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Interrogating Culture, Technology and Society

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Abstract

This paper is a philosophical examination of the dimensions of culture and technology and the impact on the human society. Employing the critical and analytic method of philosophy, the paper structured the dimensions of technology and culture into two perspectives. First, that technology has impacted and positively influences culture and society. Second, that technology diametrically opposes and erodes culture and its attending values. Although, these two dimensions stand in opposition to each other, the paper established the idea that the interrelatedness of culture and technology is unavoidable. Thus, their interrelatedness remains the bedrock for the realisation of meaningful and dynamic human culture and development in the society.

Keywords: Culture, Technology, Society and Development.

Introduction

The role of technology in contemporary human society is fundamental. On one hand technology has been taken as the basic determinant of state of growth and development of the society due to noticeable changes and transformation of the society. On the other hand, the society is often defined by culture and has made culture the reflective means of the identity of its people. However, the dynamic nature of culture has subjected it to technological influences that have eroded certain elements and values that may be considered salient by society. The point therefore is, whether the society should consider culture to be sacrosanct and oppose or disallow scientific growth that has brought technological development and the attending influence(s) on the society. Or, that technology should be given free space at the expense of certain elements of culture. The questions that agitate the mind are: can the society thrive without technology? Can technology surface in human society without any effect on the culture of a people? Is technology created to conflict with the human culture?

There is no gainsaying that technology and culture are intrinsically connected and the connection between them can be seen from two major dimensions, that is, positive and negative dimensions. From the positive viewpoint, technology may be seen or recognized as the twin sister of culture, and the relationship between them must be cordial. This is not only necessary but unavoidable for the attainment of dynamic cultural development in the society. Thus, in the positive sense, while technology provide the base for cultural development, culture on the other hand is thought to be a developmental, technical, idealistic and pragmatic phenomenon. But from the negative sense, technology is perceived not as an intrinsic aspect of culture but something independent of it. In this sense, technology is seen as a threat not only to culture but also as a phenomenon leading sporadically to the loss of spiritual and societal values (Fadahunsi 24-28). Thus, building on the two perceptions, we shall conclude that meaningful, dynamic and developmental culture shall remain elusive in human society if technology is not seen and accepted as the major thermodynamics necessary for the global development of it. Thus, technology remains the material bedrock to any form of cultural development in any society.

The Idea of Culture

Whenever the word culture is mentioned the idea we have is about a group of people with unique and various aspects of their lives or what is often referred to as world view. We think of group of people with their own ways of living. The shelter they build and live, their home life, their clothing and mode of dressing, the type of food they eat and mode of greetings. We also sometimes talk about the activities, values, attitudes, and belief system of the particular group of people. In other we employ the idea of culture to explain the custom and tradition, i.e., all that encompasses their existence as a people. This position is corroborated by Roger (29), assertion that "Culture provides rules for living and interaction. It provides a framework or hierarchy for making decisions, and sets standards for group cooperation and division of labour". It suggests to us that culture is an embodiment of the totality of a people, and it can exist at various levels, in which case, individuals belong to part of small groups, smaller groups form part of larger ones, and each group can have its own culture, especially in situations where we have certain ethnic group and communities living in a large country.

While we shall attempt to have a working definition of culture for the purpose of our analysis, it is imperative to state that although, there is no univocal or generally accepted definition of culture, however, most definitions are observed to have presented culture as what members of a social group, shared, learned and transmitted.

Literally, culture can be perceived as the artistic and other activity of the mind and the works produced by this process or a state of development in art and thought existing in a society and presented at various levels in its members (Longman 2015). Ideally, culture could as well mean the complex whole or the particular system of art, thought and customs of a society, the arts, customs, beliefs and all other products of human thought made by a people at a particular time. In short,

Culture is organisation of phenomena such as acts - patterns of behaviour, objects- tools and implements and their outputs, ideas, belief, and knowledge and sentiments- attitude and values that are dependent upon the use of symbols (Olaitan and Aluko-Arowolo: 2).

