital lung tissue and/enter the blood circulation. Furthermore, nano-bots can even be small airborne vehicles, invisible to the naked eye, such as particles that target specific biosignatures particular to ethnic populations with the function of instigating in-

fection or disease (Roumate 2024). There are also cyborgs which can be ejected into the sky, water and even land bodies such as in the use of cyborg insects for surveillance, attack or to damage crops (Šiljak et al. 2022, Kambouris 2024). In addition, there are also lethal autonomous weapons or (LAWS), which are algorithm-operated drones armed with cameras, microsensors as well as explosives, whose mission is to bring down a target and then self-destruct. Such weaponry is currently being used in Ukraine and Gaza (Werkhauser 2022). Subsequently, a plethora of superpower states are eager to make military upgrades of this nature such as the USA, China, the UK, Australia, South Korea, Israel and Russia. Meanwhile, Second and Third World countries such as Brazil, Chile, Argentina, Ecuador, Columbia, Costa Rica, Pakistan, Djibouti, Morrocco, Mexico, Jordan and Egypt are calling for a ban on the research, creation and use of such technologies. However, to date, no ban or protective policies have been adequately established or properly implemented (Roumate 2024).

3. SOLUTIONS ON THE NEAR HORIZON

Throughout history, biowarfare has always been used. In fact, scientific advances in microbiology paved the way for biowarfare programs which were actively used as early as the First World War. In fact, the Geneva Protocol of 1925 was the first to disallow the use of gas and bacteriological modalities of warfare (Lee et al. 2022). However, there was hardly any resonance to this protocol as history continues to witness extensive attempts to create and execute protective protocols in varied forms banning the use of biowarfare coupled with AI; however, they have been rendered ineffective. While the USA and China are the most active countries in the development of MUAI (Graham 2019), there are no sound protective protocols that have been put into practice. This may be due to a number of reasons. For starters, international law needs to be updated regularly; however, the speed at which MUAI is developing outruns by far the ability of international organizations to establish protective protocols, leaving them outdated and quite behind (Roumate 2024). Moreover, as nations meet during regulatory conventions, it requires as little as 2 or fewer states to refuse or block the execution of an MUAI protective protocol (Human Rights Watch 2020). Other caveats in the building of protective protocols include ambiguity and nonspecific clauses that allow for loopholes in the execution of protocol decisions. For example, protocols such as the Brussels

Declaration of 1874, the Hague Declaration of 1899 and then again in 1904 were either not ratified by all member states present or lacked the necessary clauses to put into effect the bans on the use of biological warfare (Sharma 2024). Moreover, the Geneva Protocol of 1925 and the Biological Weapon Convention (BWC) of 1996 also had shortcomings, as the former did not explicitly prohibit the use of biological warfare while the latter did with certain exceptions which include permission to establish biodefense programs for research and peaceful purposes such as creating vaccines (Sharma 2024). In addition, there is ambiguity in the protocols regarding the nature of biological agents and their quantities.

Yet another shortcoming in the establishment of protective policies against the misuse of AI is the absence of reliable verification and compliance mechanisms to ensure that states do indeed conform to protective policy measures. Mostly, the protocols rely on states' self-reporting their use of biodefense programs. Meanwhile, in the act of a real violation of the protocol, no convention to date has a viable, credible reporting mechanism to treat transgressions adequately. That is, should any noncompliance take place, the measures stipulated by the current treaties and protocols call for the issuing of a complaint followed by a possible investigation by member states of the United Nations Security Council (UNSC); however, this comes to no avail as the UNSC has given permanent members of the UNSC the ability to veto any such investigations should they so choose (Sharma 2024).

Subsequently, a final caveat in the comprehensive implementation of protective policies against MUAI involves the frugal funding of certain conventions, such as the BWC. Comparatively, the BWC is understaffed with respect to the Chemical Warfare Convention (CWC), where the former has 3 or 4 staff members and no scientific body responsible for informing the public about the latest advances in biotechnology, while the latter is comprised of a large staff and is endowed with a scientific body for such purposes (Sharma 2024).

4. GLOBAL HEGEMONY, AI AND ETHICS: FINAL THOUGHTS

At the global level, there seems to be a never-ending tug-of-war for power. In fact, Rowell (2023) laments that where critical situations involving climate change, pollution, preservation of the earth's biome as well as the scarcity in food resources and water necessitate the cooperation of superpowers

such as the USA, Russia and China, in truth, the likelihood of such cooperation is farfetched. Both Rowell (2023) and Zhang (2024) argue that the Cold War never ended. In fact, Zhang (2024) further develops on Rowell's (2023) viewpoint by arguing that where the Cold War dating as far back as the late 1940s once involved a usurping of geo-politcal strategies and territories in tight power struggles between the USA and the former Soviet Union, the Cold War of today is boundaryless as it draws its battlegrounds through AI-run technologies, semiconductors, and biotechnologies and calls for a reshuffling of world power players. To this effect, no longer is the idea of Cold War weaponry as distant and unpalpable as something from a thriller or a sci-fi movie; rather, it is as personal and as common place as the very screens within a palm's reach and the numerous digital screens in any given home. Furthermore, Zhang (2024) further posits that digital technologies form the backbone of rivalries among hegemonic coalitions citing the example of Japan, Australia, Netherlands, Taiwan and South Korea allying with the USA, while North Korea, China, Iran and Russia form a separate axis. As such, Grochmalski (2020) argues that the existing hegemonic power plays are likely here to stay and cites Nixon as one example who states that 'the world cannot be safe until China changes' (p. 22), while simultaneously arguing that the Chinese vision is one which aims to establish a new global order.

