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Technological Unemployment and a Theoretical Solution to its Imposing Threats

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Abstract

The following paper seeks to offer a new political movement known as panhumanism as a potential solution to the catastrophe that technological employment could impose locally in the United States and on a global scale. In the past 300 years, we have seen revolutions in technology and class structure. These accelerations in technological advancement and social stratification are transforming the society in which we currently live. Technological unemployment, once termed a fallacy and misinterpretation of economics, is becoming a reality with every day of advancement. Both arguments for and against the validity of technological unemployment are explored. The finding is that the current pace of technological advance will result in a degree of automation to the extent that the advancement results in a net job loss. The response to such a setting must not be a movement against technology; contrarily, this paper seeks to find a harmony between the global economy, government, and citizen by defining a movement known as panhumanism, which seeks to promote the use of technology so as to empower the individual human in the political process and in daily life.

Keywords: Technological unemployment; Labor system; Sociology; Direct democracy

Beginning of Stratified Societies

About 12,000 years ago, the Neolithic Age began [1]. The human race discovered agriculture, creating ripples in the way society was organized. Hunter-gatherers began to settle, transitioning to a sedentary lifestyle. Animals and plants began to be domesticated. Some societies turned to pastoralism and horticulture while most were societies were centered on agriculture. As agricultural society progressed, it became more and more efficient. Surpluses were achieved and with surpluses came specialization of some of the farmers. With specializations, came class divisions [2]. Although it could be argued that class divisions existed within hunter-gatherer society, they undoubtedly grew more extensive (and much more traceable) with the onset of sedentary society. Even the Cradle of Civilization had social stratification, from priests to slaves [3]. Global society progressed towards a sedentary lifestyle over the next 14000 years, implying that it is simply natural for the human civilization to take its course and develop into sedentary societies with class structures. One of the major and most prominent, and ultimately the last, groups of nomads died out when the Mongols fell in the fifteenth century [4]. Considering that social stratification developed independently in two isolated hemispheres of the world – as well as other areas – it is logical to suppose that class division is a natural part of the progression of human civilization, but not necessarily a permanent condition [5].

Beginning of the Industrial Revolution

Yet in the 1700s, something amazing happened. In Britain, citizens began to use basic machinery to manufacture products. Thus, the shift toward factories and mass production was started. The Industrial Revolution began. The discovery of a new method by which to produce basic goods revolutionized the way in which class structures developed. The Industrial Revolution allowed for capitalism – the economic system in which products and the means of production are privately owned and individuals are free to risk their own money in an effort to earn more money than invested – to develop more thoroughly. Individuals could now invest in factories and other means of mass production in order to turn a profit. Although capitalism has been practiced for millennia without the use of the term, it could now be practiced on a much larger scale than ever before as the global economy strengthened and grew more and more interconnected, especially with the innovation of the steam engine [6].

At this point, both capitalism and the technological revolution intertwined to develop great incentives to produce machinery that would replace the worker. The more automated the process, the less workers working, and the cheaper the production cost result in a larger profit. Fewer farmers were needed to produce the same amount of food while fewer sewers were needed to produce the same amount of clothes [7].

Nonetheless, as the revolution spread, peasants and serfs flocked to urban centers, aspiring to earn a job as a factory worker. More and more factory workers immigrated to the cities yet still experienced poor living conditions as such sudden growth developed without a plan [8]. These laborers were a part of an international capitalist manifestation. While the urban poor class swelled, the gap between the urban poor, the newfound middle class, and the wealthy undoubtedly existed yet income inequality and quality of life increased, as it still does today with modern industrialization [9]. However, more often than not, the masses resented the upper classes as a result of discontent with economic inequality. Such events culminated into riots and revolts, such as the French Revolution, the Russian Revolution, and many others, arguably a result of economic inequality [10]. Ultimately, capitalism allowed for the distribution of property to become more and more unequal [11].

On communism

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On 21 February 1848, two days before the February Revolution in France, Karl Marx published the Communist Manifesto. He foresaw the fate of a capitalist society in which a communist revolution of the urban poor results in a dictatorship of the proletariat. His work inspired countless workers. It grew momentum and the philosophy spread out of Europe into the developing world. Many nations experienced communist revolutions; a select few of these revolutions resulted in a communist-based government from which we can make a case study, such as the Union of Soviet Socialist Republics, the People's Republic of China, the Socialist Republic of Vietnam, the Republic of Cuba, and many more. Of the most prominent cases in which a revolution has brought about a Marxist-inspired government, the new government becomes just as oppressive and detached as the previous one – if not, even more – as depicted in George Orwell's *Animal Farm* [12]. The government becomes domineering and ill willed, forgetting about the same people it was installed to uplift. For example, the Russian Revolution had intentions to remove the detached aristocracy and replace them with a rule by the common peasant – the result was a dictatorship by Party and a greedy ruler who killed millions in his attempt to consolidate absolute power [13].

