

# Individuation, Cosmogenesis and Technology: Sri Aurobindo And Gilbert Simondon

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**Abstract:** The turn of the 19<sup>th</sup>/20<sup>th</sup> centuries saw a number of philosophers of conscious evolution emerging from different cultural backgrounds. This paper argues that this phenomenon, which has sometimes been seen as a philosophical consequence of Darwin's evolutionary theory in the life sciences, is more importantly related to the enhanced scope of human subjectivity made possible by technology at this time. Yet technology remains the "unthought within the thought" of its times, an ambiguous presence, derided for its alienating effects and praised for its enhancement of human capacities and comforts. A later generation of thinkers, belonging to the post World War II era renews the thought of conscious evolution, now in engagement with new technologies of a planet spanning scope. This essay considers the ideas of these two generations of thinkers, focusing on Sri Aurobindo (1872-1950) from the earlier generation and Gilbert Simondon (1924-1989) from the more recent era, questioning the consequences of contemporary technology in their thoughts, goals and practices. In developing the historical continuity of ideas, it tracks the question of technology from the earlier to the later generation, highlighting the understanding of both its promise and its ills and engaging with it the possibilities of conscious evolution.

**Key Words:** Conscious Evolution, Cosmogenesis, Cosmogenetic Individuation, Gilbert Simondon, Henri Bergson, Marshall McLuhan, Sri Aurobindo, Technology, Teilhard de Chardin.

## Cosmogenetic Individuation

The turn of the 19<sup>th</sup>/20<sup>th</sup> centuries saw an implementation of what has been called the Second Industrial Revolution marked by universal electrification, mass production and the birth of the world market. This brought the post-Enlightenment episteme into the properly modern phase of its actualization, the practical horizon of a global humanity. For the first time in human history the assumption of a species identity for all humans and the yoking of all humanity in a common global life made itself a ubiquitous anthropological possibility. The ontological consequences of

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such an epistemic change were dimly grasped by the leading thinkers of the time, in their varied ramifications. These included ideas which projected a global expansion of human subjectivity, read retrospectively back to cosmogenetic processes.

It should be noted that Enlightenment philosophies had already arrived at a formalization of an evolutionary ideology in Hegel's philosophy of history, which saw an involved rationality in Matter and a cosmic Time Spirit (*zeitgeist*) working out its experiments in synthesizing opposites towards the emergence of the Logos as free thought in social and political life (Hegel, 1975). It is important to note that creature agency is undervalued in this process, the progressive experiments of the *zeitgeist* leave their results culturally fossilized moving on to other "races" (an east-to-west drift) and human subjectivity remains bounded within predetermined limits.

Nietzsche's refusal of ideological truths on the grounds of their being historically contingent and politically established and his exaltation of human agency as an effect of a cosmogenetic will to power was largely a reaction to Hegel's deterministic evolutionism. The new evolutionary philosophies which arose through the last decades of the 19th century and over the first half of the 20th century were closer, in this regard to Nietzsche in positing immanent forms of evolution in which creature/human agency played a key part and human subjectivity underwent radical change/expansion. It should also be noted that such philosophies arose in the wake of Darwinian evolution, but whereas the latter was restricted to morphological change based on anatomico-functional adaptations in which agency or consciousness played no part, the new philosophies recognized changes in consciousness underlying evolutionary processes and resulting from immanent ideas actualized through acts of will.

Three such thinkers of this period are the two Frenchmen, Henri Bergson (1859-1941) and Pierre Teilhard de Chardin (1881-1955) and the Indian, Sri Aurobindo (1872-1950). In looking for a common key to describe the works of these thinkers, I would use the phrase "cosmogenetic individuation." "Cosmogenesis" is a term used by Teilhard (1959) to refer to a process of increasing complexity, self-organization and self-awareness of the cosmos. "Individuation" seems more common in its usage but deceptive due to its varied connotations and inflections. Presently, this term is more usually associated with C. G. Jung (1971), a psychological emergence of singular personhood out of the amorphous Unconscious and its movement towards universalization. Though such a process could have practical similarities with individuation as theorized by more recent philosophers like Gilbert Simondon (1924-1989) (Simondon, 2005; Scott: 2014) and Gilles Deleuze (1925-1995) (Deleuze, 1995), these latter include an ontological foundation to individuation which is absent in Jung. Bergson (1988) uses the term to refer to creative differentiation of instances, and Teilhard and Sri Aurobindo, though they don't explicitly use the term, refer to ontogenetic processes akin to individuation. Teilhard (1959), for example, writes of hominization, personalization, anthropogenesis and christogenesis, as roughly synonymous terms to a becoming-individual of the cosmos, while a similar evolution towards universalization of the person-element (*purusha*) in the cosmos is envisaged by Sri Aurobindo (2005, pp. 922-952) in what he calls psychization.

