

The Politics of the Cyborg: Some Thoughts on the Posthuman Debates

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When postmodern thoughts became formidable intellectual presence in the 1960s and 1970s, undermining some of the sweeping notions about progress and reason, one of the political consequences was that the idea about historical agency also underwent a fundamental transformation (Fitzhugh and Leckie 2001, Ermarth 2001, Shaw 2001). Socialist politics was particularly brought under introspection for its consistent defense of the agency of the worker, and feminist politics for its allegiance with a possible socialist politics that can address the historical questions of gender inequities (Bhavani and Coulson 1986, Kennedy and Tilly 1987, Harris, 1989, Anyon 1994, Kennedy 2008). Soviet and West European socialist experience was understood as 'actually existing socialism', a phrase Habermas described as "coily pleonastic" (Habermas 1990, p. 10), while western Marxism was mostly seen as a continuation of the 19th century utopias that Marxism had engendered (Frank, Rosenzweig, and Vale 1980, Williams, 1980). Most of the Third world, which now goes by the more modish phrase 'Global South' was marked by the growing presence of radical movements that revolted against imperialism, finance capital and their own national bourgeoisie. Parallel to these developments, at the core of the capitalist world order, several scientific advances began to emerge pushing the boundaries of human possibilities (Hanson, 2016). It is at the convergence of these compulsions, and in a deep and contradictory relationship with them, that the idea of the cyborg, that has now become a major social category, began to get increasing attention among anthropologists and philosophers along with scientists, engineers, technologists and technocrats. I have argued elsewhere, in the context of discussing Asian modernities, that the cyborg future is not a universal one, and the march toward a future of transhuman would inevitably create deeper inequalities in a world where modernity is differently experienced (Sreekumar 2015). In fact, Agar (2007, p.14) has noted that "exacerbation of social

inequalities" is a much-discussed possible harm that transhumanism can create. Nevertheless, it is important that the material force of the idea of the cyborg, its possibilities and transformative capabilities should also be explored against its increasing acceptability as a social category (Huges 2004, Bostrom 2005).

Most recently, in the radical imagination, the concept of the cyborg or the scientific advances that lead to its refinement have also been recognized as a major challenge in rethinking emancipatory politics (Zizek, 2016). Zizek, in fact, even edges the issue in terms of the juxtaposition of techno-gnostic dream of achieving immortality (among other things) with the abandonment of the political utopia in the domain of socio-economic relations (Ibid p. 339). As de Vries (2007 pp. 781) noted "the involvement of scholars belonging to STSD and Philosophy of science, in experiments that extend participation in decision-making about science and technology are shown to be based on an un-reflexive use of an off-the-shelf conception of politics. This conception, grafted on the old model of the sovereign, frames political actors as 'mini-kings': as subjects with preferences, interests, aims and plans that they want to be executed" (What is political in sub politics? How Aristotle might help STS). In response to Habermas's important study on the Future of Human Nature (Habermas 2001), Mendieta (2004 p. 723) argues:

In contrast to these posthumanists, Habermas suggests that we should reflect at a lower level of abstraction, one that is more in tune with our reflexive modernity. At this level we can consider the practical impact that genetic intervention, and here Habermas is particularly interested in stem cell research and pre-implantation genetic diagnostics (PGD), would have on the moral self-understanding of future generations who would be at the other end of PGD interventions; more specifically, what are the consequences for political modernity if we are allowed to proceed with the optimization and instrumentalization of the species that all forms of genetic intervention entail.

The political possibilities of the idea of the cyborg

is also being contemplated deeply in the emerging literature on techno-culture as well techno-politics (Gray 2002, Braidotti 2013). The political rupture the concept foregrounds is increasingly drawing scholarly attention. As Smith (2009, p. 70) noted “the figure of the cyborg is both a metaphor and role model for resistance within this evolving paradigm.” The theoretical and political challenge it poses to radical systems of thought was noted by Samir Amin, a prominent Marxist scholar in his significant essay on the Law of Value (Amin 1998). He carefully notes, although he does not directly invoke the notion of the cyborg, that cybernetic automation implied “a challenge to the concept of value and to the law of value, for social supervisory labor does not represent, according to its main characteristics, a direct or indirect contribution to the productive labor process” (Amin 1998, p. 82). He adds that the technological revolution manifested in cybernetic automation has triggered “a metamorphic process for exchange value, opening the possibility of the withering away of its dictatorial sway” (Ibid, p. 89).