Indeed, culture is an elusive term to define. While it may refer to the complex art, mortals, laws, customs and any other capability acquired by man as a member of society, it can also be seen as a

complete organic whole of life. Culture is equally a phenomenon, capable of changing its characteristic feature from time to time and from society to society. Hence, we often heard people referring to or describing a person as 'well cultured' or 'uncultured'. Whichever of the two, that a person may be referred to depend on the degree of emotional evaluations of the level of development of the person involved. It is on the basis of this that T.S. Eliot defines culture as "all the characteristic activities and interests of a people" (quoted by Olaitan and Aluko-Arowolo 3). If these definitions of culture are integrated into the framework of our analysis, then nearly everything will qualify as culture. However, for the purpose of our analysis, we construe culture to imply 'the framework within which people live their lives and interpret their life experiences and also as something or a phenomenon which shapes, and limits a people's veins of reality'. In other words, culture is a total reflection of the world view of a particular people. With this as our working definition, we are focusing on the effort of human beings to revive and refurbish their cultural heritage which was undeveloped or polluted by external influences. In this context, attempt is made to go beyond the idea of culture as undynamic and that it is limited only to cultural items that are stored within the confinement of the museums. We shall also be concerned with the discussion of the monumental works or the artifacts produced by the people to enhance the revival of the undeveloped cultural heritage. Human beings are 'cultural beings with the capability not only to manifest but also to actualise the thermodynamics of cultural development.' They are naturally destined to create and fathom a pragmatic culture that will transform the gifts of nature. This is position is underscored by the notion that "psychological constructs such as attitudes, beliefs, norms and values can be employed as measurable cultural constructs which has been considered relevant to designing culturally responsive technology from the perspectives of theory and methodology" (Roger 29). Thus, that human beings are naturally endowed to evolve a stimulating pragmatic culture that would make the world better than he found it makes us to see a good connection between culture and technology.

The Idea of Technology

Whenever the concept 'technology' is mentioned, the idea and contributions of science comes to mind, because technology is a product of science. It is therefore, not out of place to view technology, as a scientific attempt by man to transform the natural world in which he finds himself. In other words, it is the human interaction with, reaction to changes in nature and circumstances that brought about the idea of technology. This reaction, informs human construction of a new nature different from the naturally age-long and supernaturally imposed nature. Also, technology today, is a product of interaction between human beings and their immediate environments. It is a conceived physical reaction to human needs in particular and the advancement of social existence in general. Although, the necessities of life that warrant these needs in humans' lives can be defined as either good or bad. On the one hand, the reaction towards the creation of aircraft, cars and the likes has made the movement of human beings not only easier but also faster, thereby saving time spent on long distance, secure a more safety journey and more economic gains. On the hand, moral questions can be raised in the reaction towards the building of a war Jet and other war equipment, which is aimed towards the destruction of human lives. This however does not change technology as human efforts directed at causing physical changes in nature that was divinely created. Technology involves the human ability to create devices that can subdue and bring under control, things that poses threat to the human society. In Segun Ogungbemi's words, it is human imagination and knowledge directed towards copping, dominating their physical environment and

their attempts to control that environment using all available resources (Ade Ali and Akintona 259-262).

In his philosophical analysis of the 'Promises and threats of science and technology', Ayo Fadahunsi gave a broad perception of the scope of technology by writing that:

Technology thus includes the methods used in non-marketed activities as well as marketed ones. It includes the nature and specification of what is produced - the product designed - as well as how it is produced. It encompasses managerial and marketing techniques as well as techniques directly involved in production Technology extends to services, administration, education, banking and law, for example, as well as manufacturing and industry (Fadahunsi 1996:60).