## Metaphysics of Conscious Evolution

In Teilhard (1959) and Sri Aurobindo (2005) a cosmic/transcendental principle (*noosphere* or Supermind respectively) is immanent in all entities in the cosmos, and seeks to individuate itself through them. In the case of Bergson (1988), a creative immanent consciousness in the cosmos and all its creatures, the *élan vital*, multiplies diversity and pushes towards an increasing complexity that can be intuited and be the source of knowledge and action in each of its creatures according to their orientation and capacity. However, though such an ontogenetic foundation evades the hubris of anthropocentrism, it empowers the individual, variously locating the evolutionary will as creature agency.

This is where these thinkers differ from philosophers of deterministic history, such as Hegel, for whom cosmogenetic agency, even when immanent, can be said to be located in a transcendence within the immanence. In these thinkers, one finds both these dimensions of transcendence and immanence assuming active potency, along a gradient in which Teilhard can be seen as slanted closer to the transcendence and Bergson towards the immanence. Thus all these thinkers can be thought of as panentheistic in various ways. Of the three, Sri Aurobindo, while acknowledging an immune transcendence, yet posits two other forms of self-perception of this transcendence, an objectified self-perception (Matter as cosmic immanence of the Subject); and a self-multiplied prospection as every individual possibility within this immanence, or in other words, the complete immanence of conscious Being (Brahman) in every particle of the material cosmos, thus representing individual agency in conjunction with cosmic agency (Sri Aurobindo, 2005, pp. 309-335). While individual agency has been secondary to cosmic agency ("Nature") prior to the appearance of the human, individualized consciousness in the human represents a new level of independence from cosmic agency and thus able to determine its own destiny superseding Nature's will (Sri Aurobindo, 2005, pp. 856-879).

Sri Aurobindo's theological metaphysics has profound correspondences with Teilhard's Christology, founded on an exile and redemption mythos. In Teilhard's mystical Christology, the "redemption" is not "completed" by the historical personage of Christ, but this historical event becomes a symbolic promise for its multiplied realization in human individuals leading to a cosmic "return" through Christogenesis in the individualized collective realization of the "Omega Point" (Teilhard de Chardin, 2001). The separation from Origin implied in a mythos of exile is also present in Sri Aurobindo, though, founded in the Vedic theme of Sacrifice as expressed in the Purusha Sukta, such a separation is not an "act of Evil" burdened on the human and thus requiring redemption, but rather an "act of God" on the body of God, and thus a self-sacrifice, leading to an ontology of Separation in which, nevertheless, the One becomes self-multiplied as monadic immanence (Sri Aurobindo, 1999, p.106; Alfassa, 1977/2004, p.74). Similarly, instead of "redemption" then, the evolutionary drift of such a cosmic condition would be a recovery of cosmic and transcendental Oneness through identification of each individual with the fullness of Purusha, reconstituting its sacrificed Body in a collective manifestation which Sri Aurobindo referred to as a "divine life" on earth (Sri Aurobindo, 2005, pp. 1051-1108).

However, as mentioned in the previous paragraph, individual agency coexists with cosmic agency in Sri Aurobindo's metaphysics. This implies a theology in which the Vedic Sacrifice of Purusha is accompanied (in fact, preceded) by the Sacrifice of Prakriti, creating the substantial

and operational cosmic condition of Inconscience in which the fragmented dismemberment of Purusha may seed itself (Sri Aurobindo, 2012, p.17). This cosmic latency of Consciousness self-constrained as Inconscience becomes the basis for the evolution of Nature. According to Sri Aurobindo, all evolution is accomplished through the double process of memorial aspiration (ascent of consciousness) and responsive Grace (descent of consciousness) (Sri Aurobindo, 2012, p.3; Sri Aurobindo, 2005, pp.730-753). The stirrings of the memory of Consciousness within the Inconscient turn into an ascending aspiration which invokes the "descent" of successive gradations of Consciousness, each with its characteristic properties marking its difference in kind. Such a successive gradation of Consciousness in Nature (Prakriti) based in the Inconscience of Matter affords increasing possibilities of freedom and self-manifestation (*swayambhu*) to the individualized immanence of Purusha in each of its dispersed units. Thus the evolution of Prakriti affords the evolution of Purusha (Sri Aurobindo, 2005, pp. 272-274).

