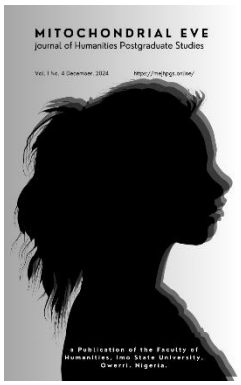

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Science without Humanity: Survey in Contemporary Developments, Issues and Implications

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Abstract

Scientific and technological advancements in recent time are emerging with features that are rapidly and dangerously competing with and seeking to replace human competence. Most of these developments as conceived, in spite of whatever help it envisages to proffer in the human community. It possesses glaring tendencies that provoke certain reasoning through human natural instinct that such developments question the purpose of God for man and devalues humanity. Profoundly captivating amongst these developments, is the focus on the manufacturing of artificial wombs and advanced robotic gadgets. These phenomena have not only the potentials to revolutionize society but as well, reduce the natural occurrence of things in their original state as findings have revealed. However, these innovations raise significant social, religious and ethical concerns. This article explores the implications of these technologies, focusing on the potential of dehumanization. Their impacts on traditional family structures and the moral considerations surrounding life and labour. By examining these themes, poise the pray for a balanced approach in scientific progress that prioritizes humanity.

Key Words: Science, Humanity, Contemporary, Developments, Issues and Implications

Introduction

Historically, it is believed that the rapid advancement of technology is responsible for altering the landscape of human life, often in ways that challenge ethical and moral frameworks. Among the most striking recent developments are artificial wombs and production of advanced robotics, these attempts seek to redefine concepts of reproduction and labour. While these innovations may enhance efficiency, they also pose profound questions about identity, agency and the essence of what it means to be human. Technology, no doubts is a factor that

has improved the lots of man from all ramifications, mentioning from the areas of agriculture, transportation, architecture, education, medicine and evangelization to mention but a few. Technology has contributed so greatly that humans consider it prime against other elements existing in the world. Technology is the only invention of human hands that have succeeded in proving the world as global village through communication. The enhancement birthed by this particular unit cannot be underestimated. In the attempt to proffering solutions to human problems, more are introduced. Through this article, the social, religious and ethical implications of artificial womb and advanced robotics among other developments are investigated. Immediately, suggesting that such progress should not come at the expense of human beings or place their natural values as an option. Brief explanation of the key concepts is provided such as artificial, womb, artificial-womb, advanced and robots.

Definition

The Merriam Webster Dictionary defines artificial as made, produced or done by human, especially to seem like something natural. It also defines womb as a uterus, a place where something is generated. Same source defines robot as the machine that resembles living creature in being capable of moving independently (as by working or rolling on wheels) and performing complex actions (such as grasping and moving objects). According to English dictionary extracted from http://wiktionary,org. advanced is defined as "enhanced" while Collins dictionary defines it as an advanced system, method or design is modern and has been developed from an earlier version of same thing.

Another online source defined artificial as any creation that emanates from human efforts, not natural, made to imitate something natural, real or synthetic. Womb is the organ in female mammals, including humans where feotus develops before birth, the uterus. Artificial womb is a laboratory device or system that stimulates the environment of the human womb allowing for the growth and development of a fetus outside the body. This concept is often discussed in the context of advanced biotechnology and medical research. Robot is a machine, typically programmable, that can perform multiple tasks automatically and with minimal human intervention. Robots are often designed to mimic human actions and functions, sometimes in a mechanical form. They are equally used in various artificial

industries and applications. These attempts would help in the proper understanding of the discourse.

The Emergency of Artificial Womb

Artificial womb is a laboratory device or system that stimulates the environment of the human womb allowing for the growth and development of a feotus outside the body. It could be described as the advanced kind of incubator. The early 20th century saw the discovery of advances in reproductive science. From 1970 through 1980, scientists conducted experiments with artificial environments for embryos, primarily using animal models. It is the studies on ectogenesis (development of embryos outside the womb). In 2017, researchers at the Children's Hospital of Philadelphia successfully developed an artificial womb for premature lambs. This device mimic the conditions of a natural womb, in proving it's' core artificial nature. Research continues globally, particularly in the United States, Japan and Europe, aiming to develop artificial womb for human use. Recently, in 2022, a more pronounced kind of womb known as ECTOLIFE was championed Hashem Al-Ghaili. A descriptive introduction of artificial womb states:

