Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(6), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

BEYOND THE INSTRUMENT: A HEIDEGGERIAN ONTOLOGY OF MODERN TECHNOLOGICAL EXISTENCE

Rubab Noorie
Research Scholar,Department of Philosophy,University of Delhi

Abstract

Particularly in "The Question Concerning Technology," Martin Heidegger's philosophy of technology is still one of the most deep criticisms of contemporary technical thinking. Heidegger considers technology as a set of instruments and a means of exposing the world, hence influencing human knowledge and existence. His point of view is pertinent to modern debates on the philosophy of technology as it questions the prevailing instrumental approach, stressing the risks of seeing technology as neutral. Heidegger cautions that contemporary technology defines human life in a calculative frame of mind, so endangering the deeper essence of being and nature. This article looks at Heidegger's critique of technology in light of modern technological advances and considers its relevance for present philosophical discussions on artificial intelligence, automation, and the environmental catastrophe. Engaging with Heidegger's work allows us to critically assess whether technological developments improve or degrade the core of human life and the environment around us.

Keywords: Heidegger, Philosophy, Technology, Freedom.

Introduction

Martin Heidegger's study of technology goes beyond the usual view of it as only tools or gadgets. His writings investigate technology as a technique of disclosing (aletheia), therefore changing the interaction between people and the world. Heidegger attacks the instrumentalist perspective in his groundbreaking essay The Question Concerning Technology, which sees technology neutral and under human control. Rather, Heidegger contends that technology affects how the world is revealed to people and how they grasp their existence.This perspective has become increasingly relevant in the contemporary world, where technology's pervasive influence on society raises questions about its ethical, ontological, and existential implications.

Technology as a Mode of Revealing

Heidegger's inquiry into technology begins with the idea that technology is not merely a collection of tools or machines but a way of understanding and engaging with the world. He distinguishes between ancient and modern technologies to illustrate his point. Ancient technology, such as the craft of building a bridge, exemplifies a harmonious relationship between humans and nature. The bridge brings forth *(poiesis)* the potential inherent in natural materials. Heidegger uses the Greek word *techne* to describe this kind of creation, emphasizing that it involves both knowing and making. *Techne* implies understanding the world where humans work with the grain of nature (Heidegegr, 1954/1977). Borgmann in his work *Technology and the Character of Contemporary Life* articulates that the modern technology, in contrast, does not merely reveal or work in harmony with nature. Instead, it imposes an instrumental and calculative framework on the world. Heidegger argues that technology is not neutral but shapes our perception of reality. Modern technology reveals the world not as a place of intrinsic meaning but as a resource waiting to be exploited. This shift, for Heidegger, marks a fundamental change in how beings and things are revealed to human understanding (Borgmann, 1987).

Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(6), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

Technology as a Means to an End

When we inquire what it is, we pose queries about technology. Everyone is familiar with the two Statements that respond to our inquiry. One claims that technology is a tool for achieving goals. The other claims that technology is a human endeavor. The two meanings of technology complement one another. A human action is to post ends and get and use the means to them. Two meanings of "technology."

Instrumental—a way to an end

• Anthropological—a human endeavor Since employing something as a means to an aim is a human action, these meanings are not mutually incompatible. "The Right" and "The True" Although it's accurate to state that technology is a tool, it is not always the case. But being right is not the same as revealing or "uncovering the Thing in its essence." "Only when such an uncovering happens does the truth come to Pass." Only the truth sets us free in connection to the object. Thus, we have to follow the genuine essence of technology via the right. A means to an end suggests a cause leading to an end.

Understanding Aristotle's Four Causes—Four Ways of Being Responsible Heidegger argues, contrary to the usual reading of Aristotle's four causes in instrumental terms, that the material, formal, ultimate, and efficient causes are how a thing Is held accountable or obligated. Heidegger's meaning here becomes clear if we concentrate on suggested examples of production and the ideas he creates to provide us a pretechnological knowledge of the process. Starting with the marble sculpture of a discus thrower, we will According to Heidegger, the Statue is "indebted" to the material (marble), the form (discus thrower), and the objective (memorializing a heroic athlete). As an efficient cause, the sculptor collects the "aspects of indebtedness"—matter, shape, and purpose—and "brings forth" (poiēsis) the sculpture. The artist thereby causes the Bringing or "bursting forth". This separates it from bringing forth an object in nature (physis). In the latter situation, it has the putting forth in itself. However, it is crucial to emphasize that the artist's activity does not occur apart from the other elements or causes collected by the artist's activity, i.e., how the work is generated. Now, what is this bringing forward? How does it occur in nature and art? According to Heidegger, "The Four methods of being responsible bring anything into sight. They let it enter into Presencing [An-wesen]. They let it go to that location and so begin its journey, specifically, into its Complete arrival. "The bringing-forth is a unified process, a single leading-forth to which [each Of the causes] is indebted." Heidegger, 1954/1977

Aristotle's Four Causes

• Material – matter (hyle) is accountable

• The formal-- structure is accountable.

