THE MIRROR AND THE MASK : ON THE TECHNOLOGY OF PHILOSOPHICAL MACHINES

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Why should thought be concerned about technology? Is there anything significant which philosophy alone can tell us about technology? Today, technology with its speaking and hearing aids, has become an irresistible provocation to talk about itself. Is there anything significant to be said about technoloy which the talking machines would never tell us? In my opinion a philosophy of technology should begin with these questions. Unless we clarify the immanent relation between thinking and technology, all our philosophical talk on technology would remain mere external criticism. Under what authority or right that philosophy takes hold of technology as an object of investigation?

Are these questions mere symptoms of an unwarranted hesitation of philosophy to get on with its task? It need not be so. Philosophical critique takes hold of its object through the self scrutiny of thought regarding its authority and right to do so. Kant's *Critique of Pure Reason* does this in the case of scientific knowledge. However, Kant did not take on technology as a proper object of philosophical criticism. In fact in the case of technology, philosophy had to wait till Heidegger to formulate an immanent critique of technology -- more than a hundred and fifty years after the publication of Kant's First Critique[1]. That we had to wait till the 20th century to witness the destructive potential of technology can only be a mere excuse. The unavailability of a philosophical critique should not give us the impression that the 18th century Europe was not concerned about technology. In fact technology had become a matter of concern much before Kant. Its immeasurable possibilities and demonic powers had come to the notice of all sections of the society. Luddites had by then gone on rampage against the growing spectator of technology. However, the signs of an immanent threat of technology which were so obvious even to the common man escaped the critical thinker. There seems to be a delay in the critical experience of the present making its imprint on philosophical thought. Can we philosophically account for this

delay of philosophy?

In *Critique of Pure Reason*, Kant demonstrated and delimited the legitimate authority of reason by giving one of its faculties the autonomy to pursue scientific investigation. We ought to do science and we are capable of doing it. He discovered the *a priori* conditions under which we seek knowledge. Kant also brought to light the illusions which reason generates in its own act of delegating the authority for the pursuit of scientific knowledge to one of its faculties. Reason is capable of taking the responsibility for generating these illusions -- as the price for its achievements in knowledge. Though it cannot prevent the generation of these illusions it can escape from their spell. More importantly Kant assured us that even though we can hope to know only the domain of appearance, scientific research is a worthwhile activity for human beings to pursue.

Howerver, Kant could not provide any such demonstrations and demarcations in the case of technology. In *Critique of Practical Reason* technology does not find a place as a distinct human activity. Practical reason does not take any specific interest in technical action. This could not have been an oversight. First of all, for Kant, the Second Critique is not a critique of pure practical reaosn. Unlike the use of reason in the speculative interest where reason cannot legislate itself, the practical use of reason does not generate illusions. When reason works in its practical interest it does not delegate its authority to anyone else. The illusions it generates are not due to its own operations but due to external impurities. In this sense pure practical reason does not need any critical examination. Hence when reason acts in practical interest technology - for that matter any specific domain of human activty -- cannot be a source of illusions which merits philosophical scrutiny. Either technology "as applied science" is left to the domain of 'knowing' or is included in the domain of 'doing' and subsumed under the moral imperative.

The post Kantian critical philosophy sees the cause of this philosophical silence on technology in the inability of Kantian practical philosophy to critically illuminate the concrete moral situations of modern life. Kantian formalism has been accused of being subjectivist and empty. There have been two major critical responses to what is perceived as the emptiness or powerlessness of Kantian philosophy. Hegel's critique of Kant and Marx's metacritique of Hegel pave the

way for a critical response which leads to the critique of instrumental reason advanced by the Frankfurt School. The second response comes from hermeneutic phenomenology which aims to give content to practical philosophy by bringing together Husserlian phenomenology and an hermeneutically retrieved Aristotelian ethics. Both these traditions endorse a practical turn in philosophy, though they understand this turn differently. The agenda of the Hegelian-Marxist tradition is the practical overcoming of the deformities of reason. The hermeneutic tradition aims at an ontological understanding of our being in concrete situations. Both these traditions have been vigilant against technology in their own ways.

