
Technology

Tension Between Neutrality and Value Attachment

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Neutrality of Technology

The neutrality of technology has long been highlighted and was referred to by Martin Heidegger as the instrumental definition of technology.^① Instrumental theory, versus substantive theory, offers the most widely accepted view of technology.^② It is common sense that technologies are tools ready to serve the needs of their users and are thus deemed neutral. Statements such as “guns don't kill people, people do” or “a knife can be used to cook, kill, or cure” are a good illustration of this viewpoint. The instrumental theory denies inherent the good and evil in technology itself but evaluates the ends for which it was used. When the use of technology has negative consequences, it is not the technology at fault but the person that misused it.^③ In this sense, technology itself is free from the value discussion.

The idea behind instrumental theory is that technologies are subject to the power of mankind. It means that technology is nothing more than a mere means to an end and has no substantive impact on its user—loyally offering services but never overwhelming its master.

The Value Attached to Technology

Technology as a Driving Force Behind Capitalism

Despite its neutrality, technology, especially innovative technology of today is generally considered as good and is recognized as a necessity to be placed great emphasis on by most societies. One reason behind this is deeply embedded in the close relationship between technology and capitalism.

Capital has significantly reshaped life as we know it. In a pre-capitalist era, trade took place when there were concrete needs for exchange, namely Commodities-Money- Commodities.^④ Concrete utility—the end for exchanges and wealth—instead of capital, was accumulated. However, as capital was increasingly popularized and legitimized, process came to take precedence over substance.^⑤ Capital is embodied in commodities that enter the market to accrue more money or to buy or create more commodities and repeat

① William Lovitt, trans., *The Question Concerning Technology, and Other Essays* (Garland Publishing, 1997).

② Andrew Feenberg, “Critical Theory of Technology,” *Tailoring Biotechnologies* 1, no. 1 (2005) 47-64.

③ Arnold Pacey, *Technology in World Civilization: A Thousand-Year History*, (MIT Press, 1991), 2.

④ Xiaoyang Tang, “Co-evolutionary Pragmatism: Re-examine ‘China Model’ and Its Impact on Developing Countries,” *Journal of Contemporary China* 29, no.186 (2020).

⑤ Robert Heilbroner, “Technology and Capitalism,” *Social Research* 64, no.3 (1997): 1321–25.

the process indefinitely. The endless pursuit of surplus value, the difference between the amount raised through a sale of a product and the amount it cost, has constructed a dynamic circular that has no counterpart in traditional societies and that enables technology to play a unique role.

Value was attached to technology since it is capable of driving productivity growth, and thus enables the circular dynamic. Technology is the chief source of new areas of profitable accumulation.^① Without rapidly growing technology, companies lose their market share and states become less competent in global competition as they will be quickly surpassed by late-comers who are equipped with advanced technologies and turned over from previous positions in the division of labor. Technology in turn provides opportunities for potential players to share the cake and is thus irresistible to those who pursue development and prosperity.

Value attachment has become universal due to the global expansion of capitalism. Capitalism has gradually expanded across the world with ever-increasing productivity, forcing countries—capitalist or non-capitalist—to attach value to productivity growth and the technology underpinning it.^② Capitalism has endowed technology with unprecedented sociopolitical importance and has elevated it to a history-shaping force in the modern era. Recognized as a powerful driver of capitalism and a critical part of modernization around the world, technology has attained universal value attachment.

Technology as Truth

Technology has not only attained sociopolitical importance, but also gradually replaced the supremacy of religion and has elevated itself to new heights during modern times. Before modernization, it was religion that had long been the common denominator in society. Due to the innate tendency of humans to pursue ultimate and fundamental values, traditional societies had shared the common goal of goodness and truth. Religion, which positions God—the supreme good and truth—at its core, stood out by perfectly responding to the general desire of people for goodness and truth. Therefore, religion obtained legitimacy as a criterion for ethics and a standard for value judgment. In line with religion, society and individuals had developed corresponding orders, which enabled them to move toward the highest end.