Indeed, the idea of the cyborg was closely hinged to the emergence of cybernetics as a new discipline of enquiry. Cybernetics as a principle from physics was first borrowed to human-sciences and cultural studies long back when Norbert Wiener’s work of 1948 on cybernetics revolutionized our understanding of regulatory mechanisms in organisms (Weiner 1985 [1948]). Wiener’s argument was that organisms are self-regulatory mechanisms whose structures are largely cybernetic, i.e. governable systems that work through signals and feedbacks. Wiener calls this “*control by informative feedback*” (Ibid p. 113). This conceptual principle then came to be applied in a variety of sciences and disciplines ranging from electronics to linguistics and psychoanalysis (IEEE 2014). The term cyborg to denote a cybernetic organism came up first in the discipline of Space science in 1960, as used by Clynes and Kline (1960 [1995]) in a paper in *Aeronautics*. The intent of the paper was to propose that it would be better to alter human’s bodily functions technologically than provide earthly environments to survive in space. The paper had radical and direct impact in the field of space technology, artificial intelligence and bioengineering. According to them, a human as a cyborg, would extend the self-regulatory functions of the body to the external machinic components with the help of technical additions to the system. In science, cyborg technology was thus imagined as part of the future human evolution, to think about the prospects of surviving in non-terrestrial environments. Basically, cyborg implied a human who was augmented with any technology and it was possible to reimagine human history with an alternate perception about human in

relation to the material tools, extensions, media, language, speech, script, pen and computers. This possibility gave the concept of cyborg an epistemological opening into human sciences, philosophy and history.

Haraway and Cyborg Vision

Haraway proposed in her landmark text that the obsolete idea of ‘human’ and ‘man’ could be replaced and a ‘cyborg’ could be the new paradigm of the self (Haraway 1985). By the time Haraway happened to use term in a politically strategic manner, the term had already emerged as a figure in the popular culture and especially in science fiction and “reiterated in a variety of embodied technoscientific forms and venues” (Schneider 2005, p. 61). Hayles (2006, p. 159) notes that the article was written in the closing years of the Cold War, in part as “a provocation to feminists who wanted to position women in alliance with nature and against technology”. Haraway perceives cyborg as “a cybernetic organism, a hybrid machine and organism, a creature of social reality as well as a creature of fiction” (Haraway 1991, p.149). She observes that by the late 20th century, humans “are all chimeras, theorized and fabricated hybrids of machine and organism” (Ibid, p.150). At a time when machines were not only becoming integral to life, but were being perfected to be more intelligent, imaginative and self-sufficient, Haraway’s proposal had several layers of implications and it also worked to forge the relations between man and machine that was becoming a central problematic for life forms of 21st century. The relations that we bear to machines henceforth would decide the nature of our cultural and political existence. Haraway herself had an ironical vision about this relation when she observed that, a cyborg world is a perspective on one hand “about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defense, about the final appropriation of women’s bodies in a masculinist orgy of war” and on the other it might be about “lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints” (Haraway 1990 p.196).

The cybernetic vision and the cyborg dream had come up with many promises. The title of a 1967 poem of Richard Brautigan says it all; “All Watched over by the Machines of Loving Grace” (Madrigal 2011). The poem written while he was a poet-in-residence at the California Institute of Technology, imagines about a “cybernetic meadow” a techno-utopian vision of a world where mammals and computers lived together in a mutually programmed harmony (Brautigan 1967). Donald Fagen’s song I.G.Y.

wrote in 1982 also dreamt of “A just machine to make big decisions/ Programmed by fellows with compassion and vision”. Incidentally, 1982 was also the year *Blade Runner* was released, a neo-noir dystopian science fiction film which projects the machine as the hubris and fatal doom of man. *Blade Runner*, according to Martin (2005 p. 120) raises questions about both the position of the human being under postmodern conditions as well as invites “speculation upon a *posthuman* epoch”. Haraway herself described the character Rachel in *Blade Runner* as rightly representing the fear, love and confusion of the cyborg culture (Martin 2005 p. 107). While science and technology negotiated with and navigated through the cybernetic principles to finally connect the organism and machine into a collective form, popular cinema, art and literature got flooded with both utopian and dystopian visions about machinic future. Recently, an art exhibition, “All Watched Over” at James Cohan Gallery curated by Tina Kukielski (2015), summoned up the utopianism of Brautigan’s poetry, but also takes into account the later cynicism that washed in—as represented by the dramatic irony of Fagen’s song. The pieces by Brenna Murphy, Michael Portnoy, Lee Mullican, Paul Laffoley, and others, do project certain strangeness, but also emphasize the role of capital in framing the futuristic cybernetic visions. I think the way this can be understood is as a metaphorical frame for the argument that capital sullies the cybernetic-meadow dream.