Global capitalism

Nearly a century and a half has passed since the publication of the Communist Manifesto, and capitalism has prevailed [14]. China began to capitalize as the Soviet Union fell [15]. In 2015, Cuba and the United States began to normalize trade agreements, opening Cuba up to capitalism [16]. As a result of a nationwide economic decline, North Korea has recently experienced civil unrest, rare in the Hermit Kingdom, such as the 2009 protests [17]. With these advances in capitalism, the technological and industrial revolution continues to advance in Europe, North America, and abroad [18].

The failure of the communist system

However, the communist system was not ideal nor practical in that equality was never ensured or existent among the entire population [19]. Additionally, Marx predicted many of the outcomes of capitalism incorrectly, resulting in the rejection of his theory entirely or a renewed movement of it, such as the revisionist movement. Other unforeseen factors include the development of guilds (now labor unions), the creation of a middle class, and moderate socialism. The development of the mixed economy offered a commonly practiced compromise. Capitalism has thus worked well for the past couple centuries, coupled with incredible technological advancements [20]. However, it has led to a truly unequal system worldwide, such as in the United States for example [21].

Technological unemployment and the Luddite fallacy

As we develop technologically, it is quite possible that neither capitalism nor communism will be needed, as the economic landscape will be revolutionized. Technology is developing exponentially by the year, consuming more and more jobs. Although technology has also created millions of jobs, it has and will consume more than it produces [22,23]. Already the bank teller is going extinct as ATMs precede their fall [24]. The cashier is also becoming obsolete as self-checkout stations employed at large retailers save more money [25]. Calling a company rarely begins in a phone conversation with a human being – the telemarketer is the most likely job to be completely computerized according to "The Future of Employment: How Susceptible Are Jobs to Computerization" [26]. In 1790, 90% of Americans were farmers. Now only 2% provide the bread for The united states largely due to the large mechanization of agriculture [27,28]. Even teachers are being replaced by online programs [29]. An Oxford report suggests that nearly 47% of U.S. jobs are vulnerable to computerization by 2020; however, this report assumes that some jobs are impervious to computerization, such as surgeons, event planners, substance abuse counselors, and fashion designers [30]. It fails to take into account the unprecedented increases in technology, as computer-processing power doubles every 18 months [31].

We have reached an area of uncontrolled and unlimited technological advancement. We are on the brink of creating technology that is creative – technology that can advance and build itself [32,33]. The jobs being consumed include ever more complex jobs, such as the journalist, sociologist, surgeon, lawyer, and driver [34-38]. Even the process of discovery is being automated, including species identification in the biological sciences [39,40].

Since the dawn of the Industrial Revolution, there has been a similar "fear" – that all jobs will be lost to machines. For the past 100-200 years, this has been considered a logical fallacy, properly named the Luddite fallacy after the group of English textile workers who smashed machines in hopes of preserving jobs. Current economic theory states that jobs consumed by technology will be recreated in new industries. The increased productivity results in a price drop in the corresponding product and thus allows consumers to purchase other products. As businesses meet the newfound demand for other products, they increase production, resulting in new jobs [41].

However, this assumption relies on one vital factor: that automation remains at such a degree that new jobs will be created by the new technology to replace the now automated jobs. Contrarily, we will undoubtedly advance to a state where the degree of automation is so large that new jobs will not be created [42]. As a result of such a degree of automation, wage stagnation and technological unemployment will become and are becoming reality with every day passing. Wendell Wallach, a consultant, ethicist, and scholar at Yale University Interdisciplinary Center for Bioethics claims that we are now at the point where the Luddite fallacy is a fallacy itself, that technology is consuming jobs than it produces [43]. Additionally, automation is entering nearly every industry – what will happen to the Luddite fallacy when consumers, out of jobs, cannot afford to purchase new products [44]? Even in the 1990s, manufacturing job losses ran across the board due to automation– the United States has lost 11%, Japan lost 16%, and Brazil lost 20% [45]. Ultimately – and this is undeniable – the bulk of jobs will be consumed by the unregulated technological growth. Taking into account the extent of jobs threatened by automation and the current evidence supported thus far, it is clear that the Luddite fallacy argument is rapidly crippling under unprecedented technological advancement. Essentially, the Luddite fallacy is a historical observation, not a law [46].