The critique of instrumental reason advanced by the Critical Theory is directed at the bifurcation of reason in modern society and the resulting reification of our inner and outer natures. It takes as its point of departure the splitting of reason into autonomous spheres of social rationalisation. The technological age has been seen as the dominant age of instrumental rationally which leads to the domination of nature and hence of man. Horkheimer and Adorno traced this crisis of our historical present to the nature of reason itself. In the works of the contemporary exponents of this tradition, critique of technology becomes a critique of the colonisation of the life world by steering mechanisms like money and media. Despite internal differences this tradition characterises technology by the form of purposive rationality which works with a means-end schema. As we shall soon see Heidegger's critique begins by questioning such instrumental definitions of technology.

For hermeneutic phenomenology, the reason which governs human practice does not consist in the application of a predetermined law to instances. Practical reason moves from the instances to the universal, enabling one to find one's bearing in a concrete situation of action. This practical knowledge is an ontological condition for the theoretical knowledge of science and for the skill of the craftsman. This hierarchy of knowledge is maintained through a retrieval of the dispositions of the soul available in Aristotle - *sophia, episteme, techne and phronesis.*

The core of the hermeneutic reception of Aristotle is the distinction between *poiesis* and *praxis*. According to Aristotle, *poiesis* was making whereas *praxis* was doing. While *poiesis* has its end outside of the activity of making -

in the image of the product in the mind of the maker, *praxis* has its end within itself. While *poiesis* is predictable and definite, *praxis* is ambiguous and open to the fragility of human existence.The mode of knowledge proper to *poiesis* is *techne* whereas that which is proper to *praxis* is *phronesis*. The aim of grafting this distinction onto the phenomenological consciousness was to discover an ontological ground beneath the predominance of the technical activity of our age. This onto- phenomenology provides the ground for a critique of technology.

All these responses presuppose an instrumentalist or technological definition of technology. Technology is defined within a means-end schema which in turn is criticised. For Marxian and praxis philosophies, technology is essentially technological. They expect technology to respond to human existence in the same way machines respond to their operators. This conception enables them to celebrate the good uses of technology and condemn the bad uses and ask whether bad uses are avoidable errors or are essential to technology. It provokes us to search for alternative technologies. The technological definition of technology leads us to apparently contradictory conceptualisations of technology - technology as human activity which can be controlled by human choices and as an inhuman determinant of human existence. It also provides us with a set of criteria for evaluating the merits and demerits of technology - the well being of man, the safety of the planet, the survival of rare species of animals and plants etc. However, in the last instance, all these diverse responses form a meta-technology of technology. Philosophy, in making these pronouncements assumes that it is uncontaminated by the menace of technology. But so far as philosophy precludes such contamination its criticism of technology remains external.

It was Heidegger who noticed that the essence of technology is not technological.Technological definition, instead of freeing us, only advances the technological. However, nothing is more difficult for philosophy than posing the question of the essence of technology. Heidegger realised that it is a mistake to think that things would offer their essences to philosophical questioning without resistance. So he made the stubborn refusal of technology to thought as the guiding clue of his investigation. In order that technology shows a reciprocal concern for the question concerning its essence, the philosopher needs to establish a free relationship to it. Hence, for Heidegger, a thoughtful encounter with technology becomes the practice of freedom.

At the outset we shall ask what motivated Heidegger to choose technology as the locus of thinking. Of course, Heidegger came to experience that "everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it". But by the time Heidegger wrote his essay on technology this experience had become common place. Humanity had already suffered the worst consequences of its bondage to technology and amidst the loud cries and criticisms the words of the thinker would not have been a solace or a solution. Still what was the motivation for the thinker to wake up late from his slumber and ask about technology?

By posing the question of technology Heidegger was in fact responding to a crisis of thinking as much as to the crisis of technology. His untimely meditations on technology are less focused on airplanes, television and coal mines than on a certain resistance experienced along the path of thinking itself - the resistance of metaphysics. Both technology and the poetry of Helderlin become indispensable for thinking which yearns to free itself from its own history. So thinking takes aim at technology not to pass a judgement on it but to see in it a clue for the practice of freedom. In other words philosophy turns towards technology in search of a philosophical clue. Here questioning is not merely a theoretical endeavour. It opens up human existence to technology.