This is precisely why we need to understand the original idea of the cyborg and look at its transformative trajectories. Haraway (1991 p.181) draws on a bizarre dichotomy between cyborg and goddess. The title of her essay published in the journal *Arguments* was ‘Rather cyborg than Goddess’¹. This reveals that her intention was to take a firm stand against the anti-technological, luddite, essentialist limitations of feminism of that period. The disjuncture between the huge technological changes happening and the conspicuous lack of theoretical and political responses toward it, from both socialist and feminist quarters was perhaps what brought about the ontology of cyborg in the first place. The extreme irony in which Haraway steeps her essay is of course a way of challenging the political and theoretical orthodoxy of socialist-feminism. She contests that her ironic faith on their premises works like how ‘blasphemy’ works over faith. She calls cyborg the ‘bastard’ illegitimate offspring of militarism, patriarchal capitalism and state socialism. It is the very fact that the father is both essential and inessential that make a bastard/cyborg a powerful metaphor for protest and dissent.

Cyborg is both a material artefact as well as a compelling metaphor to explore corporeality and human subject. It is compounded of not the ‘human’ (with all

its political history and ontology) but the ‘organism’ and the machine. Haraway curiously calls them post second-world war hybrid entities. While understanding Cyborg as organic creatures and ergonomically designed apparatuses, communication systems, texts and processing technologies, can the ontology of cyborg fit into the contemporary social context that follows the political chaos of a post-cold war, post-Soviet socialist, post 9/11 and post Arab spring global reality? In the early stages of cyber-discourses, an assumed polarity between what William Gibson called ‘meat space’ as against the ‘cyber space’ was emphasized and human consciousness was thought to be caught between the real space of the body and the disembodied virtual space. The cyborg is, perhaps, the only concept that could swim through the polarity discourses and make itself relevant in contemporary realities of artificial intelligence where anxieties over such polarity no longer makes any sense. The cyber space, that is no longer about virtual, the new cybernetic meadow that floods with capital, also rewired the cyborg and its social and cultural prowess.

It is the historical understanding of Haraway’s cyborg as not just a mere techno product but the result of the extended military-industrial complex and the rising neo-liberalism of the 1980s that makes it more relevant today. Moreover, pertinent to the birth of cyborg was the then prevalent post-Heideggerian critique of technology (Heidegger 1977) that provided a bridge between Marxian political economy and post-structuralism (Gandy 2010). Haraway notes that no confrontation of dominations of race or gender can claim ‘innocence’ from other dominations by citing how Euro-American feminism had to see the non-innocence of the very category called ‘woman’ in its blindness to the experiences of non-white women. She, therefore, holds that cyborg is ‘completely without innocence’, in the sense that its politics is rooted in an ‘informatics of domination’. (Haraway 1990 p. 192) Haraway’s most important contribution must be perhaps that of foreseeing the informatics of domination, a new type and pattern of domination using information and communication machines that she identifies across a realm of fields ranging from genetic engineering to immunization.

The concept of cyborg is not to be identified and studied as just a product of technology, but like ‘human’, it should be understood as an ontological category rooted in history and constituted by contexts that are local, cultural and political. The earliest marked attempt to co-relate man and machine, Alan Turing’s tests to identify the ‘intelligent’ machine, worked on a pre-supposition about a ‘man’ that was evidently carried over from Enlightenment humanism (Copeland 2004, Hayles 1999). The test depends on an interpretative intervention to find