## Evolution and Psychological Praxis of Sri Aurobindo

The Purusha is present in the particulate appearance of Matter as physical or material purusha; in discrete Life forms as vital purusha and with the appearance of Mind, as mental purusha. Each of these successive forms of purusha is more "awake" than its predecessor, better able to experience its freedom and sovereignty from its constraining bounds of prakriti. In the human, the co-existence of physical, vital and mental prakriti implies the triple presence of physical, vital and mental purushas, a compound existence in which the freedom of the intelligence (*buddhi*) from the rest of the human constitution enables a higher degree of potential freedom of the mental purusha amounting to the possibility of a transcendence of Nature (Sri Aurobindo, 2005, pp. 856-879). Such a possibility of purusha's freedom in one of the constituents of prakriti results in what may be called an anthropogenesis, a new form of ontogenesis (it should be noted that ontogenesis and anthropogenesis are terms more common to Teilhard than Sri Aurobindo; nevertheless, I have used these terms since I feel them to be appropriate). This anthropogenesis is the birth of personhood, described by Sri Aurobindo in terms of the appearance of a new and more centralized dimension of immanent purusha in the human, capable of integrating the physical, vital and mental purushas and called by him "psychic being" or "soul personality". At this point, Purusha's evolution is capable of taking an independent turn, no longer dependent on the evolution of Prakriti but able to transcend, master and transform Prakriti (Sri Aurobindo, 2005).

Being free of the burden of guilt, Sri Aurobindo's evolutionary monadology may be seen as an individualized "adventure of consciousness and joy," and in this respect closer to Bergson's (and Nietzsche's) personal exercise of a cosmic creativity (*élan vital*). It is also in this respect, that such an exercise of personal creative will has been theorized by Sri Aurobindo as a praxis discursively continuous with long traditions of Indian yoga (Sri Aurobindo, 1999, pp. 41-52). Thus, of these three thinkers, Sri Aurobindo provides the most developed methodology for a cosmic and transcendental expansion of (post)human personhood, based in the capacities of the source of individuation, the psychic being, to integrate the personality, identify itself with cosmic being (Overmind) and finally transcend cosmic existence in an identity with a transcendental source, the Supermind (Sri Aurobindo, 2005, pp. 922-952). Sri Aurobindo refers to this process as "the triple transformation". Yet, as one can see from the above, such a process is intensely

psychological, a "practical psychology" (Sri Aurobindo, 1999, p. 44) as Sri Aurobindo terms it, which seems to minimize or invalidate any concern for social or cultural conditions.

Such an appearance, however, is misleading and arises due to the disciplinary specialization of discourse as an epistemic aspect of modernity. We have noted how Sri Aurobindo's metaphysics involves relationally, the evolution of universal conditions (prakriti) and individuation of consciousness (purusha). This relationality does not disappear with the emergence of the human. If the practical psychology of the triple transformation is concerned primarily with ontic evolution of the Purusha as outlined in Sri Aurobindo's philosophical (*The Life Divine*, Sri Aurobindo, 2005) and "yogic" (*The Synthesis of Yoga*, Sri Aurobindo, 1999) works, Sri Aurobindo's social and political texts delineate the continuing evolution of prakriti at the level of human society, moving towards global conditions of human unity, a trajectory fraught not merely with promise but danger, needing political and ethical negotiation through its relationship with human agency (Sri Aurobindo, 1997). But the implications of such ethical and political agency are easily lost sight of, due to the above-mentioned separation of his social and psychological texts and the privileging of the latter over the former.

## Social Praxis and Technology

This continuing evolution of prakriti at the level of human society and civilization in its varied relations with human choices (evolution of purusha) can be elaborated into a critique of modernity, something Sri Aurobindo himself undertakes to some extent in his social and political texts (Sri Aurobindo, 1997, pp. 15-221). He presages a phase of globalization led by capital, and outlines the dangers of "economic barbarism" and fascist politics (pp. 44-54; pp. 73-81). He predicts the eventuality of a world government and analyzes the struggles of individual and subcultural agency in the face of homogenizing or hegemonizing tendencies (pp. 279-578). He stages the opposition of superpower politics and federalist participation (pp. 505-547). He sees the importance of promoting the forces of fraternity and internationalism over the ideological investments of state controlled planning or aggressive nativism or religious fundamentalism (pp. 548-570). At the microsocial level of the individual and the community, he promotes increasing autonomy with direct individual participation in shaping the communitarian life moving in the direction of a spiritual anarchy. Yet, as I discuss in the next paragraph, the ubiquitous mediation of technology as the sign of contemporaneity, emerging after his time, is not independently addressed by Sri Aurobindo.

While a comparative study of these three thinkers would be very interesting (and has been attempted in part by several scholars) what concerns me in this essay is the contemporary relevance of the paradigm or episteme that finds form in these thinkers. In this regard it is the unthought within the thought, the obvious medium of existence that often makes possible the perception of an idea but remains invisible or imperceptible, and concretizes itself over time demanding a new engagement. Such is the place of technology in the articulation of these thinkers. One may say that the question of human subjectivity and its transformations (the "who") accompanies the thought of post-Enlightenment modernity from its inception as part of its anthropological project. But it is tied to the question of the transformation of the world (the "what") as it arises from its knowledge (science).

