

TECHNOLOGY AS A MANIFESTATION OF BEING: A PHILOSOPHICAL APPRAISAL

ONYENЕКWE CHINYEAKA CYRIACUS, Ph.D.
PHILOSOPHY UNIT,
SCHOOL OF GENERAL STUDIES,
IMO STATE POLYTECHNIC, OMUMA
chinyeakacy@gmail.com

ABSTRACT

This paper asserts that humans through technology effect changes on things to bring a desired end. Technology has become a means of bringing about transformation on things. The paper opines that technology on its own does not just cause transformation in itself rather it is the manifestation of the inner desires of the technologist. Thus the perceived transformation becomes the manifestation of being. In the work, the author examines this unseen, yet very important aspect of technology. The essence of technology as a mode of being is highlighted in the work. It further argued that technology as a manifestation of being is the way which being or humanity manifests itself in the world. Examining how attached humans have become to technology, the work argues that technology could simply be defined as a revelation of what we desire to be ourselves. As a qualitative research the work adopts the views of Martin Heidegger's theory of *enframing* as a theoretical framework. The philosophical method of analysis is used in the cause of this work to achieve our aim which is exposing technology as manifestation being.

Keywords: Technology, Essence, Enframing, Revealing, Challenging-Revealing.

INTRODUCTION

We leave in a world that has been miniaturized by technology through the drastic reduction of distance and time. Our lives are highly influenced and even controlled by technology. Considering how we have been subsumed by technology, it is therefore not out of place for philosophy to dim its searchlight on technology. Philosophy remains an attempt to understand how things in the broadest possible sense of the term hang together in the broadest possible sense of the term (Sellers, 1962, *Standford Encyclopedia of Philosophy*, 2013). In the light of the above definition, philosophy cannot ignore nor neglect a thing as serious as technology which has become the binding force holding the society together. This is not a work on the examination of the impact of technology on the society, neither is it an examination of the metaphysical related issues on technology. It is rather an examination on technology itself. It is an attempt to examine what makes technology what it is or simply put an examination of the essence of technology. It is a search for the *quidditas* of technology, that without which technology seizes to be what it is. The work however is anchored on the views of Martin Heidegger; a German philosopher who is among the frontiers of philosophers of technology.

CONCEPTUAL UNDERSTANDING OF TECHNOLOGY

The word technology is derived from the Greek word *techne* which means skill. It is usually understood as the transformation or manipulation of nature. Nature here understood as existing physical and biological environments. The reason for the manipulation is to satisfy human needs, goals and aspirations. Technology is therefore conceived as having the specific form of purposeful (teleological) action that may result in a technological artefact which is a human-made object or state of affairs that fulfils a utilitarian or practical function. (Kroes, 1998).

Understanding technology as stated above fails to include some modern technology such as software engineering that deals with the transformation of something immaterial (information). Kroes however opines that such a definition is too broad “since it makes any object or state of affairs which satisfies a practical need, and is the result of intentional human intervention in nature, a technological artefact, (for example) a wild tree planted deliberately at a certain place to provide shadows, or an organism with a slightly modified genetic structure” (1998:3). This challenge leaves one wondering what kind of action actually constitutes a technological action and what kind of objects or states of affairs are technological? This on a face-look seems an open-ended question but suffice it to state here in line with the etymological understanding of the concept that whatever may be called technology must be a “human skill based on general principles and capable of being taught.” (Audi, 2011:789) The ability of an action or state of affairs to be taught and understood makes it knowledge, objective and universal. Thus to know what constitutes technology, we ask first, can its principles be taught and when taught can they be understood and applied anywhere giving the proper conditions?

HISTORICAL DEVELOPMENT OF PHILOSOPHY OF TECHNOLOGY AT A GLANCE

The development of philosophy of technology is traceable to ancient Greek thoughts. This era presents us with four major themes or understanding of technology. First is the view that technology is an imitation of nature (Plato, Laws X 899aff, Stanford Encyclopedia of Philosophy, 2013). Technology is seen as learning from nature and when it has done, it imitates her. Thus seeing birds build their nests, technology learns to build houses for man. Aristotle, a student of Plato accepted this view but was quick to add that technology does not only imitate nature but completes what nature cannot bring to a finish. (Physics 11.8, 199a15, Schummer, 2001). We would rather view technology as a way of meeting up with man’s numerous desires, our desire to be and not completing what nature could not bring to a finish.