out who is on the other side, a man, a woman or a machine through language-based questions. Every theoretical and practical attempt toward co-relating man and machine henceforth was based on the mind-body duality which was also rooted in Western rationality. Moreover, not surprisingly, the test presupposed 'woman' as an error, as an aberration from the normal, thus borrowing all the cultural inequalities into the domain of the machine (Hayles 1999). From Norbert Weiner's theoretical proposal to telegraph a 'human being', to Han Moravec's fantasy of downloading human consciousness, to Kevin Kelly's futuristic call to scan everything into a brain, to the imagination of the producers of the science flick *Star Trek* that body can be re-materialized in a remote location after being de-materialized on earth, to the *Matrix* series, to the concepts of molecular biology and genetic engineering that rests upon body as a code, to the experimental artist Stelarc's performative prosthetics (Stelarc 1991), much of contemporary technologies as well as confrontations with them are built on this age-old understanding of mind-body duality. Thus, Haraway, in a certain sense, clearly anticipated the more recent arguments in Gray (2001) and Clark (2003).

Cyborg and Actor Network Theory (ANT)

In the course of the appropriation of the idea of cyborg into the newly emerging areas of knowledge, its original message as a transformative agency replacing the worker of the socialist politics and woman of feminist politics was getting diluted to evanescent. As if the inherent irony of cyborg that Haraway steeped it in would pursue its course, the most practical application of Haraway's cyborg came with Bruno Latour's attempts to extend the material-semiotic analysis that cyborg implied into the actual techno-cultural contexts. Especially in the wake of huge technological advances of the 1980s and 1990s that involved political, technical, legal and scientific objects, cyborg had to be relocated from the metaphorical realms it occupied to that of techno-materiality. In fact, Haraway herself acknowledged this future transformation of the idea when she argued, "Michael Foucault's biopolitics is a flaccid premonition of cyborg politics, a very open field" (Haraway 1990, p. 191). From Latour's ANT and the material engagement that it proposed, the cyborg became a thorough technical component, away from the socially relevant metaphors of feminism and socialism (Latour 2005). As a perceptive writer pointed out:

De-substantivized and detached from the sociotechnical and other determinate topics, ANT becomes an overture to a shape of concepts and an intrinsically spatial treatment of ontological action. Distributedness offers the counterpoint to treatments of assembly through alignment and enrolment that have struck

many anthropologists as overly triumphalist and voluntaristic, but it also, to take an obvious example, pushes anthropological understandings of place, locality and subjectivity away from the sufficiency of structuralist notions of negative or contrastive definition (Oppenheim 2007 p. 486).

Agency in ANT is situated neither in humans nor artifacts but in their coexistence within the network. The controversy regarding the question of agency becomes a topic for dense debate as non-human intentionality implied in this proposition is challenged and closely interrogated. However, the standard response of ANT scholars typically relies on a denial of the assumption of the equivalence of agency and intentionality by their critics (Pyyhtinen and Tamminen 2011; Vicini and Brazal 2015). Non-human 'actants' and humans, in this strict sense, are not seen as equals in the network by ANT. However, the subject-object distinction is deeply contested by Latour in his expositions. In the second International Knowledge and Discourse Conference, held at the University of Hong Kong in June 2002, a debate between Bruno Latour and Steve Fuller teased out the deeper philosophical dimensions of this controversy (Barron, 2003). The question centred around the emphasis on the subject – object distinction is to reflect on the ANT position on human-non-human unity in the network. Latour, arguing that the subject–object distinction is a Kantian legacy that academics should discard, uses the orientalist shield citing Asian examples. He says that it is "very difficult to argue for the subject and object distinction – not because Asiatic thought has overcome the subject–object dichotomy, but simply because it was never there" (Ibid p. 82), while Fuller points to the nature and purpose of social science in general where he sees it as moral project of humanity where human agency has always been crucially significant in a historical sense, making the need for a distinction between the human and the non-human indispensable. However, in Latour's exegesis, the dream of a powerful agency turned into a resigned acceptance of the role of a mere actor of the network. Human subjects are defined by Latour as not any autonomous essence, but with respect to the networks in which they participate. It not only meant that 'human' subjectivity could no longer be separated from the machinic units of which it is part of. More threateningly, it also implied that the control of the machinic component would be an act in the network that the human can only partake. The idea of machine being a tool in the hands of a benevolent or non-benevolent human was no longer valid. On the contrary, machine or the technical component became integral to the being of an 'organism', its existence in the network. This is why Latour's Actor based anthropology concentrated on the non-human's participating in our collective life, as his broad field work reveals, it resides