This project of world transformation is attributed to the application of science; i.e. technology—and thus the appearance of new assessments of the relation of human subjectivity to the cosmos with the advent of new technologies is almost to be expected. Yet the possibilities opened up by the new technologies on human consciousness are elided in the new philosophies of conscious evolution and/or the evolution of consciousness. To be fair to these philosophers, it isn't as if they ignore the advances of science and technology. Along with other humanistic thinkers of this period, they hold an ambiguous view of technology, part critique of its alienating and destructive effects from/on nature and part admiration for its productive and world-uniting possibilities. But technology does not receive a systematic treatment in relation to the possibilities of human consciousness from any of these thinkers.

## Heidegger and the Question Concerning Technology

Indeed, it is only after the passing of this generation of thinkers and more properly from the 1960s that technology becomes increasingly addressed with reference to consciousness, due to its ontological ubiquity. Perhaps the first serious and systematic consideration of this kind was Martin Heidegger's essay "The Question Concerning Technology" published in 1954 (Heidegger, 1982). In this essay, Heidegger seeks out the "essence of technology" and finds it not in technology itself but in the kind of revealing it makes possible. Heidegger relates technology, in its essence to fabrication, a "making" which is "indebted" to four kinds of "causes"—the earth as a provider of raw materials, a form of self-disclosure and gifting in relationship to the human (material cause); the history of cultural forms, related to the function it serves (formal cause); the larger contextual goal or terminal function within which the fabricated object serves its function, ultimately a sacralizing or sacrificing to a transcendent realm or order (final cause); and the human fashioner who addresses all these causes and shapes the functional object (efficient cause) (Heidegger, 1982, p. 6).

Attention to all these causes or "obligations"/"debts" makes the work of technology (*techne*) equivalent to a work of art, or invoking Heidegger's Greek term, *poiesis* (Heidegger, 1982, pp. 8, 34). Modern technology, Heidegger avers, does not respect the material cause or final cause. It challenges and sets itself upon the earth and it ignores the sacralizing function of aspiring for the Transcendent (pp. 9-10). Heidegger uses two terms, "enframing" (*gestell*) and "standing reserve" (*bestand*) to describe the alienating and violent form of disclosure involved in modern technology (Heidegger, 1982, pp. 11-13), marked by information exploitation, ordering all subjects and objects in the cosmos as static resources always available to be put to one's bidding.

This alienation from the temporality or seasonality of the earth and its power to disclose the self-manifestation of Being; as well as its rupture from the sacred sphere is the chronic malaise of our times, the epistemic violence of modern technology. Enframing thus refers to an attempt at a spatial reduction of cosmic contents, a mode of existence in which all things are objectified as resource, shorn of the mystery of temporal disclosure. Standing reserve is another way of addressing the status of beings or subjects thus reduced, objectified, commodified and exploited. As a mode of existence therefore, modern technology is seen by Heidegger as modernity's episteme, utilizing the methodology and systemic objectifying descriptology of science to "gather" reality into a single flattened frame so as to order its contents at will (Heidegger, 1982, p.17).

Such an ontological critique of technology puts us in view at once of both the globalization and alienation of our times. An abstract absolute description of the world usurps the place of the world. Modern and contemporary continental philosophy leans heavily on this insight of Heidegger. It becomes the basis for Habermas' "colonization of the lifeworld" (Habermas 1984), and of Jean Baudrillard's "virtual reality" (Baudrillard, 1994). Looked at in terms closer to us, in the key of contemporary technology which Heidegger was not privy to, one could say that what Heidegger describes here is a mode of existence where reality is perceived as an omni-database with all entities classified and organized in terms of their relations and properties, waiting to be "harvested," "utilized" or "exploited" by whoever had power to access this construct. Undoubtedly, such a view seems bleak, holding little comfort or positive potential for human subjectivity.

In relation to the philosophers of conscious evolution I started with, if human subjects are brought without exception under a regime of objectification and potential exploitation, they have little wriggle room to expand subjectively and the promise of an integration and cosmization of the human subject would seem an impossibility. Of course, such an ontology would also be uneven affording degrees of freedom and privilege in access and exploitation of the "standing reserve." But under an universal ontology, even such subject positions of privilege in power and capital would be constrained to the maintenance of the ontological order. Heidegger's appeal is a return to *poiesis*, respect for the four causes or debts that human beings find themselves embedded in all their fabrications (*homo faber*) or technological undertakings (*techne*). This would need a "wresting" of agency from the established order of our times and the re-establishment of a more "authentic" mode of existence in the individual and the collective, the creation of a new "I" and "we" that resists the automatic gravitation of slippage into the "they" (Heidegger, 1962, p. 415).