The plethora forms of technological devices that are sentient to us can best be represented by the artifacts and edifices available within a particular cultural terrain. Thus, we support our earlier discussion on what the culture of a people is that it includes symbolically both the material and non-material innovative ideas and techniques. It suffices to say therefore, that the concept of culture underpins both the material and technological developments in history. Thus, any discussion of culture underscores discussions about its technological discoveries and scientific acquisitions; it must be discussions about the culture's stage of pottery and sculpture, the potency of industrial base, food technology, agriculture and of its metallurgy. The discussion must entail the level of the exposition and exploitation of the natural resources in terms of human, mineral and the likes. It also must include different levels attained in transport industry, techno-production, automation, advertisement, advancement from the use of available human resources within the cultural society. Also, technological development is not limited to modern media technique in relation to the radio, the television, the telephone and the computer as well as the understanding of the science of space. It also includes new discoveries and development in transportation, electricity, building or constructions, medicals, agriculture, education and so on. It can therefore be argued that technology is the human cultural application of knowledge, skills and techniques in a scientific manner to realise, provide for or meet human needs. Beside this, it could also be seen as human cultural application of knowledge to influence or manipulate nature to make life easier, enjoyable, healthier and better. It is in the light of this that we observe culture and technology as inextricably connected. Our position is corroborated by Roger assertion that "culture and technology are inseparable, not even in principle. There is no technology-free culture. Separating the two would necessitate undoing human cultures (53)."

Human Being, Science and Technology

It suffices to say that scientific knowledge underpins much of the technological capacities that fuel the knowledge of economic development. Its knowledge could be seen as an intelligible asset necessary for human and society development. This informs Maru Mormina (674) position that countries must be able to use the knowledge of science and technology to drive social and economic progress. This is to be considered a global trend, as countries across the globe experiences the influence of these two on their culture.

Perhaps we should state here that discussion on technology and various technological innovations should be situated within a particular culture. This is because, the culture of a particular epoch is best represented by the varieties of its technological outfits. Also, it is important to note that behind

every form of technology is a human being in terms of thought, skills acquired through cultural milieu. Corroborating the interconnectivity between man and technology, Epstein (2) asserts that:

There is an interconnected relationship between humans and technology that exists. If humans are alive, technology is alive. Flowing through our veins and manipulated by our hands. Through people's use of technology, technology has contributed to shaping and differentiating cultures

Thus, we cannot talk of technology within a particular culture without linking it with human being. Human beings are the main forces behind all forms of technological and cultural development. This assertion can be supported by the divine instruction given to human being, a creature of the Supreme Being- God who after the creation blessed man and gave man the authority to dominate and subdue nature and the environment. (Genesis 1:28). This Biblical assertion indicates that humans have an important role to play in the transformation of the natural environment, that there is a natural potency in them to influence the natural environment according to their will. Although, this religious position could generate criticism that God did not totally complete the work of creation or that He did not create everything as religious adherents may want us to believe. Rather, He created some aspect of its content (the world) and left others for the 'homo sapiens' fill up as need arises. But then, a possible response to this could be that He indeed created everything and has perfected the creation of new things being developed through technology in the power of potency that has been deposited in man from the beginning, hence, His instruction and authority given to man to dominate and subdue nature and the environment. Without this it would have been difficult if not practically impossible for human beings who were His direct creations to process further the invention of new things and recreation of the old to meet the immediate modern needs of human beings.

Aside the biblical or the religious view of human ability and capability to influence the environment, man (human being) in Aristotelian terminology, is referred to as "homo sapiens", which means that man, is a man of 'praxis'. That is, human being is an embodiment of the activity of productions as well as the architect of his own destiny and the practical conduct of his life. In this regard, human being is pragmatically conceived as not just a cultural being but also as a tool maker as well as a constructing agent. They are the architect of their own society in particular and the world in general. Human therefore, is an 'homo faber'. Given this natural ability of man, the anthropologists and the evolutionary theorists in science were apt to argue that the process of homogenization became most expressed when man began to reason practically and scientifically, to fabricate tools and transform his world technology (Kehinde-Philips 5-8).

Since human beings are conceived as the driving force of the cultural realm of technology, they are the first homo faber and tool maker, gifted to exploit the available natural resources, enhance productivity, develop their instinct of foresight to foresee and propel their future needs. They also engender the instinct of adaptation, develops cognitively the faculty of reasoning, shapes, combines, and transforms the products of nature to serve their personal needs and aesthetic ingenuity. The final product or consequence of this creative effort is the evolution or the emergence of different technological artifacts develop for various human history and generations, environments, motivations and the peculiar needs of human society. These artifacts as shown by Alex Bridget (2019) and Morelle Rebecca (2019) range from the products of prehistoric man or the neolithic era (which include such products like polished stone weapons, the practice of subsistence farming, domestication of animals and the maintenance of gardens) culminating in the urban era, (the era of fairly large-scale farming and the use of metals) leading to the era of the

productions of sophisticated products. These include the procurement of products arising from industrial, atomic, nuclear and computer revolution, as well as revolution in transport industry, communication industry all of which combine to make up the culture of the people in the contemporary era.