However, the advancement of technology enabled further scientific discoveries, some of which—especially those since the 17th century—started to challenge the existing political order built upon religion. Despite the Church’s best efforts, many were convinced by modern science and began to question whether truth is monopolized by religion. Doubts concerning the connection between truth and religion began to emerge, and modern science took a more prominent role in society. Over the years, modern science and the technologies behind it have become widely regarded as more valid and tangible than faith.

① Heilbroner, “Technology and Capitalism.”

② Tang, “Co-evolutionary Pragmatism: Re-examine ‘China Model’ and Its Impact on Developing Countries.”

Heidegger provides another explanation. According to the philosopher, modern technology is a mode of revealing, and *Ge-stell* is the essence of technology and one way of uncovering.^① According to Heidegger, technology is not about *überwinden*—overcoming—but rather *verwunden*, meaning converting into its concealed truth. And when technology reveals, every being becomes a standing reserve, and this revelation means truth for Heidegger.^②

Whether we rely on practical historical explanations or philosophical speculations, the undeniable truth is that technology has been a mighty and increasingly powerful force in modern society. Modern individuals are inclined to treat the calculative thinking enabled by technology as the only path to truth and regard it as the only truth, though truth can appear in many ways.^③ In this regard, as it has been firmly associated with truth, technology has since gained universal recognition—what Heidegger calls the “supremacy of technology.”

Tension Between Neutrality and Value Attachment: Why Mankind Struggles to Govern Technology

As previously mentioned, the neutrality of technology is widely accepted. Even Heidegger, a staunch opponent of this view, had to admit that it was indeed “correct,” just not deep enough. How, then, can neutrality and the value attachment coexist?

Heidegger’s is perhaps one of the most impressive contributions to the discussion on the actual role that technology plays in modern societies:

Everywhere we remain unfree and chained to technology. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology.^④

The precondition of neutrality, which is that technologies are under the power of man indicates they are mere instruments that serve their masters. But, to a large extent, reality suggests different. Mankind has discovered that technologies are so difficult to govern that mankind itself is eventually governed by technology. Technology has become a sociopolitical force, no longer a lever of material change.^⑤ Though intended to enlighten and inspire, technology finally blocked the truth and prevented humans from encountering the reality of the world. Furthermore, technology has become entangled with capitalism and truth, two topical issues in modern society, and governs humans both materially and spiritually.

① William Lovitt, trans., *The Question Concerning Technology, and Other Essays* (Garland Publishing, 1977).

② Rauno Huttunen and Leena Kakkori, “Heidegger’s Critique of the Technology and The Educational Ecological Imperative,” *Educational Philosophy and Theory* 54, no.5 (2022).

③ Ibid.

④ Lovitt, trans., *The Question Concerning Technology*.

⑤ Heilbroner, “Technology and Capitalism.”

The essence of technology, *Ge-stell* reveals that everything in nature is a standing reserve. But the problem is that technology reveals that humans are also a standing reserve. The moment when humans were conceived as standing reserve, the whole world was reduced to a manageable reserve.^① As Heidegger claims, the technical restructuring of modern society is rooted in a nihilistic need for power, a degradation of man and Being to the level of mere objects. Technologies have become the world. Because technology rules, we forget who we are and our fundamental freedoms; we no longer recognize the world we have lost. We lose the ability to experience space and time in any other way than through the neutral, ever-more-accurate measurement we do with rulers and clocks.^② Heidegger highlighted a different form of threat, in that technology might hinder us from experiencing “the call of a more primal truth,” whereas many other technology skeptics focus on its evident hazards. Technology not only makes it more difficult for mankind to access the truth, but it also causes mankind to forget it.

To summarize, technology is morally neutral based on the precondition that humans have complete control over it. However, due to a global quest for capitalism and truth, modern society has broadly assigned value to technology. This tension between neutrality and value attachment is deeply rooted in the fact that humans are not fully in control of technology. Instead, technology gradually removes human subjectivity and leads humanity into purposelessness, or even dictates human behavior.

① Huttunen and Kakkori, “Heidegger’s Critique of the Technology and The Educational Ecological Imperative.”

② Mark Blitz, “Understanding Heidegger on Technology,” *The New Atlantis* no.41 (2014): 62-80.

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