Apart from this foregrounding of technology as the epistemic ontology of our times, in situating beings existentially within a temporal horizon constituted by the self-disclosure of Being, Heidegger created a language that folded interiority in historicity, thus articulating simultaneously the realities of individual and society. The wresting of *poiesis* from an objectified *techne* is a praxis historically embedded within the modern horizon of Being. Such a praxis can be related to the practical psychology of yoga, a revolutionary transformation of subjective consciousness making possible a new horizon of Being's self-disclosure. This overcoming of the disciplinary specialization and separation of psychological and sociological studies marked a departure from the considerations of an earlier generation, like that of the philosophers of creative evolution we have considered, such as Sri Aurobindo, whose works had been produced in disciplinary isolation, as mentioned above, much to their detriment. Continental philosophers, such as Michel Foucault, Jacques Derrida, Pierre Bourdieu and Gilles Deleuze, who have followed in the wake of Heidegger, have continued an articulation that undercuts such disciplinary boundaries.

Heidegger's originality and break with the past may also be seen in his rejection of metaphysical idealism in favor of an ontology grounded in phenomenology. This turn in Heidegger may more properly be credited to his teacher, Edmund Husserl, the father of modern phenomenology, who felt that the modern domination of epistemology by science could no longer be overlooked by philosophy, which needed, in response to refuse metaphysical

speculation but also to eschew science's privileged objectification. Heidegger takes one step further in overcoming the subject-object dualism through his ontology and thus inaugurates a trend in which the critique of and break with metaphysics is treated as final.

Thinkers such as Foucault and Derrida, following in the wake of Heidegger and largely in continuation of his work, have shied away not only from metaphysics but also from ontology as a result, more concerned to situate ontology in historical and political determination. Among this generation of important late 20th century continental thinkers, only Gilles Deleuze, influenced strongly by Bergson, has continued to address metaphysics and ontology, but from a vantage of empiricism and ontogenesis. As a result, Deleuze can be constellated in important ways with our philosophers of evolution. However, I am not including a consideration of his ideas here, except where relevant, because though he has commented on technology in our times, this is not one of his primary concerns. On the other hand, he was profoundly influenced by a contemporary of his, Gilbert Simondon, who engaged deeply with the question of technology, and in this essay I wish to relate the ideas of conscious evolution to Simondon's thinking on ontogenesis and technology.

## **McLuhan: Media Technology and Consciousness**

However, before that, in thinking of a later generation who have engaged the ideas of the philosophers of conscious evolution with the ubiquity and ontology of modern technology, one must consider the Canadian philosopher of media technology, Marshall McLuhan (1911-1980). Both McLuhan and Simondon may be seen to have direct links to the philosophers of conscious evolution—McLuhan to Teilhard de Chardin and Simondon to Bergson. Though McLuhan did not directly reference Teilhard, the cultural critic Tom Wolfe (2011) has pointed to the pervasive influence and substructural presence of Teilhard's ideas in McLuhan's insights on media. McLuhan is responsible for a large number of neologisms that have become current in contemporary popular culture, three of his most well-known phrases being "global village," the distinction between "hot and cool media (McLuhan, 1964, p. 22)" and "the medium is the message," later further finessed as the book title *The Medium is the Massage* (McLuhan & Fiore, Q, 1967).

Regarding technology both as an exteriorization and amputation of human organs and capacities, such as the nervous system or the memory (McLuhan, 1964, p. 11), McLuhan articulated many of the ideas that have led to contemporary posthumanist thought. In seeing new technologies as amputations of human capacity, he was echoing Plato's concerns with "writing" as a technology leading to the attenuation and eventual loss of human memory (*Phaedrus*), but this was counterbalanced, for McLuhan, by the global expansion of collective consciousness made possible by technologies of communication, transportation and exchange. Yet, though the gains of collective consciousness were promising, the natural attenuation of individual capacities and the subjection of the individual to mass determinants were problematic consequences of technology that McLuhan was much concerned about all his life.

He saw and wrote of the subject altering powers of media arising from new equations and engagements of the human sensory system (McLuhan, 1962, p. 41), and reinflected this idea more powerfully in terms of ontological subjection in the tweaked variant "the medium is the massage." One can easily see the extended mileage of this idea in contemporary posthumanist

thought, as in Katherine Hayles' books *How we Became Posthuman* (Hayles, 1999) or *My Mother was a Computer* (Hayles, 2005). McLuhan was developing his ideas in a world dominated by television, and died in 1980, prior to the emergence of the desktop computer and long before the appearance of the World Wide Web. Yet, his pronouncements predict a world characterized by these developments in the 1960s. He discussed the ontological changes related to transitions of dominant media from print through film and television to multimedia and interdependent computing, coining the phrase "global village" to describe the last phase. In his text *The Gutenberg Galaxy: The Making of Typographic Man*, (McLuhan, 1962) he describes the promises and dangers of such a society:

Instead of tending towards a vast Alexandrian library the world has become a computer, an electronic brain, exactly as an infantile piece of science fiction. And as our senses have gone outside us, Big Brother goes inside. So, unless aware of this dynamic, we shall at once move into a phase of panic terrors, exactly befitting a small world of tribal drums, total interdependence, and superimposed co-existence. [...] Terror is the normal state of any oral society, for in it everything affects everything all the time. [...] In our long striving to recover for the Western world a unity of sensibility and of thought and feeling we have no more been prepared to accept the tribal consequences of such unity than we were ready for the fragmentation of the human psyche by print culture. (p. 32)

One can see here the recovery of a collective human unity, now extended to a global dimension, out of the fragmentation implied in the complexification of tribal culture with the ascendance of civilization, marked as per McLuhan by print media and its subjective correlate of individualism. But at the same time it is a return of subjective inundation by mass behaviors and instincts (tribal drums), lowest common denominators of consciousness (terrors) and surveillance and control by corporate or ideological authority (Big Brother). Behind this global culture one may intuit the cosmogenesis of Teilhard, a materialization of a cosmic consciousness or noosphere mediated by technology. Yet, for Teilhard, such a collective dimension could only be a stage in anthropogenesis, a precursor to christogenesis, or the generation of a cosmic and transcendental individual in each person. McLuhan could perceive the dangers and difficulties towards this eventuation, its easy derailment under the powers of subjection conditioning individuals more ubiquitously than ever before.

In response, he sought ways to maximize creative expression under these circumstances, indicating conditions and practices enabling agency, engagement and the autonomy and expansion of subjectivity. It is in such a context that, in his text *Understanding Media* (McLuhan, 1964, p.22), he distinguished between "hot and cool media," media which enabled consumption and disabled participation (hot) as against those that were intrinsically interactive (cool). Interestingly, he classes movies as being hot and television as cool, due to the latter needing more mental and emotional interactive response than the former. Today, such a distinction seems odd in the context of television, to which we more commonly attribute the function of producing "couch potatoes." However, the distinction could be seen as valuable in general for our consideration. McLuhan was not blind to the relative scale of these terms and displays his prescience once again when he compares television and multimedia computing:

The next medium, whatever it is—it may be the extension of consciousness—will include television as its content, not as its environment, and will transform television into an art form. A computer as a research and communication instrument could enhance retrieval, obsolesce mass library organization, retrieve the individual's encyclopedic function and flip into a private line to speedily tailored data of a saleable kind. (McLuhan, 1995, p.221)

When compared to Heidegger, we see that McLuhan does not subscribe to the former's unrelieved pessimism, though he is not naive about the detrimental effects of conditioning and state or corporate control implied by contemporary technology. Instead he opens the possibility of achieving a Teilhardian vision of collective noogenesis through new technologies. This promissory note extended by McLuhan has informed a number of contemporary techno-optimists, who feel that the World Wide Web in conjunction with other global telecommunication technologies, has inaugurated a new utopian age for humankind. In Gilbert Simondon, we will see another late 20th century contemporary of McLuhan who holds out similar horizons for the human future, albeit with greater nuance and further reach. The question of human subjectivity inaugurated by Heidegger in terms of modern ontology remains, however. To what extent are human beings available to realize such a promise, or are they all the better transformed into fodder bereft of agency within enormous global systems of surveillance, classification, control and use, conditioned to believe that they are happy and free through technologies of persuasion and invisibility, as predicted by Gilles Deleuze (1992) in his *Postscript on the Societies of Control*?

## Simondon's Ontogenetic Metaphysics

Gilbert Simondon (1924-1989) is undoubtedly the most sophisticated of the late 20th century philosophers of technology, who have continued in the wake of the early 20th century philosophers of evolution. As mentioned before, he was influenced by Bergson, whose idea of creative evolution and inventive fertility of becoming receives an updated treatment contemporary with a constellation of more recent concepts associated with modern science such as immanence, emergence, systems theory, chaos theory, information theory, cybernetics and self-regulating systems (Barthélémy 2005). This is not to say that Simondon drew from these concepts, rather he represents a milieu of thought in which such concepts were emerging and have since become current. As per my characterization towards the beginning of this article, the central idea in Simondon's oeuvre could be delineated as "cosmogenic individuation." In keeping with the post-Husserlian dictum in philosophy to keep away from idealistic metaphysics, Simondon does not develop an elaborate theory grounding becoming in a transcendent principle or choice, as does Teilhard or Sri Aurobindo. Rather, he positions the structures of becoming within becoming itself, proceeding empirically to verify and describe his ontogenetic processes. In this however, he is not too far from Sri Aurobindo, whose metaphysics is based in a praxis of transformation which can be equally made an empirical basis for participation in a "cosmogenic individuation."