in laboratories, in rain forests, in councils of states so on and so forth (Pyyhtinen and Tamminen 2011). What had to be understood for Latour was the infinite ways in which humans are enmeshed with what he calls 'non-humans'. He leads this argument to the very end of it by observing that 'humans' cannot be grasped and saved unless the non-human is restored to it. Agency was thus no longer subjective but distributed across an ontologically heterogeneous field. (Bennet 2010). Action is defined by Latour in terms of the influence or effects on others in the network. The capacity to act implies no special motivation of the humans. Non-humans—houses, missiles, airplanes, mobiles, food stuff, plagues, tornados so on and so forth—do not just form the background of human action, nor are they passive objects of human action. For Latour humans owe their agentic efficacies and capabilities to the larger assemblage of elements that they are part of. It is Michele Foucault who had earlier looked up at 'human' as a compound of relations, networks, functions and practices, constituted within archives, (written texts, annals, medical and institutional records, literary texts and personal narratives in the case of Foucault). The radical question in Foucault's critique has always been 'have we ever been only human'? What Foucault meant when he said that man is a face drawn in sand at the edge of the sea that will soon be wiped off, is certainly that our assumptions and convictions of an entity called Man is soon going to be judged, challenged and reconstituted. When subjectivity was examined by Haraway as a cybernetic compound consisting of a biological body and information networks- both carbon and silicon, her emphasis was on the subjective agent that was free from the restricting episteme 'Man', freed from its socio-political, racial and gender norms and equipped with a new machinic property installed into the body, cybernetics flowing through the cells. But when we reach Latour, this powerful agent is re-configured as an Actor, a component unit of the network, a node in the cybernetic flow. In his response to de Vries (2007), Latour reads de Vries's position as implying clearly that it is time that scholars stop playing the philosophical (Latour 2007). It is not that Latour is discarding the project of politics of science altogether, but he wants it to be defined differently than what is commonly understood by the term. The everyday struggles of domination and hegemony are not, even in their micropolitical manifestation, admitted as politics. Instead, as he says, "politics is something entirely different from what political scientists believe: it is the building of the cosmos in which everyone lives, the progressive composition of the common world" (Latour: 2007: 813). Citing Tresch (2005), he argues that "politics is now defined as the agonizing sorting out of conflicting cosmograms" and it can now be called cosmopolitics, to

mean the politics of the cosmos "and not some expanded form of internationalism" (Ibid). It is within this newly defined understanding of politics where ANT is now staking cyborg's political agency.

Some Contemporary Cyborg Utopias and the Informatics of Dissent

In some lesser vein, cyborg metaphors have also been projected as a solution for all the economic problems where socialism fails to provide an alternative. Everything from internet to artificial intelligence, interactive programs to cybersex emerge as fairy-tale-like endings for the unimaginable problems that 21st century capitalism rooted up (McCracken 1997). Universal access to internet or Bill Clinton's 'slogan a computer in every classroom' (which comes to be reiterated in many campaigns in 3rd world scenario as well), or Al Gore's dream of a global network of fibre optic cables are only few instances where access to technology is projected as the solution for every capitalist enigma.

The truth is that the cyborg metaphor, though it had evolved from the particular milieu of Bay Area of America, especially San Fransisco and Silicon Valley, influenced by its strong lesbian and gay cultures, of body piercing, tattooing, silicone implants, hormone treatments, cosmetic surgery and all those 'specific' implications of being 'posthuman' which coexisted with technological capitalism of Apple and Hewlett Packard (McCracken 1997) (now being carried over by Microsoft, Google and Facebook), it can be handy and undeniably so in the Third World contexts where every universalistic project has to be viewed with suspicion and scrutiny (Agar 2007). Where and when more and more people experience dislocation, isolation and alienation and are placed in a very threateningly volatile terrain of access to technology that acts like double ended swords, an identity notion that do not rely on the old faith on human as an organic whole is very significant.