Of course we have to begin with the technological definition of technology - that is the only definition we seem to have - and think it through to its provenenance. Hence Heidegger pursues the instrumental to its essence. Our idea of the instrumental is a distorted or a worn out version of what the Greek experienced in word *techne*. The Greek used the same word *techne* for the excellence involved in the production of both arts and crafts - *poiesis*. In Heidegger's 'destructive retrieval' of Greek concepts *Poiesis* had nothing to do with the practical performance of making. It was a mode of revealing - revealing of whatever that does not bring itself forth.

However, this originary experience of the Greek word is denied to us. In fact technology is this very denial of the originary experience of the word. According to Heidegger, technology is no longer a bringing forth but a challenging forth. More than production it is provocation. Heidegger's term for the revealing that holds sway in technology is "enframing" (*Ge-stellen*). As enframing technology sets up nature and also man to stand by on call for further

ordering. Within the frame of *Ge-stellen* they are revealed as standing reserve.

What is the mode of revealing specific to enframing? Heidegger distinguishes the production involved in framing from that of forming. Forming of matter is the mode of being of equipment. Machines are not equipment nor framing is forming. Technological production is not the imposition of forms on inert matter. A hammer or a pair of shoes are pieces of equipment but an aeroplane waiting to take off is a machine. What is the difference between them?

An equipment receives form with regard to a certain use. Such usefulness is never assigned or added on to the equipment. ''Usefulness is the basic feature from which this being regards us''. The equipmentality of the equipment consists in this usefulness. But this usefulness rests in ''the abundance of an essential Being of the equipment. For Heidegger the abundance which sustains the equipment is reliability. Reliability gives us the security to handle the equipment without reflection and explicit knowledge. ''The repose of equipment resting within itself consists in its reliability. ''But unlike the equipment, machines are neither the making of man nor can their essence be understood in relation to use. Machine, like a painting is a framed being. What is the mode of being of enframing and the abundance on which it rests? For Heidegger, the surplus that sustains technology is not that of reliability but of ambiguity. For Hegel, the machine was an autonomous tool. The Hegelian teleology of technology unfolds from the tool to the machine. Heidegger rejects both these technology and teleology.

Enframing should be distinguished from exploitation. Technology enframes nature; it does not exploit. First of all exploitation brings in a means-end schema which is not pertinent to technology. Secondly, the concept of exploitation presupposes the determination of value as the materialist predication of the subject. According to Heidegeer, technology is the unbridled installation of the subsect. Technology effects the pure value positing element as the subject. There is no subejct as the producer of value who is subjected to exploitation. The subejct of technological production is not a suffering agent but an overpowering one. It produces nature as a reserve.

The essence of technology is ambiguous or Janus-faced. Technology is at once the danger and the saving power. This ambiguity is not due to any slackness on the part of technology or the thinker. It is through totalisation, by

setting upon the whole nature as standing reserve that technology renders itself ambiguous. Howerver, we shall not think that by designating this ambiguous essence as ''enframing'' we escape from the ambiguity itself.

No sooner than Heidegger tries to name the revealing of technology, language seems to refuse him. The voice of Being begins to sound monotonous.

> The fact that now, wherever we try to point to modern technology as the revealing that challenges, the words ''setting- upon'', ''ordering''. ''standing-reserve'', obtrude and accumulate in a dry, monotonous, and therefore oppressive way, has its basis in what is now coming to utterance.[2]

According to Heidegger, language brings beings to words and appearance. ''Only this naming nominates beings to their Being from out of their Being''. However, the names the thinker invents for technology seem to conceal the Being of technology. This is not due to the lack of the ''poetic essence'' of the thinker or of thinking but due to the nature of unconcealment prevailing in technology. When it comes to enframing - the master word for technology - Heidegger realises that he is really twisting the arm of language.

> According to ordinary usage, the word *Gestell* [frame] means some kind of apparatus, e.g., a bookrack. *Gestell* is also the name for a skeleton and the employment of the word *Gestell* [enframing] that is now required of us seems equally eerie, not to speak of the arbitrariness with which words of mature language are so misused. Can anything be more strange? Surely not.[3]

However, the thinker's daring to invent unfamiliar words to name the essence of technology is not pointless. Misuse of language has been an old custom of thinking.