Simondon's process metaphysics deals with a pure immanence of becoming. In his thought, a stable unitary Being would remain transcendent and be incapable of manifestation. On the other hand, a purely unstable being would lead to a chaotic manifestation. Instead he posits a "metastable" Being, "more than a unity and an identity," in other words marked by a radical

excess, which can double itself through a phase-shift (referred to by Simondon as "disparation") and thus generate gradients of exchange between two heterogeneous series, which are problematic fields of becoming (Simondon, 1989/2007). Each solution to such a problem would be a singular individuation, that would remain in metastable equilibrium with the larger field or problematic (the milieu) and the totality of the metastable being (preindividual being). Though relatively stable at the point of individuation, each individuated being and its milieu would remain capable of further individuation due to its continued metastability in relation to preindividual being.

Such further individuations may push an individuated being into another order of solutions belonging to a different problematic gradient, expressing new properties and degrees of freedom and agency. The information exchange along each gradient of becoming would be modulated by the properties of the medium of exchange, thus determining commonalities, degrees of variance and boundaries of each order of individuation. Simondon referred to these information transfers leading to resolution and individuation as "transduction." Thus individuation remained an "open" and ever-unfinished process, representing a negentropic tendency of Being generating ever higher orders of cosmogenetic individual and collective becoming.

## **Orders of Individuation: Simondon and Sri Aurobindo**

Simondon identifies three such orders of individuation, the physical, the vital and the psychic. Physical individuation pertains to entities of material nature, vital individuation refers to the order of living beings and psychic individuation is of mental subjects (human beings). As discussed each of these individuations occurs at the levels of the individual and the milieu. One may bring to mind here the evolution of purusha and prakriti along the modalities of physical, vital and mental consciousness in Sri Aurobindo. The evolution of prakriti along each of these levels can be related to the individuation of the milieu, while the evolution of purusha corresponds to the individuation of the individual. One may also note that Sri Aurobindo includes the evolution of the psychic being, which expands into the triple transformation and leads to the cosmogenesis and beyond of the individual.

While Simondon's "psychic individuation" is not elaborated to this degree, it is articulated further in terms of "collective individuation" or "transindividuation," a universalized collective socius enabling an open-ended diverse individuation in individual and collective. Collective individuation, in the case of Sri Aurobindo, forms the milieu of the "divine life." Theorized by him more in terms of a universal philosophical anthropology in his philosophical and psychological texts, in his social and political texts and in practice in the habitus of his ashram in Pondicherry, the relationship between the psychic and the collective developments included a cultural dimension pertaining to global or planetary unity. In 1968, after Sri Aurobindo's passing, his spiritual partner and collaborator, Mirra Alfassa aka The Mother, founded the city of Auroville, as a "planetary city" and a "site of material and spiritual researches for a living embodiment of an actual human unity." She also coined the term "collective yoga" to refer to the relational extension of the individual yoga at the collective level, open to a planetary culture. In 1973, the year of her passing, the Mother gave a New Year message which tied the goal of psychic evolution to a collective yoga at the planetary level: "When you are conscious of the

whole world at the same time, then you can become conscious of the Divine" (Alfassa, 1973, Para 1).

## Transindividuation and Collective Yoga

What is meant by being conscious of the whole world at the same time? It seems to me the preparation of a psychic subjectivity identified with the subjective life of the world and its preindividual excess. How can one prepare oneself to be conscious of the whole world at the same time? For the followers of Sri Aurobindo's yoga, who have privileged his yoga texts, this might mean the expansion of individual consciousness through meditation and union with a cosmic consciousness. But those who read his social texts or who have been privy to the Mother's texts on collective yoga or her words related to Auroville may say, through the evolution of prakriti and psychic engagement with the cultural history of the world. For Simondon, this would be the preparation for the planetary transindividual:

All individual ensembles have thus a sort of non-structured ground from which a new individuation can be produced. The psycho-social is the transindividual: it is this reality that the individuated being transports with itself, this load of being for future individuations. (Simondon, 1989/2007, p.193)

Such a preparation would bring to light the history of technology for Simondon. If the major part of Simondon's doctoral thesis at the Sorbonne was titled "Psychic and Collective Individuation," his minor paper, which got published first both in the French original and the English translation, and for which he is better known is "The Mode of Existence of Technical Objects." Following the anthropologist Leroi-Gourham, Simondon sees the human being as co-constituted by technology. Human extension into the preindividual excess and his transindividuation are facilitated by technology. But as a mode of existence, technical objects, though conceptually and functionally bound to human becoming, also represent an order of independent individuation. The evolution of lineages of technical objects, Simondon shows, follows like other forms of individuation, a transductive process leading to an efficient stabilization of elements, that has its own life outside of individual inventors, manufacturers or commercial interests. Simondon sees the individuation of technical objects following three orders related to three historical phases of human individuation—the premodern agrarian phase marked by artisanal manual tools, the modern industrial phase marked by thermodynamic engine driven machines and the postmodern and postindustrial phase marked by information processing.