"...It was jointly developed by Japan, Bulgaria and South Korea at the total cost of five billion dollars. The entire base consist of seventy-five laboratories, each laboratory has a capacity of four hundred carefully designed artificial wombs. The artificial wombs operate without human intervention to incubate babies. The artificial wombs can operate autonomously through artificial intelligence and renewable energy. The entire artificial wombs can incubate thirty thousand babies a year. It does not only solve the problems of infertility and various diseases that prevent humans from having babies but also help countries that are experiencing severe population decline. It is worth noting that the fertilized embryos can be chosen before the babies are hatched. If you feel that the genetically fertilized embryos you choose are not good enough to produce babies...through this procedure, one can choose preferred features of their children, interact, share the stages of feotal development with loved ones, dictate malformation, monitored at home or connect to phones for those who do not wish to visit the baby factory e.t.c. The processes also prevent the natural process of birth and other rigorous... the gadget is known as ECTOLIFE" (reinventing evolution). The

above is culled from an online documentary through phoenix.

The rise of robotics and automation

Robot is a machine, typically programmable, that can perform task automatically or with minimal human intervention. Robots are often designed to mimic human actions and functions. In the past, robots were invented as a "support" and not to take total place of man. The term "robot" was first introduced by a Czech writer Karel Čapek in his 1920 play "R.U.R." (Rossum's Universal Robots). However, the actual development of robotic technology began in the mid-20th century. In the 1950, George Devol invented the first programmable robot, Unimate, used in a General Motors assembly line in 1961 marking the beginning of the integration of robots into manufacturing system. Tracing from 1970 through 1980, robotics technology, gained prominence with Japan taking the lead in industrial robotics. Then, companies like FANUC and Yaskawa developed robots that serve automotive and electronics purposes. Around 1990, were robots designed for tasks outside industrial settings. In the 2010 up to recent time, continues the integration of artificial intelligence and machine learning into robotics-transformed capabilities, allowing for greater autonomy and adaptability. Countries such as the United States, China, Japan, South Korea and Germany have been at the corridor of robotic research and development, with applications spanning various industries, including healthcare, agriculture, aeronautics, and autonomous vehicles etcetera. Elon Musk in his romance with technology is associated with outfits such as Tesla, SpaceX, Neuralink etcetera which habour significant implications for robotics and the labor market. Today, robots are designed with advanced features that compete with humans, which is transforming industries, promising efficiency and productivity gains.

Science without Humanity: In Contemporary Developments

Science without humanity is a concept in Mahatma Gandhi's "Seven Social Sins" written in 1925, it was first published in the Young India Magazine. The list of seven social sins summarizes the ethical and moral issues Ghandi perceived as challenges to the society. It is a proposed guide for individuals and communities to have an all-round compassionate and humane ways of living in specific original environments. Science without humanity focuses on the notion that scientific progress and technological

advancement should pursue a deep sense of moral responsibility and ethical consideration. Science can yield material benefits but on the contrary, becomes harmful when divorced of from human values. Science should uplift humanity and serve common good. Else, it breeds exploitation, environmental degradation and social inequality etcetera. The unchecked knowledge and power in the society contribute to injustice, inequality and oppression of the marginalized groups. Ghandi's ideology reveals also that intellectual advancement and the ethical treatment of others, ensures that science serve humanity, warning against the dangers of advancements that prioritize profits and efficiency over ethical and social welfare. In today's rapidly evolving technological landscape, numerous innovations that exemplify this concept "science without humanity" are perceived in developments highlighting the ethical issues and societal implications of a science divorced from human values in the under listed points.

The Disconnect between Science and Humanity: Scientific progress should be measured by its impact on the human condition, advocating for technologies that uplift the marginalized and promote social justice. However, many contemporary developments demonstrate a troubling disconnect. These innovations often prioritize economic gain and technological advancement at the expense of ethical considerations and human dignity.

Artificial Intelligence and Automation: The rise of artificial intelligence (AI) and automation has transformed industries, promising increased efficiency and reduced costs. However, this progress has led to widespread job displacement, particularly for low-skilled workers. Eze, C & Ogbonna, C (2020), "appreciates the engagements of robots for support and efficient purposes in areas where human labour are lacking and not total replacement as future developments projects." It is a betrayal of humanity, as communities face economic hardship due to technologies designed without consideration for their social implications. The focus on profit over people results in growing inequalities and social unrest undermining the very fabric of society.