There is an emerging pattern of what could be called 'informatics of dissent' (Smith 2009) that comes up today. 'Twitter revolutions' and Facebook protests are in fact part of this larger pattern of dissent and resistance that involves organism and machine. The relation between man and the tool is no longer that of the early forms of alienated labor, nor is the machine here a mere blind/passive partner in a march toward material progress. Though the manifestos about cyber utopias were immensely restrained by the limited nature of the liberation that they sought, there has been a constant tussle with the accepted mainstream that information technology has come to symbolize as well as render possible. Smith sees this as the cyborg turn in social networking arguing that "cyborg has come to life

in the young (and not so young!) people who aren't afraid of science and technology but, on the contrary, expect that technology will conform to their needs as users rather than anticipating that it will impose deterministic agendas on them" and also that "they see themselves as potentially powerful agents of social change" (Smith 2009 p. 76). Smith's radical interpretation of Haraway is summed up in her conclusion that informatics of domination has produced communities and networks of communications-savvy cyborgs who are the gravediggers of capitalism (Ibid p. 76). Fisher (2010 p. 241) takes a similar position when he argues that "the construction of the cyborg, the engagement of humans with the world becomes more meaningful and allows greater degrees of freedom. Networks free humans by affirming and augmenting their non-essentialism".²

This emerging emphasis on the liberating potential of the cyborg, however, does not take seriously the response of the State to the possibility of such subversive use of technologies. Today an individual with the ability to use unconventional ways of accessing and processing information becomes the most formidable threat to States. A certain 'criminal' way of using the communication tools is identified in acts like breaking into secure devices or websites, mass texting, sharing of content, forming of resistive groups and so on³. Techniques of fear, isolation and tracking, public shaming, denial of basic liberties of speech etc., form the backbone of the strategies of the informatics of domination. The techniques of the informatics of domination remain the same whether the dissent is for the right to share music, watch a film, read a content or protest against governments. Larger expanding circles of crimes are thus being identified that mark the cyborg politics, its aspirations and limitations. On the flip side, the strategic informatics of domination is also emerging as a significant element in the post-truth right wing politics worldwide, that depend on manufacturing consent through fake data and fake news.

Art and Technology: The Digital Interface

Arthur C Clarke in his 'Profiles of the Future' had made an extraordinary observation that "any sufficiently advanced technology was indistinguishable from magic" (Clarke [1958] 2007, p. 21). It seems very ironic in a way that what links art and technology is the historical and conceptual roots that they both share with magic. Apart from the eerie ambience of digital-sensors and infra-red and the psychedelic sensations that digital art and magic evokes, art and technology has now created a conjured-up space in which people's movements are detectable, presences archivable, senses projected and bodies located. In this space where art, technology and politics use the

same interfaces of the digital, it has become impossible to differentiate each of these units distinctively. Mobile art, a relatively recent idea that encompass the production of art via smart phones and tablets, represents yet another moment of this ambivalent merger of aesthetic, technological and the political domains of everyday life (Farman 2011; Riser 2011). Luke (1996 p. 2) succinctly notes that Clarke was popularizing the image of cyborg in his Profiles of the Future, arguing that "humanity had nothing to fear from uniting, temporarily or permanently, with spaceships, sub-marines, or TV networks, Clarke ultimately foresaw the human, organic component of cyborg beings becoming disposable".

"Cybernetic Serendipity"—the ground-breaking pioneer computer art show held at Institute of Contemporary art in London in 1968 in which computer graphics predominated as art—was also perhaps the first in which it was impossible to distinguish between a technologist and an artist⁴. Most of the displays by George Nees, Max Bense and others who exhibited their computer graphics as art believed that generating "works of art" or "aesthetic objects" was a very rational activity like programming (Candy and Edmonds 2002). While their exhibits looked to laypeople as nothing more than black straight lines on white paper and geometric shapes, the language of computers had invested into it such metaphors that revealed itself only to an informed scrutinizing eye. But this was not after all any different from the auratic magic that art upheld, the aura that Walter Benjamin famously proclaimed as disintegrated after the mechanical reproduction of art (Benjamin 1969 [1936]). Digital reproduction was also repeatedly claimed to be destroying the 'aura'. However, we may see that the 'aura' had in fact remained intact and has survived in new technological, commercial, corporate and ideological strategies.