It is possible that we could achieve a future in which labor – white-collar and blue-collar alike – would not exist in the sense with which we are familiar today. Machines could accomplish all forms of labor, even the creative aspects [47,48].

We are undoubtedly reaching a point in society in which workers themselves become obsolete. Here it is important to prevent logic based on present events from limiting imagination of the likely future. As has already been stated, it is possible for robotics to advance so that construction is automated, so that teaching is automated, so that even research and the practice of science is automated [49]. It may be unimaginable now, but the automated, electronic printers of today

were once unimaginable to the printing press workers of the sixteenth century [50]. It is possible that even the inspectors and assemblers in a factory are eventually replaced with intelligent machinery [51].

However, we will not achieve such a perfect setting without a transition in the process. Thus, we have achieved the point of the paper: to set goals for accomplishing a peaceful transition into a productive golden age of technology.

The consumption of lower-skilled jobs by machines resulting in a need for a higher education – thus the rise in the importance of attending university – is a trend that will continue even further [52]. However, we will eventually reach a point where unrest will ensue as a result of wage stagnation and technological unemployment. To avoid such revolts, we need to make the changes listed in the "Panhumanism" section in a gradual manner, beginning as soon as possible, in order to ensure a peaceful transition.

Current wealth disparities

Yet, even with current technological innovation, there exists enormous wealth disparities, even in the largest economy in the world as of 2015 based on GDP, the United States of America. As of 2012, 1% of Americans own 40% of the nation's wealth. 80% of the nation owns 7% of the nation's wealth, with 1 out of every 6 Americans below the poverty line. The average worker needs to work a month to make what the average C.E.O. makes in 1 hour [53].

As learned from past human developments, the wealthiest class is willing to fight and manipulate the classes below themselves in order to keep their position. Pertaining to the election system in the United States, corporations have been deemed as human too and are thus allowed to give large sums of money to potential candidates, arguably corrupting the supposed democratic pinnacle of world history [54]. Although the basis for economic inequality now (at least in the United States) – that those who are rich have earned their money and that the poor could easily climb the socio-economic ladder if they put in the effort – could easily be disproven via citing a study of social mobility in the United States, this basis would simply not exist in a society where there are simply no jobs and widespread wage stagnation [55,56]. With such wealth disparities in the United States alone, it is true that if not even a single worker was needed for the production of goods and advancement of society, inequality could easily still run rampant – with truly no other basis than a familial one, which is even more unethical than the economic inequality that exists today.

We could easily, in a few hundred years, find ourselves trapped in a dystopian, oligarchical society, oblivious to the manifestations around us. Rigged elections would give us hope while we suffered in poverty while the richest class manipulated the media, education system, and government. We would be distracted by hobbies and popular entertainment, as our minds gave in, hard-wired against critical thinking. An abusive police force would prevent dissent. From the aforementioned society, there are two following essential factors missing: direct rule by the people – democracy – and an even distribution of resources. If these factors were effectively implemented, then we would see a dramatic, positive change in society.

Introduction to the Panhumanist Society

Now imagine the following path that we may just as well take. Labor, the essential factor that creates the basis of every economic society, is erased in the way we know it by means of technological advancement. Technology is capable of creativity and autonomy as discussed before.

Therefore, there is no reason that government as we know it should not also be eliminated and replaced with a democratic, impenetrable computer system. Such a computer system would theoretically be impervious to hacking and corruption and would allow citizens to vote on every issue in the nation, from citywide to statewide to nationwide issues, via a single transferable vote system. The single transferrable vote system would allow for the fairest direct democracy possible, interacting with the other machines and calling on them for action after a vote is conducted [59]. At such a point of technological development, there is no reason that such a system would be improbable.

It is expected that with this direct democratic form of government that citizens will be inclined to redistributing resources, especially considering the redefined labor system. Therefore, it is important that this phase of society is not forced and is timed properly so that such a redistribution does not result in a setback in societal advancement."