It is imperative to say here that the various technological developments within some cultural bounds, still leaves us to wonder over some of the excruciating values and threats it poses to the societal survival. Thus, it is fundamental to recognise the philosophical foundations underlying the activities and efforts of technology in the society. Philosophy as we know is an all-encompassing. The input of philosophy of technology in this context is vital because it stands the chance of revealing the challenges ahead as well as the conceptual presuppositions and implications underlying the foundation of the technological artifacts characterising the modern world. The only way to probe into the ethics, the logic, the rationality, the implications, the presuppositions, the validity and the legitimacy underlying the science of technology as well as the limitation of technological development is recourse to philosophy of technology. In other words, the predominance and overall influence of technology on man and society no doubt require a 'Theory of Praxis' and an 'Epistemology of Technology' to be able to establish its foundations, legitimation, rationality and validity. Thus, much as we need technology as a right method in the act of making, as a production - activity, we are also in need of philosophy, as its judge, its critique, its support, its complement, its guide and its director.

Technology and its Values in Culture

Various reasons have been advanced for why technology must develop alongside culture or why it has to be globalised with the development of a culture. First, the emergence of scientific community and the development of modern science since the sixteenth century is to cater for human needs and to develop human culture on a global note. So, it is imperative that a culture must develop along with a particular technological breakthrough, transportation, agricultural mechanisation, education, industrialisation, urbanisation, computerisation, medical experimentation in transplantation, technology of automation, communication, etc. What, then, should be the technological promises of any dynamic culture? Perhaps, we should first mention that it is not enough for science and technology to serve as object of human intellectual quest. It behooves on science and technology to offer or create an enabling environment necessary for human growth and adaptation.

Secondly, it should, from epistemological point of view, be able to liberate people from stark ignorance and mundane superstition on the one hand and from physical constraints and general insecurities of life on the other hand. In this regard, the role of medical technology in removing the terror of many diseases and epidemics is acknowledged. Agricultural technology increases the production of food, when related to adequate social structures, such technologies can remove the age-old threat of famine. Transportation technology has reduced stress and distance of moving from place to place. Educational technology improves mode of teaching and learning in all facets of school system. Communication technology bridges the challenge of distance and enhances communication system irrespective of place and time.

Also, the developments of science and technology should be concerned with and directed towards the alleviation of, or at least reduce the burden of poverty, underdevelopment, environmental pollution and degradation. It should promote urbanisation, civilization, industrialisation and

intellectual mastery of the rudiments of nature. Effectively on this, most powerful culture and societies as observed, have recorded great success in business and industrial technologies of automation with improvement in production capacity, quality of products, business performance as well as economic growth, advancement in medical experimentation in transplantation of different human organs, discoveries of new cures for old diseases and vaccines for prevention of new infectious diseases, as well as in genetics whereby hereditary ailment can be overcome. Technology, in these societies has created a new digital world, human beings now use different technologies to seek and provide resources and information, express themselves and communicate with one another (Cher et. al 60-61).

From the above, it is obvious then that the systematic growth of technology in the contemporary time or the rationale for technology is underpinned by humans' need to achieve his destiny and fulfill his purpose materially and functionally. Also, to cope with the threats of nature, transform nature material for the realisation of *personal* fulfillment, to embark on mass production of material artifacts, subdue the spiritual and metaphysical obstacles, human being needs a technology. Furthermore, if humans were to promote their own good, actualise their intellectual endowment as well as their human actions, fulfill the ultimate finality and promote the good life, then they need a technology coinciding with their destiny and the fulfillment of their admiration and material expectation. Thus, the value of technology assumes a proper direction only in the achievement of human destiny, the realisation of their spiritual and material good. Similarly, if human beings were to institutionalise the culture of materialism, of nuclear and atomic weapon, of cloning, computer production, industrialisation, acceleration of agricultural mechanisation, production techniques, automation and cybernetics as well as the culture of sophistication in the modern media including the radio, the telephone, the television and the press, and the sophistication in the modern mode of transportation including aeroplanes, motor-cars, space ships, submarines, surface water ships and the railway locomotive engines, he needs nothing less than technology (Fadahunsi 98). It is in this sense we see the cultural globalisation of technology in relation to the fulfillment of human destiny.