The second view argues that there is a fundamental difference between ontological distinction between natural things and artefacts. The difference here is that while natural things have inherent in them principles of generation and motion, the man-made products do not.

The third theme is centred on the functionality of technology. Rooting the argument on Aristotle's four causes which are: material, formal, efficient and final causes; this theme believes in the inherent teleological functions of technology.

The fourth is the various ways Plato and Aristotle adopted technological images in describing the world. For example, Plato holds that the world is the work of an Artisan, the Demiurge. Both Plato and Aristotle found technological imagery indispensable for expressing their belief in the rational design of the universe (Lloyd 1973, Stanford Encyclopaedia of Philosophy, 2013).

With the great acceptance of humans and their creative efforts which include technology, greater attention was paid to the impacts of technology on the society in the modern epoch of human history. Philosophers like Francis Bacon, Karl Marx, all had contributions towards the discussion. But within the nineteenth and twentieth century, philosophers turned a more critical attitude on their reflection on technology (Stanford Encyclopaedia of Philosophy, 2013). Philosophers like Ernest Kapp, Martin Heidegger, Hans Jonas, Arnold Gehlen, Gunther Anders etc addressed the issue of technology more philosophically even though they all had different backgrounds. This research however concentrates on the views of Martin Heidegger as a reference point in its examination of the metaphysical aspect of technology.

A SHORT NOTE ON MARTIN HEIDEGGER.

Martin Heidegger was born in southern Germany in the year 1889. He was earlier prepared for the priesthood, but later switched to mathematics and philosophy in 1911 receiving a doctorate in philosophy from the University of Freiburg. He started his teaching career at Freiburg in 1919 as an assistant to Edmund Husserl who founded phenomenology as a philosophical school of thought.

In 1923 he began teaching at the University of Marburg. The publication of *Being and Time* in 1927 scaled his reputation in Europe as a significant thinker. Heidegger's early works contributed to phenomenology and existentialism and his later works paved the way for hermeneutics especially Gadamer's hermeneutics and post structuralism of Derrida and Foucault. He was elected Rector of the University of Freiburg in 1933 even though he resigned and stepped down a year later.

Heidegger was recognized by his contemporaries and more by his students which include Hannah Arendt, Hans-Georg Gadamer, Hans Jonas, Jacob Klein, Karl Löwith and Levy Strauss etc as the deepest thinker of his time (Blitz, 2014).

THE QUEST FOR THE METAPHYSICS OF TECHNOLOGY

In the work, *The Question Concerning Technology*, Heidegger discussed and sought for the essence of technology. His interest in this work was not to discuss the use or relationship of technology to man and his society rather to find out that which makes technology what it is.

He began by categorically stating that technology is different from what makes it technology. Analogically Heidegger (1977) wrote thus:

Technology is not equivalent to the essence of technology. When we are seeking the essence of “tree”, we have to become aware that That which pervades every tree, as tree, is not itself a tree that can be encountered among all the other trees (p.1).

Invariably then, the essence of technology cannot be anything technology. It pervades and transcends every other technology or its product. It may be argued however that if the essence of technology is not technology, how then can it be the essence of technology? If we hold to the position that the essence of technology is technology then this will amount to reducing a particular thing to be the essence of technology. That which is the essence of a thing is that which applies to all members of a class and that makes them members of the class without which they fail to be members of the class.

Heidegger in his quest to establish that technology has an essence different from technology first rejected the traditional views of technology as a means to an end; technology as a human activity on the grounds that they are instrumental and the anthropological understanding of technology. According to him all these cannot lead us to the essence of technology even if they are true and correct. Thus there is a need for a deeper search for the essence of technology.