If the human relationship with technology during the preindustrial phase was one which involved physical skill and implied a harmonious relationship between human, technical object and nature; the modern industrial phase has been one of increasing alienation between these three. Modern industrial machines have an enormous footprint, consume huge quantities of natural resources, disturbing the earth's ecological balance and depleting her reserves; mass produce enormous quantities of finished products, for which large industries of persuasion must be formed so as to manufacture desire for consumption; and excrete tremendous quantities of waste which must be disposed, poisoning the earth and the habitats of the underprivileged. To produce, operate and maintain these machines, human beings must subject their bodies to the

movements, speeds, temperatures, pressures and other unnatural properties of large-scale thermodynamic machines and their ensembles.

Simondon sees these conditions of human-machine interaction as an unpleasant phase in their mutual transduction, resulting in the alienation that humanists have attributed to the machine. However, even in the 1960s, Simondon foresaw the overpassing of this phase and its replacement by a new postindustrial phase of information processing, where the individuation of microprocessor based information processing machines and computers would tend towards physical miniaturization and wireless communication, becoming networked ensembles that would provide universal access to all of the earth, all sources of knowledge and all material and cultural handling capacities through versatile terminals. Indeed, like McLuhan, Simondon was seeing these visions of the future in the 1960s. Freed from subjection to industrial complexes, human beings would be able to interact creatively with nature and world through a mostly invisible layer of the being of technology individuated collectively in relation with human transindividuation.

## Utopia or Dystopia?

Is this the inexorable future utopia towards which global humanity is moving today with its p2p smart phones and other networked digital prosthetics and bionics? Is the experience of "being conscious of the whole world at the same time," announced by the Mother as the distant goal of an arduous spiritual development just a form of cheap purchase universally bestowed upon humanity through the transindividuation of technology? Was Heidegger's ontological subjection by the new mode of Being's disclosure through technology, seen as modernity's episteme, but a mistaken identification of a passing phase for the noons of the future?

Simondon's brilliance has been acknowledged by many major thinkers of his and our times. One of his greatest contemporaries, who reviewed his thesis with unreserved praise and borrowed heavily from him in his own work, was Gilles Deleuze; and one of the great philosophers of our times, who continues to be indebted to him and thinks using his concepts of psychic and collective individuation, is Bernard Stiegler. Writing in the 1980s, Deleuze (1992), in his *Postscript to Societies of Control*, warns about the mutations of capital from the industrial to the postindustrial age. If the ubiquitous presence of the machine extended an era of biopolitics related to the disciplining of human bodies in keeping with the needs of industry in the age of thermodynamic machines, our age of information processing sees a new kind of subjection. The miniaturization and invisibility of the machine hides its versatile and flexible control over human lives. The enhanced flexibility of work and movement, increased plethora of choices and extended reach over time and space present a commodified freedom and happiness, within which capital controls human lives, denying true creative engagement with preindividual being, which would make possible new individuations. Similarly, in our own times, Bernard Stigler has warned about real-time corporate and governmental profiling and targeting, fragmentation of subjectivity through chronic technologies of attention capture and the remaking of public memories through mnemo-technics.

What Simondon saw as the promise of a new utopian phase of human-machine transduction/transindividuation leading to an individual and collective cosmogenesis is not a

given that will arise automatically through the press of new buttons. Looking at the yoga of Sri Aurobindo, the arduous subjective disciplines necessary for "the triple transformation" needs a milieu dedicated to inner development for its habitus, something less and less possible in our present age globally networked for corporate interests of production, seduction and consumption. Yet, Simondon's vision is not without its possibilities; but what it would need is the development of subjective technologies to free the consciousness of conditioning and render it creative to transindividuate using technology.

Similarly Sri Aurobindo's expansion of consciousness can perhaps be better achieved in creative engagement with a global culture made available through transduction with ubiquitous information machines. New milieus for transindividuation, new forms of McLuhan's "global village" dedicated to perpetual cosmogenetic individuation may be possible through an enhanced subjective discipline of psychic and cosmic individuation moving towards the self-making of new subjects "conscious of the whole world at the same time" in engagement with co-individuating ensembles of information networks and machines. This is the promise of the future but it needs human agency and a subjectivity that can measure itself against the objective materialization of the cosmos in the form of real-time information networks controlled by capital.

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