The Challenges of Technology and the Loss of Spiritual Values

While we uphold the fact that technology serves as the thermodynamics and the base of any form of modern culture, and despite the technological breakthroughs, in various areas like industrialization, education, communication, transportation, mechanization and so on, in the developed nations of the world, which the third world nations are still struggling to achieve, it is imperative to point out the great dangers and threats posed by such development. The most important negative effects of technologisation of the world are basically the following

the population problem
the environmental pollution
the loss of spiritual values
Re-prioritisation of social structure
the loss of job

On population problem, we can say that one of the notorious gifts of technologisation is the ability to increase the population of the world (especially in the developing nations of the world) by leaps and bounds. Because of rapid advancement in technology, it is important to note that death - rates have fallen drastically in many countries of the third world. The overall result is 'huge surplus of

births over deaths and a consequently terrifying rate of geometric population growth without consequent growth in employment rate'. By way of illustration, "the population of the entire world by the time of the discovery of agriculture did not exceed ten million. From that time to 1830, the early stages of industrial revolution, the world population had moved to 1.000 million. Between 1830 and 1930, the population had risen to 4 billion. And it is estimated that by the year 2000 and 2030 the world population would have risen to 9 billion and 20 billion respectively (The dawn of Agriculture). The question that agitates the mind is 'What is the reason for this?' The factors responsible for this can be traced to improved medical facilities, better standard of living, mass literacy, urbanisation and other related factors. The scenario is however not the same if we juxtapose developing nations of the world and the developed nations. The situation is worse in the developing nation unlike developed nations where in many cases there is always a check on the population growth. For instance, in Asian North America, female sterilisation is allowed (Paula et. al 2020), in China, Indian and Pakistan, infanticide is permitted (Infanticide), abortion as well is permitted in many of the developed nations. Not only that, the traditions of the West also favour the survival of the fittest as there was no room for the existence of the weak who would only constitute a risk to the family, clan or tribe. But in the developing nations, the reverse is the case. There is always an elaborate medical equipment set up to keep alive paralytic and mentally defective children at costs higher than those necessary for maintaining healthy children (Onabamiro 184). The resultant effect of this astronomical growth in population is the vulnerability to missile attack, mammoth urban conglomerations, traffic congestion, unemployment and the environmental risk.

Based on the above, environmental pollution becomes a serious threat emanating from technological development and science engineering. Let us consider the use of such scientific products like fertilizers, atomic bombs, toxic wastes, industrial gas, oil spillage, electrodes, insecticides and other allied products which are rather always depleting the soil, waters and air. So also, is the use of refrigerator, generator and some other electric gadgets that has been examined to be injurious to human life due to their aiding the depletion of the ozone layer. All of these are pollutants. So, they have devastating effect on the living organisms in the sea through interference with their respiration as well as on human beings, thus causing dangerous respiratory attacks. The overall consequence of these pollutants arising from technological culture in Nwoko's words is that "man becomes a truncated being a half-man, even worse than a half-man, a man of the inferior half- a matter man" (112). In other words, man is a polluted being in the face of nature.

Beyond this is the destructive effect on the spiritual essence of man. Environmental pollution, population problem, and the overall technological discoveries of machines and other artifacts and the craze or desire to acquire them as well as the need to enhance this technological advancement have led to the loss of the spiritual part of homo sapiens, the only ontological thing which places humans in a class higher than the lower animals. The natural treasure of peace, environmental bliss and quietness have long been lost especially in the technological countries due to the multifarious noises arising from the churning of the factory wheels, the running of the innumerable motor-vehicles and the allied automobiles, the zooming of aircraft in the sky - as well as the noise of the radio and the television sets. Indeed, the loss of the spiritual values is perhaps the most serious ill-effects of modern technology - an advent of the era of enlightenment and the flowering of the age of reason.