Technology as a mode of revealing: Heidegger argues that the essence of technology is revealing. As usual to Heidegger, for an explanation of this, he went back to Greek understanding of the word occasioning. ‘Occasion’ in Greek thought is “nothing more than striking against and releasing, and means a kind of secondary cause within the whole of causality” (Heidegger, 1977:4). This according to him was missing in Aristotle’s four causes of material, formal, efficient and final causes. When the four Aristotelian causes play in union in the ways of occasioning, the resultant effect will be that they let what is not yet present arrive into presencing. They become unified “by a bringing that brings what is present into appearance.” Heidegger calls this a bringing-forth when the four Aristotelian causes unite in the ways of occasioning. Explaining further, Heidegger notes that: “the modes of occasioning, the four causes, are at play, then within bringing-forth. Through bringing-forth, the growing things of nature as well as whatever is completed through the crafts and the arts come at any given time to their appearance (1977:5).

By bringing-forth, Heidegger refers to un-concealing what is concealed or unveiling what is veiled. For him moving from what is concealed to un-concealing rests and moves freely within what he calls revealing which for the Greeks is *aletheia* or *veritas* in Latin and truth in English.

At this juncture, we are faced with the problem of linking the idea of *aletheia* or revealed truth as established above to the essence of technology. Heidegger however writes that:

... every bringing-forth is grounded in revealing. Bringing-forth indeed, gathers within itself the four modes of occasioning – causality and rules

them throughout. Within its domain belong end and means, belongs instrumentality. Instrumentality is considered to be the fundamental characteristics of technology. If we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. The possibility of all productive manufacturing lies in revealing (1977:5)

Technology for him is not a mere means but a way of revealing the truth only. To verify this claim, Heidegger goes back to the Greek origin of the word technology. Technology is derived from the Greek word *technikon* which means that which belongs to *techne*. Two observations were made here. First, *techne* includes both activities and skills of the craftsmen and arts of the mind and the fine arts. From this perspective, *techne* belongs to bringing-forth.

The second observation is that the word *techne* has always been linked with the word *episteme*. Both *techne* and *episteme* are words for knowing in the widest sense. “They mean to be entirely at home in something, to understand and be expert in it” (Heidegger, 1977:5). And such knowing provides an opening up which means a revealing. The mode of *techne* is truth and this mode reveals whatever does not bring itself forth. It is as revealing and not as manufacturing that *techne* is a bringing-forth. Heidegger therefore affirms that technology is a mode of revealing. It comes to presence in the realm where revealing and un-concealment take place, where truth happens.

Bringing-forth is related to the notion of revealing since “every bringing-forth is grounded in revealing ... if we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. The possibility of all productive manufacturing lies in revealing” (Heidegger 1977:12). Technology then is not simply a means to an end, it is a way of revealing the world we live in and this is the rationale behind Heidegger’s claim that the essence of technology is un-concealment of the truth of something, meaning something being revealed or disclosed (O’Brien, 2004).

The level of revealing discussed so far is relevant to pre-modern technology. In modern technology as we may have it now, the essence of technology takes a more sophisticated form which Heidegger calls its kind of revealing “a challenging-revealing,” (*Herausfordern*). This kind of revealing is such that puts unreasonable demand to nature. Heidegger underscores this point when he notes thus:

... a tract of land is challenged into the putting out of coal and ore. The earth now reveals itself as a coal mining district, the soil as a mineral deposit. The field that the peasant formerly cultivated and set in order (*bestellte*) appears differently than it did when to set in order still meant to take care to maintain. The work of the peasant does not challenge the soil of the field. In the sowing of the grain it places the seed in the keeping of the forces of growth and watches over its increases. But meanwhile even the cultivation of the field has come under the grip of another kind of setting-in-order which sets upon (*stellt*) nature. It sets upon it in the sense of challenging it. Agriculture is now the mechanized food industry. Air is

now set upon to yield nitrogen, the earth to yield ore, ore to yield uranium, for example; uranium is set upon to yield atomic energy, which can be released either for destruction or for peaceful use (1977:6-7)

Modern technology does not look to avail of what nature already provides for us. It looks to manipulate nature, to impose upon it, to undermine its ontological and structural integrity and multitudinous ways such that we can demand more of it, extract more from it. The essence of modern technology is a challenge to nature to unlock and expose its potentials for maximum utilization of man. As nature is challenged-forth to unlock its energy, the energy is transformed, stored up and in turn distributed and switched about anew. All these processes are what Heidegger calls ways of revealing which never comes to an end.