> We, late born, are no longer in a position to appreciate the significance of Plato's daring to use the word *eidos* for that which in everything and in each particular thing endures as present. For *eidos*, in the common speech, meant the outward aspect (*Ansicht*) that a visible thing offers to the physical eye. Plato exacts of this word, however, something utterly extraordinary: that it names what precisely is not and never will be perceivable with physical eyes. But even this is not the full extent of what is extraordinary here. For *idea* names not only the nonsensuous

aspect of what is physically visible. Aspect (*idea*) names and also is that which constitutes the essence in the audible, tasteable, the tactile, in everything that is in any way accessible. Compared with the demands that Plato makes on language and thought in this and in other instances, the use of the word *Gestell* as the name for the essence of modern technology, which we are venturing is almost harmless.[4]

The essence of technology comes to language in the word 'enframing'. But this word belongs to a language of error and is open to misinterpretation. It appears that both thinking and technology are entwined in an essential errancy and ambiguity. By inventing the word ''enframing'' Heidegger is not providing us with a correct description of technology. Instead, this word helps us to step into the ambiguity of language and technology. It releases us to the mysterious danger of technology. This releasement enables Heidegger to say at once ''yes'' and ''no'' to technology.

> We let technical devices enter our daily life and at the same time leave them outside, that is, let them alone as things which are nothing absolute but remain dependent upon something higher. It would call this comportment towards technology which expresses ''yes'' and at the same time ''no'' by an old word, releasement towards things.[5]

According to Heidegger, technology with its ambiguous essence presents or depicts a certain ambiguity that characterises Western thinking on essence since Plato. Like the Van Gogh painting of the peasant shoes displays the equipmentality of the shoes - setting its truth to work - technology seems to put the essence of thinking on display. Technology is thought displayed within frames or on state. (The *stellen* of *Ge-setellen* retains the echo of *Darstellen* which means staging.) In this sense enframing is not confining something within a frame. It is an ambiguous production or revealing. This frame is a collaborative work of thinking and technology. The frame is the locus of exchange between metaphysics and technology. The essence of technology mirrors the philosophical question of essence. This relationship between thinking and technology is a curious one. By putting on the appearance of the philosophical production, the essence of technology thoroughly conceals its ambiguous essence. By provoking philosophy to question it, technology hides itself. Philosophy is the mask of technology. However, philosophy, as the game of unmasking, is the most easily penetrable mask. As philosophy, the mask is at once the clue to what it hides.

Van Gogh's painting of the peasant's shoes is a work - a work of art. It depicts or sets to work the equipmentality of the shoes. In a similar way can we say that technology, which depicts the truth of thought is a piece of work? Heidegger's answer would be ambivalent. It is a work in the sense that it discloses the truth of thinking. But its depiction or disclosure is so thoroughly distorted and concealed to merit the statre of a work. The essence of technology, precisely because it has entered into a relationship with thought - or it speaks to the thinker even if through a language of error -, is fragile and precarious. What is more dangerous and more effective than hiding behind the veil of truth?

According to Heidegger, Nietzsche is the first thinker to be contemporaneous with technology. In him thought and technology strike a perfect accord. Nietzsche raised the power of fiction to unconditional installation and allowed it to dominate truth. He discovered the fictionalising essence of reason as the power to posit the same over chaos. He understood this discovery as the inversion of Platonism which privileged truth over fiction. Nietzsche could think the most self-contradictory thought - truth is a necessary illusion - because in him metaphysical thinking simulates the metaphysical concept of truth. Thinking which simulates itself, becomes contemporaneous to the age of technology where life makes itself known through propaganda wars, in sheer facade and pomp - through simulation. Nietzsche founds philosophy as art when art has become mechanical or electronic reproduction or simulation. The thought of Nietzsche and technology are mirror images of each other - images of the Same. If questioning is the piety of thought, technology is the best answering machine. In the age of technology everything is open to question. Against the historical articulation of metaphysics, technology provides the metaphysical articulation of history as modernity. When metaphysics proposes the calculating subject, technology grants calculability the status of the subject rendering it frighteningly incalculable. In all respects thinking and technology imitate each other.