Max Bense (the credited founder of the field 'Visual Semiotics') even called the graphics generated by computer programs as 'generative art' or 'artificial art', combining Chomsky's generative grammar and Minsky's artificial intelligence (Candy and Edmonds 2002). But the term also necessarily implied that there was a 'natural' art prior to the digital. This self-consciousness often defines a section of digital artistic endeavours and invariably even in contemporary critical parlance, digital is often regarded as requiring lesser 'original' and human effort, and inconsequential of lesser merit and standards (there is no dearth to such prejudices against digital media from the print-quarters, from writers, artists and publishers in our regional locales too). However, the merging point between programmable devices and fiction had started earlier, perhaps with the memex, the proto-hypertext conceived by Vannevar Bush. Alternatively,

the knowledge of and relation to computer's language had been an undercurrent in literary fiction like Borges' 'Forking Paths'. Migration, interactivity, participation and immersion and almost everything that computer networks implied, were being passionately explored in the postmodern literary landscapes by writers like Borges, Calvino and others in whom we see that the 'engineer's vision and artist's vision' (Murray 2003) collide and integrate. The approach of these writers is marked by an evident, almost paranoid awareness of the organization of human consciousness, as if the opaque intricacies of language became transparent before them. While Vannevar Bush, Ted Nelson, Douglas Engelbart and other many computer scientists were trying to study the artistic dimension of computing technology, writers like Borges and Italo Calvino were testing the computing potential of the language they wrote in. Writers, especially of fiction and poetry were becoming more and more conscious that their task was that of a machine minting words, that presented one or many of the possible combinations of events and the error in the system that made the 'work of art', what Calvino called 'Clinamen' (Calvino 2003. p.187).

It was Marcel Duchamp who described art as a practice like 'breathing' (Cabanne and Duchamp 1971, p. 72). Enigmatic and provocative, Duchamp's statement indicates a key threshold in modern art. It contrasts and counters the conventional notion of art as 'life-work', for breathing does not produce anything stable and is not a lasting activity, but as ephemeral as it can be. It is perhaps from Baudelaire on, in whose definition of modernity in 'The Painter of Modern Life', that art began to prioritize ephemerality over the hitherto accepted expectation of eternity (Baudelaire 2010 [1863]). In the world of 'post internet' art, we may even think of Duchamp's analogy of breathing to extend itself to the meanings that the act of breathing takes up in the digital lives, the sinews of networks that connects to the central nerves of power. Duchamp's statement, Baudelaire's equation, Benjamin's predictions about the fate of artistic aura and the nature that art took up in the digital times, all in a way attaches to Hegel's revolutionary prediction about the end of art: that there will be both art and the end of art (Hegel 1998). That art and its end will co-exist together could have been radical to conceive in Hegel's times, but with the coming of modern media technologies, its praxis and semantics of permanence and impermanence, the coexistence of art and its end has become part of our quotidian.

The influence of digitality on art, is no longer restricted to the production or distribution of art, for digital is now more than a 'medium' but an environment and ecology in which life survives. 'Ecology' here implies that 'massive and dynamic interrelation of processes and objects,

beings and things, patterns and matter' (Fuller 2005 p. 2) that is characteristic of both digitality and art. Cyberspace is now the ecology in which digital art like Net Art thrives. Unlike web based art, Net Art exists within specific networks on the internet and not necessarily on world wide web. Initiated and popularized by Vuk Cosic, constituted through alternative networks in lists like nettime, these are efforts by artists to use network as a means of production of meaning, as alternate space for creative resistance (Duron 2016). Net Art was a sort of internet anthology started by the digital organization called Rhizome in order to provide permanent home online for the fleeting art works in internet that often vanishes due to clutter or sometimes due to political and censorship reasons.

According to Mark Tribe, the founder of Rhizome, the site was inspired by the book *A Thousand Plateaus* (Deleuze and Guattari 1988) in which the biological term denoting laterally spreading underground stems was used as a metaphor to all types of spreading, especially that of the horizontally distributed, non-hierarchical networks (Rose 2016). The foundation, like Net Art, had come up as part of the radical politics of internet that promised to do away with all sorts of traditional museums and gate-keeping of ideas. But ironically when Net Art itself began to disappear in the altered contexts, Rhizome became a sort of 'post-museum' to preserve the same radical works.