Furthermore, modern technology is such that not only does it manipulate nature greatly, it keeps the products of this manipulations and challenges in stand-by or reserve. According to him “everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for further ordering. We call it the standing-reserve (Heidegger 1977). The implication of this is that not only has modern technology ordered and manipulated nature to satisfy some immediate needs, it orders nature excessively for even unforeseen needs. These extra products are kept in reserve waiting to be ordered.

In pursuance of his aim, Heidegger noted that it is man that is responsible for accomplishing the challenging setting-upon through which the real is revealed as standing reserve. Though man can initiate this process, man according to him does not have control over un-concealment itself, in which at any given time the real shows itself or withdraws. However, this ordering revealing happens only to the extent that man is challenged. Thus, even though man lacks the control over this un-concealment, it could only happen to the extent that man is challenged. He further explicates thus: “since man drives technology forward, he takes part in ordering as a way of revealing. But the un-concealment itself, within which ordering unfolds is never a human handiwork, any more than is the realm through which man is already passing every time he as a subject relates to an object.” (Heidegger 1977:8-9)

The self-revealing of technology as standing-reserve ordered by man is what Heidegger calls *Ge-stell* which has being translated as *Enframing*. For Heidegger, the *Ge-stell* is a difficult word and it is open to misinterpretation, however, it is for him the essence of modern technology. He explains further that:

Enframing means the gathering together of that setting- upon which sets upon man, i.e. challenges him forth, to reveal the real, in the mode of ordering, as standing-reserve. *Enframing* means that way of revealing which holds sway in the essence of modern technology and which is itself nothing technological. On the other hand, all those things that are so familiar to us and are standard parts of an assembly, such as rods, pistons, and chassis, belong to the technological. The assembly itself, however, together with the aforementioned stock-parts, falls within the sphere of technological activity; and this activity always merely responds to the

challenge of Enframing, but it never comprises *Enframing* itself to bring it about (Heidegger 1977:10)

The essence of technology which Heidegger calls *Enframing* is a fundamental way of revealing truth. It operates with the rule that nature be orderable as standing-reserve, be a chief storehouse of the standing energy reserve. *Enframing* remains the way in which the revealing happens somewhere beyond all human doing. Heidegger (1977:12) further opines that “neither does it happen exclusively in man, or decisively through man.” Enframing is a destining that banishes man into the kind of revealing that is an ordering. Again, where *Enframing* holds sway; regulating and securing of the standing-reserve mark all revealing.

This essence of technology is also the bane of technology, it is that which makes technology dangerous. *Enframing* conceals revealing as bringing-forth, it also conceals revealing itself and within this un-concealment, truth comes to pass. Enframing blocks the shining-forth and holding-sway of truth. Our author notes that “what is dangerous is not technology. There is no demonry of technology, but rather there is the mystery of its essence. The essence of technology, as a destining of revealing, is the danger” (Heidegger 1977:14) Hence the actual threat is not technology but the essence of technology as the rules of *Enframing* threatens man with the possibility that it could be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth.

SUMMARY AND THE SUBMISSION OF THIS PAPER

This work has examined the metaphysical background of technology from the Heideggerian perspective. Reflecting on the work, *The Questions Concerning Technology*, it has been ascertained that Heidegger’s remote interest in this work is to discover the essence of technology. He divides the history of technology into pre-modern and modern. He maintains that the pre-modern period took its bearing from ancient Greek thoughts in which technology was understood as a means to an end, otherwise called the instrumental and anthropological understanding of technology. He further argues that the mode of technology within is revealing, a bringing-forth or a *poiesis* which is bring-forth through another entity – for example, a chalice through the craftsman or a painting through the artist. Hence the essence of technology here is the revealing or unveiling or a bring-forth of the truth, (*aletheia*) veiled or concealed in nature.

Subsequently this position of revealing in modern era of technology, according to Heidegger that the essence of technology is not just mere revealing but a challenging-revealing or what he calls *Enframing*. Nature for him is put under serious challenge to un-conceal what is within and when there is excesses, they are stored-up as standing-reserve. *Enframing* manifests itself through the methods of setting upon, unlocking, transforming, storing, distributing, and redistributing. *Enframing* however represents an extreme danger because it opens the possibility for humans to forget their essence as beings uniquely capable of revealing the world

in different ways. More and more it causes humans to see themselves exclusively as those who order everything around and with themselves, as orderable.