It is imperative to note here that what thinkers like Galileo, Kepler, Newton, Darwin, Bacon, Copernicus and other philosophers of science during their philosophic and scientific expedition did was to lay the foundation that engineered the great discoveries in science and technology. Given the various identified threats of technology, therefore, can we blame them for harnessing such epistemic knowledge of science that led to breaking the obstacles of nature, to improve human lives and thus making human beings to realise that they are the master of their own fate? If their attempt at making human lives better off than what it was when life was absolutely dependent on the divine provisions of nature, should we condemn them for causing a clash between science and religion, between reason and superstition or between technological civilization and the spiritual ethos of any given culture? Should Africans given their belief in God and spirit beings jettison the crave for technology and rely solely on God given nature and all therein only? In fact, what should be the African quest for technological civilization?

Science and Technology in the face of African Culture

It is a notable fact that in any race, dynamic development must not only be praised but also be accepted. In this regard, Bertrand Russell (cited by Aigbodioh 169) assertion that: "Throughout the world, therefore, science and industrialism must be accepted as irresistible and our hopes for humankind must be within this framework" underpins the above claim.

This suggests to us then that science and technology now serves as ways by which our programmes of activities, the national developmental policies as well as industrialising and demystifying the puzzles of nature are determined. Given this view however, we dare say that technology should be prevented or guided so as not to thrive at the detriment of life - ethos of the society. In spite of the creation of technological wares like computers, automated shops and instruments as well as technological productions in de-personalized forms especially in an advanced culture, the human brain must still be accorded its space and importance. According to Fadahunsi (101) human brain must neither be allowed to suffer nor should man be turned to robots. Our position above is premised on the fact that whatever the level or status of technological production or whatever is produced is the function and effort of the brain and from the self.

In the same vein, the production of telephone, television, radio, cinema and films which have the capacity to suppress or limit the will and ability to talk and discuss, the culture of dialogue and free discussion should still be acknowledged and allowed to foster. The lost spirit of the spiritual values should be restored in order to reform the polluted society. The quality of life must be readdressed and restored. The societal life-ethos must be revisited and replanted into the fabrics of our culture. It is the failure to do this in the past and the overzealous embracement of technological civilization lacking cultural base that have propelled the nuisance in the contemporary society. Youths are becoming very much addicted to phones and social medias, which has to certain extent led to loss of traditional ethical values. There is high rate of addiction to drug, pornographic and same sex practices, alcohol and sexual harassment. There is phenomenal growth in mental illness and cardiac diseases. Extravagant materialism and de-mechanization of corporate feelings, human compassion and egoism have suddenly taken over the collective and altruistic ethos of the society simply because of modern technological advancement lacking both cultural and ethical base.

Conclusion

Although, the African project is enormous and crucial, however, if we consider science and technology as factors that will underscore the realisation of this project, the cultivation of a scientific and technological outlook that is cultural base endowed with rational framework and guided by ethical consideration cannot be undermined. In other words, the historical antecedent, the societal focus and the traditions must be considered and allowed to serve as the guiding principles. It is also fundamental that the form of education that will be institutionalized must be one that can provide the intellectual foundation for the desired change and transformation. The need for African scientists to look inward in the cause of developing any form of technology is sacrosanct. This is because the problems that we are been confronted with is enormous and technologies that they should be developing should be addressing our challenges. All challenges are not universal, and all technologies cannot be deployed to address all challenges across the globe. There is therefore less need to over-depend on foreign technology that is eroding our identity, customs, traditions and core values that are peculiarly Africans. This over-dependence on foreign technology has been one of the reasons generating the question about our relevance in global community. Since technology can never be transferred, hence a creation of an indigenous technology using the local resources will provide a recipe to the clash between African needs and western civilization, and the problem between cultural values and technological innovations.

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