This imitative relationship is thoroughly misunderstood when we characterise technology as an imitation of nature or of man. Nowhere else is this misunderstanding more acute than in the philosophical debates on Artificial Intelligence. Before the philosophical debates on the relation between man and machine, the relation between philosophy and technology needs to be clarified. In fact by deciding to think the man-machine issue as a response to a certain technological invention - computer - we have already surrendered the claim of

thinking to technology. The debtate on "whether machines can think?" only hides certain machines which are already at work in thinking.

Perhaps, the most probable place to discover philosophy imitating technology is where philosophy thinks the question of imitation. Imitation or mimesis as mere reproduction has always invited the contempt of philosophers. At the very beginning of western metaphysics, imitation was delivered the severest blow by Plato himself. While Plato's characterisation of art as imitation has been criticised, his privileging of *poiesis* over mimesis or production over reproduction continues to remain unexamined. Living in the golden age of Greek art Plato responded to his present by decreeing the expulsion of art from the domain of *Idea* and the ideal state. In a similar way, today the triumph of technology comes to thought in the most negative terms. We condemn Platonism only by repeating it. Is there a machine at work within these reversals and repetitions?

For Plato, *eidos*, was the manifestation of true being. The apparent being- *eidola* - manifests being only in an impaired manner. Hence the table made by the carpenter is at one remove from the *eidos* of the table. The table painted by painter is twice removed from the idea and suffers a diminution of being. Howerver, while establishing this ontological hierarchy which is against art, Plato, in fact, grants being to the apparent being or the semblant. According to Heidegger, Nietzsche develops this Platonic slip into a style of philosophical thought. This style makes him contemporaneous with the age of technology where the semblant comes to dominance.

From Plato to Nietzsche, thought is a machine that works by fits and starts. Plato put this machine to work when he tried to think from the production by the craftsman to the production by the artist. While a craftsman can master only the art of making one or at the most a few things, a painter can produce almost everything, at the stroke of his brush without mastering any of the crafts required for the production of his models. How do we conceptualise such a production? All that we need to do is a thought experiment. Think about a man who produces everything that every other craftsman is able to make. He would be a wonder worker - a man of enormous powers. He could produce all things, himself and the god - 'anything and everything'. This is not a mere fantasy. Each of us are capable of such fantastic production. "you can do it quickest if

you just take a mirror and point it around in all directions''. By turning the mirror ''you will quickly produce the sun and what is in the heavens; quickly too the earth; and quickly also you yourself and all over living creatures and implements and plants and everything else we mentioned just now''.[6]

According to Plato, art is this wonder work. The artist produces everything and anything. In this sense artistic production is the encompassed consummation of all production. The mirror technology imitates the philosophical production of the idea. Art drives this imitation to the limits. The artist imitates the trajectory of philosophical production from the particular to the universal by moving from the making of specific things to the making of everything and anything.

This mirror-machine which boosts up production has always been at work in the speculative production of thinking. By imitating speculative production art is mirroring the work of the *speculum* itself. However, art while imitating and extending speculative production without limits and reserve also impoverishes it. The productive imitation of the speculative mirror suffers and falls into mere mirror work when imitated by the absolute mirror work of art. Mimesis is this absolute and mad mirroring which is at work in all production.

Mimesis suffers and falls in stature only in so far as it installs the philosophical machine - mirror - to do the work. The mirror ensures that all manners of production imitate the philosophical production. However, the mirror in the hands of a craftsman is only an equipment or tool. Only in the hands of an artist who imitates philosophical production by turning the mirror around with infinite speed and in all directions that it begins to function as a machine. The transformation of equipment into the machine does not take place without the philosophical touch. In this sense the credit for the invention of the machine goes as much to the philosopher as to the technologist. However, the philosophical moment is not the one which as Hegel thought would make the tool autonomous. Instead it drives every equipment to delirium. It is this delirium that makes the mirror to conceal and to distort. Mirror, once mechanised, becomes a mask. This mirror-mask is the primitive machine. There is no philosophical essence which is not already contaminated by the technological. There is no technology without the collaboration of the thinker. Such is partnership between thinking and technology.