• The final — The ultimate objective (telos) is accountable.

• Efficient — The manufacturer is accountable for assembling the other three.

Heidegger asserts that all four are interconnected and "co-responsible" for the outcomes produced. Additionally, Albert Borgmann's illustration of the wheelwright aids in comprehending the occurrences.

• Material — wood
• Formal — wagon; the shape produced by the wood

• Final — purpose linked to the particular wood and shape of the wagon
• Efficient — The wheelwright operates in harmony with nature ("human to nature") (Borgman, 1987).

Borgmann juxtaposes the wheelwright's wagon with a technical apparatus — a watch — to illustrate.

Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(6), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

That instrumental means and ends in technological production, in which the product—what Is the sole actual concern, is not overpowering or decided in the conventional manner of revealing And output. The bringing-forth is also a component of an unconcealing. "Bringing forth happens only insofar as Something hidden comes into unconcealment [alētheia]." But how does this relate to the core of technology? Everything... [for] technology is a Way of exposing.

Three Claims of Heidegger's Analysis of Technology

As we have known, analysis of technology by Heidegger in *The Question Concerning Technology* comprises three central 'claims':

1. Technology is not only a tool but a means of comprehending the universe.
2. Technology is "not a human endeavor" but evolves beyond human oversight.
3. Technology represents the worst peril, limiting our perception of the world to a technical framework.

Heidegger is an exceptionally challenging philosopher to comprehend. Nonetheless, providing you with his unique composition will remain advantageous. This excerpt delineates Heidegger's examination of the nature of technology and its role in our existence. Manufacturing output. A sawmill in a remote valley in the Black Forest represents a rudimentary mode of transportation in contrast to the hydroelectric facility on the Rhine River (Heidegegr, 1954/1977).

Nonetheless, it remains accurate that contemporary technology serves as a means to a goal. The instrumental view of technology thus influences every effort to establish an appropriate relationship between humanity and technology. All outcomes hinge on the adept manipulation of technology. We shall, as we express, "master" technology "spiritually." We shall get mastery over it. The drive to achieve mastery intensifies when technology risks eluding human oversight.

However, if technology were not only a tool, what would be the implications for the desire to control it? However, we inquired whether we did not recognize the accuracy of the instrumental definition of technology. To ascertain. The proper consistently focuses on something relevant in the matter being examined. Nonetheless, to be accurate, this rectification must not reveal the substance of the matter at hand. The truth emerges just when such a revelation occurs. Consequently, the simply correct is not yet legitimate. Only the truth establishes a liberated relationship with that which pertains to us from its core. The accurate instrumental definition of technology fails to reveal its core. To achieve this, or at least approximate it, we must pursue the truth using the appropriate means. We must inquire: What constitutes the tool itself? To what category do means and ends pertain? (Heidegger, 1954/1977, pp. 20-27).

Technology as Enframing *(Gestell)*

Heidegger's central concept in his critique of technology is "Enframing" (*Gestell*), which refers to the technological way of revealing the world. According to Heidegger, in the modern technological age, the world is enframed in a calculative mode of thinking, where everything—including nature and human beings—is viewed as a resource or standing reserve (*Bestand*) to be optimized and exploited. Enframing limits the possibilities of experiencing the world more authentically, reducing all forms of existence to their utility and functionality (Cocchiarella, 2019).

This enframing of reality is not simply the result of human choice but is intrinsic to modern technology's essence. Heidegger emphasizes that humans do not control this process but are shaped by it. This insight is particularly relevant in contemporary debates about automation, artificial intelligence, and digital technologies, where the tendency to optimize and control all aspects of life has intensified. For instance, the proliferation of data-driven systems reduces complex human experiences to measurable and manipulable information, echoing Heidegger's concerns about the calculative nature of technological thinking.

Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(6), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

The Danger of Technology and the Forgetting of Being

Hubert Dreyfus in his book , Being-in-the-World: A Commentary on Heidegger's Being and Time, believes that for Heidegger, the greatest risk of contemporary technology comes in its capacity to hide deeper qualities of reality. By lowering the world to a standing reserve, technology separates people from a more primal relationship with creatures. Heidegger worries that technology separates individuals from their genuine identities and nature, therefore robbing them of the ability to truly experience the universe. The ecological catastrophe, in which nature is more and more commodified and abused, makes this more clear (Dreyfus, 1991).

According to Heidegger, the core of technology is a way of being that forms human experience rather than just a tool to utilize. He warns against the blind acceptance of technical advancement, claiming that such advancement usually comes at the expense of losing a more deep awareness of being. This understanding challenges the belief that technology is value-neutral in modern debates on technology. Heidegger's work pushes us to think about the ontological effect of technologies like artificial intelligence, which might change the fundamental essence of human identity and action (Heidegger, 1954/1977).