Biotechnology and Genetic Engineering: These factors have the capability to revolutionize medicine and agriculture. The impacts trigger profound ethico-religious questions. The ability to manipulate genetic material invites concerns about playing God and the repercussions of creating genetically

modified organisms (GMOs) and being ignorant of their long-term impacts on ecosystem and human welfare.

Surveillance Technology: The expansion of such technologies employed as security measures, reflects an aspect of dehumanization. Institutions deploy sophisticated monitoring systems that infringe on privacy rights and civil liberties. Science without humanity warns against a society where technological advancements compromise individual freedoms and dignity with emphasis that science must enhance and not diminish human values.

The Climatic Change and Environmental Exploitation: The environmental crisis especially in Africa and other underdeveloped countries are exacerbated by industrialization and unsustainable practices. These consequences are borne out of prioritizing economic growth over ecological balance. Technological solutions to climate change, such as geo-engineering are accompanied by risks, which introduce harm to the vulnerable populations and ecosystem. Gandhi's philosophy would call for a respectful coexistence with nature, advocating for sustainable practices that protect the planet and its inhabitants rather than exploiting them for gains.

Issues and Implications of Artificial Womb and Robotic in the Society

The increasing dimensions through which both factors are escalating in the society are such that have raised so many concerns. In the words of Pope Francis (2015, p.102), "Humanity has entered a new era in which our technical prowess has brought us to a crossroads." In a decent society that appreciates humanity, redirections and cautions must be taken through profound reflections based on the ethico-moral, socio-religious and economic implications therein.

Ethical and Moral Implications

The ethico-moral considerations surrounding the implications of these technologies are ongoing, focusing on how artificial womb revolutionizes neonatal care in this contemporary society. Artificial womb is technology construction that offers potential benefits to ascertain improved outcomes for premature infants and expanded reproductive options for individuals unable to conceive. On the contrary, it is unethical to take up the space of natural conception and gestation of children as originally ordained by God. However, the implications are profound because the separation of childbirth from traditional maternal roles raises questions about the nature of motherhood and family.

Additionally, Kambule, T & Moyo, D. (2019), put: "The commodification of reproduction may lead to ethical dilemmas surrounding parental rights and the treatment of gestational carriers." Adebayo (2020), concurs: "With the implication of ethical dilemma surrounding the moral status of an embroyo....this technology could create a divide between those with access to reproductive technologies and those without, exacerbating social inequalities." Aside that, another ethical implication is that the existence of artificial womb would also escalate the increase of same-sex marriage would provide the partners opportunities of having children through modern birth invention. In area of advanced robotics, the ethical implications of inventing machines capable of stripping humans of job opportunities also provoke questions about the nature of consciousness and the moral status of sentient beings. According to Pope Francis, (2015, p.107) "We have to accept that technological products are not neutral, for they create a framework which ends up conditioning lifestyles and shaping social possibilities along the lines dictated by the interests of certain powerful groups."

There is no doubt that the desire to serve or proffer solutions is a positive value essential to the message of Jesus Christ: however the morality of services that companies (artificial womb and robotics) offer do not depend solely on the intention but also on the content, means employed, ends and effects of the services on man. Morality requires that profound consideration which cultural, natural and societal values portray.

The contemporary landscape demands a reevaluation of our relationship with science and technology. To align with Gandhi's vision already mentioned, cognizance must be taken on the ethical imperatives as to integrate human values into scientific endeavors. This includes fostering public discourse about the implications of technological advancements and ensuring that diverse voices are represented in decision-making processes.

Socio-religious Implications

Both artificial wombs and robotics challenge established social and religious norms. Many religious traditions emphasize the sanctity of life and the importance of natural procreation. The ability to create life in artificial environments may provoke theological debates about the nature of creation and the role of humans as stewards of life. Similarly, the rise of robotics may challenge beliefs about human uniqueness and the moral status of machines, particularly

as they become more integrated into daily life, not also losing sight of the risk factors in the society. Bostrom, (2014), summarizes: "control issues as challenge to super intelligence."

From the theological perspective, (Obilor, J. 2024), "It is only in the conjugal premises that God has given humans the opportunity of being co-creators, where natural bonds are shared, with children welcomed as special gifts from God." Therefore, the outlined features of the artificial wombs promising every connection and bond that is naturally shared by a feotus and the mother being absolutely taken care of by ectolife facilities remains skeptical. The question remains on how well can the artificial processes go, and through what lens would humans regard those babies in the society as to be tagged excellent as the theological reasoning in creation account in (Gen 1) reveals "all is good" without incredible notions.