CONCLUSION

It is the submission of this paper that there is something metaphysical that is not technological that makes technology what it is. Though Heidegger refers to this as revealing in the pre-modern science and challenging-revealing or *Enframing* in the modern science and technology, this paper would rather call it “our desire to be that we are not yet”. Technology is what it is today whether beneficial or otherwise by our desire to be that which we are not yet. It is this desire that keeps revealing itself in the various technological innovations man has invented. It is not technological itself but it is what makes technology what it is. Base on the metaphysical aspect of technology we cannot but say today that technology has become a mode of Being as well as a manifestation of Being. As a mode of being, technology has become the embodiment of its entire bearing on the world, revealed in its being by means of the totality of energy, conception, and fulfilment of human creativity. And as a manifestation of Being technology makes a revelation of the facticity of an existent. Technology therefore reveals not just what is in nature, but what has been produced through nature.

Finally, it must be borne in mind that our desire to be manifests itself in man’s will power. It is the will power that materialises in our desire to be. Technology is indicative of this will power which is a manifestation of our desire to be. The question here then should not be whether technology has been good or evil, harmful or beneficial to man because whatever way it is looked at no one can deny that our world has been made better by technology. This has been made possible because of the metaphysical foundation of technology which manifests our will power towards actualizing our desire to be.

RECOMMENDATIONS AND FINDINGS

This research work makes the following findings in the course of the work:

Behind every technology lies the manifestation of man’s insatiable desires to be that which he is not yet.

That technology has a metaphysical foundation.

That nature is under severe challenge to un-conceal what is within it by man’s insatiable desires to enhance himself.

The work therefore makes the following recommendations:

Man must be prudent in the pursuit of technological advancement bearing in mind that the nature is already over stressed by man's activities and also fighting back as we have witnessed with the depletion of the ozone layer and green house effects just to mention but a few.

REFERENCES

- Blite, M. (2014) Understanding Heidegger on Technology, *The New Atlantis*, Number 41, Winter 2014, pp. 63–80.
- Dipert, R.R. (1993) *Aritifacts, art works and agency*. Philadelphia: Temple University Press.
- Heidegger, M. (1977). *The Question concerning technology and other Essays*. New York: Harper and Row.
- Hilpinen, R. (1992). "Artitacts and works of art. "Theories 58: 58–82
- Hourigan, D. (2009) Zizek and the Ontological Emergence of Technology in Cosmos and History. *The Journal of Natural and social Philosophy*, Vol. 5, No. 2.
- Jonas H. (1979) Toward a philosophy of technology, *Hasting Centre Report*, February, 1979
- Kores, P. (1998). Technology, Philosophy of. In E. Craig (Ed.). *Routledge Encyclopedia of philosophy*. London: Routledge. Retrieved August 27, 2015, from <http://www.rep.routledge.com/article/Q103>
- Kroes, P. (2012). Technical artefacts: Creations of mind and matter. Dordrecht/Heidelberg/New York/London: Springer.
- Lloyd, G.E.R (1973) Analogy in early Greek thought. In *The dictionary of the history of ideas*, edited by P.P Wiener, New York: Charles Scriber's Sons, Vol. 1 pp. 60 – 64
- Mitcham, C. (1994) *Thinking through technology – the path between engineering and philosophy*. Chicago: University of Chicago Press.
- O'Brien, M. (2004). Commentary on Heidegger's "The Question Concerning Technology". In *Thinking Together, Proceeding of IWM Junior Fellows' conference*, Winter 2003, ed. A Cashin and J. Jirsa, Vienna: IWM Junior Visiting Fellows' conferences, vol. 16.
- Rivers, J. (2015). "Technology and Being: A Discussion of their metaphysical significance *Advances in Historical studies*, 4, 43 – 50. <http://dx.doi.org/10.4236/ahs.2015.41005>
- Schummer, J. (2001) Aristotle on technology and nature *Philosophia Naturalis* 38: 105 – 120.
- Sellers, W. (1962). "Philosophy and the scientific image of man". In *frontiers of science and philosophy*, edited by R. Colodry, Pittsburgh: University of Pittsburgh press, pp. 35 – 78.
- Stanford Encyclopedia of philosophy, 'Philosophy of Technology (2013).