Technology and Human Freedom

Despite his critique of technology, Heidegger does not advocate rejecting technological advancement. Instead, he calls for a more thoughtful and reflective way of relating to technology. Heidegger distinguishes between modern technology and pre-modern forms of technology, which he argues were more attuned to the rhythms of nature and human life. Pre-modern technologies, such as farming, engaged with nature more harmoniously, whereas modern technology seeks to dominate and control.

Heidegger sees the possibility of human freedom in developing a more meditative thinking that resists the calculative logic of technology. This type of thinking allows humans to engage with technology without being dominated. In the contemporary philosophy of technology, this idea has been taken up by thinkers who advocate for a more critical and responsible approach to technological development. For example, debates about ethical AI and sustainable technological practices can be seen as efforts to develop a more mindful relationship with technology that acknowledges its power without succumbing to its totalizing logic (Scharff, 2010).

Heidegger’s Influence on Contemporary Philosophy of Technology

Contemporary discussions about the philosophy of technology continue to be influenced by Heidegger's concepts. Postmodern and critical theorists examining the political and social ramifications of technological systems have adopted his critique of technological enframing. In media theory, philosophers like Marshall McLuhan and Friedrich Kittler have examined the impact of technology on human perception and communication, aligning with Heidegger's concerns over enframing (Borgmann, 1987).

Heidegger's philosophy offers a basis for understanding how artificial intelligence and automation may alter human identity and agency within their context. In a world where robots possess cognitive and operational capabilities, AI systems, which progressively undertake roles traditionally assigned to humans, challenge our conception of humanity.

Heidegger's focus on genuine human existence questions the idea that automation and artificial intelligence (AI) are totally good. Rather, it encourages consideration of how these technologies could change the fundamental core of humanity.

Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(6), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

Heidegger's writings have also shaped environmental and ecological ideas, hence His criticism of the mechanical exploitation of nature foreshadows modern worries about environmental deterioration and sustainability. Drawing on Heidegger's theories, ecological philosophers such as Arne Naess and Timothy Morton have criticized the anthropocentric and exploitative connection with nature that contemporary technology promotes (Timothy, 2010).

Conclusion

The present technological world view is profoundly and lastingly criticized by Heidegger's philosophy of technology. His observations on the requirement of contemplative thought, the forgetfulness of being, and the character of enframing still ring true in modern discussions on technology's influence on society. Heidegger's writings push us to think critically about the effect of new technologies on human life, freedom, and our interaction with the world as they become more powerful and ubiquitous. Heidegger's philosophy serves as an essential instrument for individuals navigating the intricacies of contemporary technological existence. Heidegger's critique of technology compels us to reevaluate our connection with the cosmos. While current technology may constrain human freedom and obscure other perspectives, it provides enormous benefits. His concept of enframing compels us to reflect on the impact of technology on our cognition. His concept of retaining power suggests that we may still find meaning through non-technical forms of engagement, such as art and meditation. In an increasingly AI-dominated society characterized by automation and data-driven technology, Heidegger's concepts remain relevant. His art invites us to reflect on our engagement with technology—not via outright rejection, but by embracing alternate modes of existence.

References

1. Borgmann, A. (1987). *Technology and the Character of Contemporary Life*. Chicago: University of Chicago Press.
2. Cocchiarella, C. (2019). *Heidegger on essence of Technology: what is Technology Really*. Mindful Technics. https://mindfultechnics.com/heidegger/.
3. Dreyfus, Hubert. (1991). *Being-in-the-World: A Commentary on Heidegger's Being and Time*. MIT Press.
4. Dreyfus. (2002). *Heidegger on gaining a free relation to technology*. Herbert Dreyfus and Mark Vrathall, eds., Heidegger reexamined: Art, poetry, and technology. Routledge. pp. 163-174.
5. Feenberg, Andrew. (1999). *Questioning Technology*. Routledge.
6. Heidegger, Martin. (1977). "The question concerning technology" (W. Lovitt, Trans.) The question concerning technology: and other essays (pp. 3-35).
7. Heidegger, Martin. (1977). *The Question Concerning Technology and other eassys*. Trans. William Lovitt. New York: Garland Publication. Original pub. In 1954.
8. Mir, S. A. (2025). Heideggerian Approach to the Contemporary Philosophy of Technology. Preprints. https://doi.org/10.20944/preprints202505.0206.v1.
9. Morton, Timothy. (2010). *The Ecological Thought*. Harvard University Press.
10. Scharff, R. C. (2010). *Don Ihde: Heidegger's Technologies: Postphenomenological Perspectives*. New York: Fordham University Press.