Man as a thinking and doing being has always been placed at the intersection between thinking and technology. As we have seen, Heidegger 'dislocates' this interface to a mirror-mask machine. The precarious position of man with respect to this interface is attested by the prevailing anxiety over the immanent possibility of machines taking over or dominating man. While the mechanical imitation of man's bodily functions is seen to be useful the simulation of the power of thinking is perceived as a threat. As we have indicated earlier, by posing the question ''can machines think'' as a question about the essence of man and machine we fail to interrogate the essence of imitation which is already at work in thinking. Howerver, technology has gone a step ahead of philosophy in affirming the importance of imitation by acknowledging the cognitive status of 'modelling'.

Scientists often build models of the phenomena which they want to understand. Very often these models are treated as mere heuristic devices. Once they throw some light on the phenomenon, they are discarded as mere metaphors or models. We are told not to mistake models for what they represent. For example, an Artificial Intelligence system, modeled on human thinking, though it can perform many human tasks more efficiently than human beings, is only a mere model. Those who advocate the triumph of technology too erase the specificity of the model. The outcome of the AI debate depends only on the conceptions of essence of man and machine and the question about the nature of modelling is not even posed.

Derrida's scattered reflections on the machine could be read as attempts to invent a mechanics of thinking which would reexamine the relationship between man, machine and mimesis. We shall briefly consider his essay *Freud and the Scene of Writing*[7] to indicate the possibility of this new terrain of investigation.

Freud tried out several mechanical models to represent psychic functions. On the one hand, psychic functions are representational. On the other hand, Freud is searching for an adequate representation of these representational functions. He wanted a machine which would run by itself, like the psyche. But as Derrida notices, Freud's project failed for ''what was to run by itself was the psyche and not its imitation or mechanical representation. For the latter does not live''.[8]

The model is a mere machine, whereas the psyche is alive. This assumed opposition between life and death seems to ground the distinctions between man and machine and also between the original and the model. The limit of resemblance between the machine and the psyche is prescribed in the inimitable essence of the psyche itself. Derrida gives up these reassuring distinctions and confronts the failure of Freud with a new question.

> What questions will these representations impose upon us? We shall not have to ask if a writing apparatus - for example the one described in the "Notes on the Mystic Writing Pad" - is a good metaphor for representing, the working of the psyche, but rather what apparatus we must create in order to represent psychical writing, and we have to ask what the imitation, projected and liberated in a machine of some thing like psychical writing might mean[9].

Freud failed to question the very possibility of the machine even beginning to resemble the psyche. This question would have uncovered the very possibility of a rhetorics and didactics of the psyche. According to Derrida this possibility of imitation, of metaphor and of mechanisation invades and contaminates the very essence of the psyche.

> Metaphor as a rehetorical or didactic device is possible here only through the solid metaphor, the "unnatural", historical production of a supplementary machine, added to the psychical organisation in order to supplement its finitude. The very idea of finitude is derived from the movement of the supplementarity.[10]

Supplementarity as the relation between two apparatuses is the principle of the mirror-mask machine. Psyche is imitable by machine only to the extent that it is an originally connected to a supplementary machine. Technology is not a mere application of cognitive representations or models because representation and modelling cannot even begin to work without the machine. It is within this supplementary machine that thought encounters technology.

NOTES

1. Heidegger, Martin "The Question Concerning Technology", in *Basic Writings*. ed. D. F. Krell, Routledge and Kegan Paul, London, 1977. pp. 288-317

2. *Ibid*, p. 299.

3.   *Ibid*, p. 301.

4.   *Ibid*, p. 301.

5.   Heidegger, Martin *Discourse on Thinking*, trans. John Anderson and E Hans Freund, Harper and Row, New York, 1959. p. 54.

6.   Heidegger, *Nietzsche*, Vol. 1. trans. D. F. Krell, Harper and Row, New York, 1979, p. 177.

7.   Derrida, Jacques, ''Freud and the Scene of Writing'', *Writing and Difference*, Routledge & Kegen Paul, London, 1978, p. 196-231.

8.   *Ibid*, p. 227.

9.   *Ibid*, p. 198.

10.   *Ibid*, p. 228.