Thus, the likelihood of a continued conflict hegemony among superpowers embracing a digital race for supremacy is at the forefront of the global order's continuum, while environmental and ecological issues both critical and pressing in nature, continue to be secondary and set aside on the proverbial back burner. Subsequently, the implications for this as argued by Zhang (2024) as well as Grochmalski (2020) is a power race of advanced nations striving to maintain AI technological superiority to enhance national and military defense through advanced weaponry. To this effect, this leaves the world in a state of nonequilibrium and at an ethical impasse.

This state of nonequilibrium involves a number of countries that are not backed up by coalitions, setting them at a disadvantage politically, economically and culturally. These include Second World countries such as those in South America whose economies continue to suffer from hegemonic globalization (Marsella 2005) as well as lesser developed countries which are often the testing grounds for new AI-based weaponry, as has been the case in Gaza and Lebanon (Busby 2023). Moreover, many citizens of First World countries are not exempt from the ebb and pull of hege-

monic forces. In fact, Rowl (2023) argues capitalism and its 'laissez faire', profit-enhancing forces, in and of itself, becomes corrupted, specifically when people's wills are not reflected in governmental decisions or in the actions of businesses, such as Big Tech, for example. As such, while the datafication and commodification of people's personal information have become commonplace, while AI-induced technological advancements send local businesses and manual laborers into bankruptcy and unemployment, and as Third World countries battle with survival against drone-driven radioactive neutron warheads, the lines of morality are blurred through moral relativism as suggested by Chakraborty (2021). In essence, certain acts such as commodifying personal information despite privacy breaches, running local businesses into bankruptcy or applying biowarfare on lesser developed nations may be rendered as ethical depending on their purpose and utility (Shaw 1984, Chakraborty 2018). The authors argue that moral judgements are context sensitive as they are based on varied intentions, motives and personal choices. Moreover, Shaw (1984) argues that moral acts are those that run in the direction of welfare and provide the greatest utility, particularly dismissing war-related deontological ethics, and underscoring the importance of using 'unmanned weapons' to decrease the risk of injury for soldiers. Meanwhile, Chakraborty (2021) posits that acts are deemed moral if they promote good at a universal level. Therein lies the ethical impasse as utilitarian ethics tend to blur the lines of what is deemed deontologically unacceptable as regards hegemonic supremacy at the economic, societal and political level.

5. LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

Subsequently, while this theoretical overview is comprehensive in its merging of AI and hegemony between 2002 and 2024, it is lacking in that it requires an empirical aspect. Perhaps statistical evidence of GDP along with unemployment indices for countries which have adopted AI in their economies and varied sectors could be comparatively evaluated. Moreover, interviews of economists in the field in tandem with AI analysts and their perspectives on how AI is impacting countries developed and developing, locally and internationally, could be considered. This kind of information may not be easily available or particularly accurate given the novelty of AI's impact across the globe and the lack of transparency of data, as well as the existence of misinformation and disinformation websites.

However, this theoretical framework does indeed address gaps in the literature by delineating the exiting hegemonic framework between super-power nations and their fervent 'arms-race'-like engagement with AI. Moreover, another manner in which this theoretical overview addresses a gap in the literature is that it provides a macro-perspective of AI as a hegemonic tool which further underscores already existing inequities not simply at a social, local level, but also on an international, global scale. Consequently, while mainstream media seems to be unilaterally boasting the virtues of AI through algorithms, to a large extent people are generally unaware or incognizant of how AI may be used as a tool for hegemony. Moreover, while AI is developing dynamically, the protective protocols ensuring equity and safety against the misuse of AI are light years behind. Hence, the adoption of AI tools must slow down to allow for protective protocols to catch up with the latest developments of AI and shield people from the potentiality of metamorphosing themselves from humane individuals to dollar-rated, datafied, profit-rendering entities. Moreover, there should be a call to either ban monopolistic control of data by corporate monoliths or decentralize Big Tech companies' power globally. If indeed Big Tech's power was run by a global system of checks and balances, societies would be restructured and transformed. Instead of having a steep pyramidal structure, with hegemonic elites of Big Tech at the pinnacle and a wide range of lower skilled classes at the bottom, reminiscent of steeply built feudalistic social hierarchies of the Middle Ages, a flatter pyramidal structure with a middle class serving as the barometer would exist instead. Finally, there should be a binding international treaty to freeze all activities concerning AI weaponry on a global scale.

AI has revolutionized a diverse number of sectors by creating a plethora of jobs for middle collar workers, facilitating feasibility studies for financial institutions, providing resources in the educational sector, as well as enhancing the medical field through surgical interventions and medical diagnoses, not to mention the immense profits reaped in the industrial and marketing sectors. However, it is not without its hegemonic specter; namely, that it is further deepening disparities within societies and nations, locally, internationally and globally. With the power to wield a significant amount of damage to societies, the threats of AI are myriad and menacing. Whether these threats relate to the irreversible ethical breaches in privacy, deepening the already existing socio-economic rifts or through political bullying using the menace of fully autonomous weapons, AI has presented itself as an existential menace to human civilization. And while the proverbial djinn has already long been released from the lantern, effective and binding regulatory measures are imperative to ensure the continuation of humanity on earth in a sustainable, equitable, and peaceful manner.

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