Furthermore, it is imperative that society, in a quest to be equal, will not go as far as to promote genetic equality. Surely, biotechnology and genetic engineering are great for manipulating genes so as to prevent and/or cure disease; nonetheless, it is imperative that the diversity of the human race be preserved, for its own sake and for its own ability to survive any type of devastating disaster, such as a disease-based one. Instead, understanding and acceptance must be promoted to ensure worldwide peace.

Elaboration on a panhumanist society as a possible solution

With a strong direct democracy, an even distribution of resources, and a plentiful supply of resources and technology, the problems of hunger, poverty and any other resource or wealth related conditions are solved. Various centers throughout the nation would house the computers, which act as the mainframe for the nation's government. Since there is no need for representatives, the voting is necessary for changes in the law and actions by the government, which are correspondingly carried out by either a domestic or foreign computerized force. Propositions for amendments to laws or proposed actions would begin at the municipal level and require a certain amount of popularity and support before they would be addressed at the following federalized levels until it reaches the nationwide level, whereupon it is voted into law or action. The computers are able to detect hacker-based terrorism – such cyber-dissent is detected and eliminated through advanced prevention and deterring techniques. There is one obvious issue with a direct democracy based on computers: access. If all resources are distributed equally, then everyone has a fair chance at voting and an accessible computer. However, in the transition to this state in which this is not the case, those without accessible computers would be able to vote in the county library or any other public area possessing computers.

The distribution of resources is perhaps the most challenging step in achieving this society. Firstly, there is the achievement of this setting and then the maintenance of this setting. To achieve it, we must have compliance with every social class. Obviously, the preferable option is for all classes to be in peaceful consent but yet revolts and revolutions as a result of rising economic inequality as a result of technological unemployment may occur before society is technologically ready for resource redistribution. Such violent uprisings should be discouraged. The main factor in successful resource distribution of course is a sound and reliable technological infrastructure, which must be developed before resource distribution. However, it is important that the direct democracy ran by computers – or direct e-democracy – is implemented first. By this method, all citizens have a say in the laws passed and would

be able to collectively approve or disprove resource redistribution and the implementation thereof, depending on their current conditions. It may take thousands of years of technological innovation and class division to achieve this level of society, or it may only take a hundred years or so; nonetheless, it's not a matter of if it will be achieved, but when.

Questions we are finally faced with are that of the following: what can we do to ensure that we progress to this free, equal, and technologically advanced society?

The reality is that we do desire this utopian future at some point, but it is by no means the final destination. There will be further advancements and modifications and revolutionary changes unforeseen in the current moment. However, not all of the current population, riddled with inequality, would desire a change in the status quo as a result of conflicts of interest even though the result is in the interest of the common good. Therefore, it is imperative that we take steps now, even if they are small steps, in order to achieve this reality. The most productive steps we may take now are not in the redistribution of wealth but rather in the efforts of implementing a direct e-democracy at some administrative levels. Diplomats and representatives will still be necessary in the transition. If we promote leaders and ideas of computer integration in government, we will spark a movement toward a revolutionary type of governing – one never seen before. We must be the pioneers of this field in order to be the first to perfect it, the first to realize a truly utopian society.

Panhumanism

As we currently see, technology throughout the world is transforming the economic and social landscape of the world at a rapid pace. Therefore, it is incredibly important that we address future governmental systems that can function in such a technologically advanced society and that will support the desires of the masses. A possible solution is panhumanism, a new political ideology inspired by the empowerment of the people and their livelihoods. As defined in this paper, panhumanism aims to achieve a society in which the citizens truly have the most direct influence possible and live in equality. It is currently useful as we make a transition to an automated society where labor in the current sense is unrecognizable. Thus, the panhumanist political movement has the following goals for the 21st century, all oriented toward achieving a peaceful and equal democratic society before the complete automation of production and services ensues:

1. The promotion of the embedding of altruistic values in the corresponding culture by promoting a oneness and a need to advance human society as a whole for the betterment of the average citizen,

2. The gradual elimination of human administrative positions in government because they are corruptible and inefficient when compared to their computerized counterparts,

3. The gradual implementation of computers at federally localized levels and the integration of said computers into the nation's technological and basic infrastructure,

4. The encouragement of research that investigates methods by which to ensure humanity's control over AI intelligence throughout its development and implementation.

Thus is panhumanism and its applications to the technologically revolutionized world. This paper calls upon the citizens of the world to fight for justice, liberty, and altruism in the name of unification, peace, and the human race.

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