Among the social implications of these developments lies the certainty that in time to come, the society will perceive the natural birth as a trend of a particular century. Then, generations or human being would be categorized based on two dimensions such as natural and scientific birth. This would have natural, psychological, cultural, educational even economic effects through which humans would be perceived in family structure. Kim, P. (2020) and Odukoya (2021) discover thus: "The artificial womb technology could alter the concept of parenthood...biological versus social parents and how families might be structured in future due to technological influence in reproduction."

The promise of assisting societies or "countries" challenged by population decline like Japan, Bulgaria South Korea as mentioned in the documentary through the process of artificial birth (wombs) provokes curiosity and thoughts as on what concession would the populating rescue agenda be founded in such societies? Have these manufactures hijacked the responsibility of God as sole giver of children? Is this another means of initiating issues that would affect the society and belief in God in the years to come? Considering the robotics, further survey into the socio-religious implications of robotics engagements in the society lie in their multiple involvements and services in diverse strata ranging from farming, driving, attendants in restaurants and offices among other fields. These project insecurities to human labour also challenging the philosophy of dignity in labour and the theological inference thus: "For thuo shalt eat

the labour of thy hands: Happy shall thou be, and it shall be well with thee" (Psalm 128:2) has not the influx of robots in human space disrupted the possibilities of employments and this divine consolation.

Economic Implications

The artificial wombs and robots are primarily devised to boost economic prowess of the inventors whose interests are centered on profits. Pope Francis (2015, p.106), recognizes "This has made it easy to accept the idea of infinite or unlimited growth, which proves so attractive to economists, financiers and experts in technology." The increase in such technologies creates opportunities where certain categories of individuals wield economic might as against the populace. Where robots are made to replace human labour, how then can humans prove their worth in gainful employments and maintain self-sustenance. According to Ladyjay an international blogger through her facebook page on the 27th October, 2024 reveals: "Amazon laid off four hundred workers in preference to services of the robots. Justifying their action on grounds that robots are cheaper (no remuneration and taxation) the only financial obligation involved is cost of purchase of each robot which is about thirty thousand dollars, moreover, robots are faster with greater duration in engagements unlike humans, thereby questioning the usefulness of 'human labour' to their company." This widespread adoption of robots threatens conventional reasons of employment, raising fears of widespread job displacement and economic inequality. As machines increasingly perform tasks previously done by humans, societal structures based on human labour or contribution has been affected. This no doubt, leads to a potential crisis of economic identity for many individuals. An American actor, Will Smith condemns how inhuman it appears for robots to replace human labour having understood the imminent effects of unemployment and economic threat on humanity. In the same vein, Pope Francis (2015, p.109) says: "The technocratic paradigm also tends to dominate economic and political life. The economy accepts every advance in technology with a view to profit, without concern for its potentially negative impact on human beings, finance overwhelms the real economy." More so, Pope Francis (2015, p.114), advises: Science and technology are not neutral; from the beginning to the end of a process, various intentions and possibilities are in play and can take on distinct shapes. Nobody is suggesting a return to the Stone Age, but we

do need to slow down and look at reality in a different way, to appropriate the positive and sustainable progress which has been made, but also to recover the values and the great goals swept away by our unrestrained delusions of grandeur."

Conclusion

Mahatma Gandhi's warnings about the potential for science to operate without humanity resonate strongly in today's technological context. Though, advancements in artificial-wombs technology and robotics production present certain opportunities for progress but, it also necessitates critical examination of their broader implications. As society navigates these challenges, in a world increasingly dominated by innovations that prioritize profits and efficiency, innovators must heed the call for a science that serves, uplifts and maintains cultural values thereby considering humanity. It is crucial to prioritize ethical, moral, social, religious and economic considerations that uphold human dignity and social equity. The embrace of technological innovations does not have to mean sacrificing humanity. Instead, collaborative approach that involves diverse voices; scientists, ethicists, religious leaders and the public can help ensure that the future of technology aligns with our fundamental values. By fostering a dialogue around these issues, to create a world where science serves humanity. The four basic principles of the church such as human dignity, common good, solidarity and subsidiarity give credence to ethical, moral, social and economic implications. In other words, artificial-womb remains artificial and cannot replace the conventional channel of conception and gestation. Also, robot is robot and cannot proffer better solutions than humans. Gandhi's perspective, advocate for a cautious approach that prioritizes the welfare and dignity of all human, rather than pursuing scientific advancements solely for commercial benefits.

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