Thus, even when the reproducibility of work of art has increased several fold and avenues of production and distribution extended, the infamous 'aura' that Benjamin credited with work of art could be seen getting restored in the altered contexts and crises of digitality. (Betancourt 2006). With the digital, the aura gets extended into two broad terrains -one is the international art/literary markets that now thrives through the digital and the other is the process of self-distinction and self-aggrandization that the new extended audience of art now necessitated rather than obliterated. For instance, every other industry of art-painting, music or book now insisted on the supremacy of the original and the real in one way or the other to fight the burgeoning market of piracy. Film industry for instance, was forced to resort to many tactics to clamp down file-sharing and piracy by insisting on the 'theatre' experiences, by enhancing the quality of theatre viewing through 3D and high definition, or even by entering into successful trading partnerships with the 'legal' piracy of online distributors like iTunes, Netflix or Amazon. It is hard to talk about the 'aura' of the film here in terms of the old dictum of original and copy that had vexed Benjamin. With the digital, the significance of aura merely shifts from the cult value to commercial value.

Stelarc's performances based on the concept that human body is obsolete, should perhaps be the most

appropriate artistic imagination to have come up from the cyborg ontology (Stelarc 1998). Stelarc's performances involve robotics and other technology integrated to his body⁵. The genre of biotechnological performance practices cannot be rubbished as too futuristic. In one of his performances 'Parasite', Stelarc explores his body by choreographing it through internet data streams, body is experienced and projected as the 'chimera', the combination of meat, metal and code. The idea of Stelarc's art is to explore the extent to which our physical appearances can be projected as extensions outside the actual physical body and performed remotely through machines. It is a theoretical, experimental and artistic confrontation of all the psycho-sexual and archetypal entrapping and obsessions about the mind-body duality which has been the foundation of Western epistemology for so long. For Stelarc information is the prosthesis that props up the obsolete body. The most striking fact about Stelarc's performances is that it is not agency driven. The body of the artist, which has long been the ground for subjective assessments about individual worth, power and expression, is mostly a sight of indifference, extreme susceptibility and objectification. Most often, in the performances that are not scripted, the body is absolutely clueless about the outcome of the act of extending itself electronically. Stelarc reiterates through his performances that speaking about a mind in terms of the old platonic duality or the Cartesian crisis or the Freudian psycho-sexual conclusions is highly problematic. Stelarc pointed out in an interview (Donnarumma 2012) that "[t]he more and more performances I do, the less and less I think I have a mind of my own, or any mind at all in the traditional metaphysical sense...What constructs our identity is no longer our physical presence or location but rather our connectivity (to other bodies)". He also argued that "[t]he significance of cyber may well reside in the act of the body shedding its skins" and that "[c]yber systems spawn, alternate, hybrid and surrogate bodies" (Donnarumma 2012). The insistence on connections that Stelarc emphasizes has been elaborated by Scheer (2002). Performances are also seen as highlighting the potential of the of the body as an adaptable medium capable of dealing with new contexts and prosthesis, focusing on "the relationship between body and technology in terms of connections and not in terms of a logical separation of bodies from the world" (Scheer 2002 pp. 85-86). While Stelarc has been experimenting with the limits of the body since 1960s, his internet performances represent and demonstrate the relation of the body to the global communication system (Poster 2002 p. 28).

Conclusion

Wolfe (2010 p. xv) pointing to the complexity and ambiguity of the idea of post-humanism attempted to bail it out by arguing that it is analogous to the paradoxical interpretation of postmodernism as given by Jean-Francoise Lyotard that it appears before and after humanism, emphasizing both the technological and biological embodiment and embeddedness of the human species. The idea of the cyborg in its various incarnations served to at least partly reduce this ambiguity. Ostensibly, the politics of the cyborg, as initially envisaged by Haraway has also undergone innumerable transformations. It now stands at the threshold of being appropriated into a rhetoric of scientific progress on the one hand and aesthetics of experimentation with body composition on the other. From the art of the 1960s in which networked computers stood for much hope and a reassertion in humanity, when the machine was posited as a boon to save man, through the dystopias of the machinic violence as in *Terminator* or *Blade Runner*, contemporary popular discourses understand human-machine connectivity in terms of a choicelessness and dramatic irony that reasserts the end of a dream. But there is also a hope in reconstituting the nature of the dream, the nature of the revolts and that of dissent. But it drastically differs from previous experiences of historical forms of organized resistance and struggles for social transformation. Latour (2005), in an imaginary conversation prepared for a volume in honor of Donna Haraway which was eventually rejected by the editor says: "You see. So, you're still dreaming of storming the Winter Palace, aren't you? If it doesn't resemble the confrontations of May '68, or the riot gas filled streets of Seattle, you don't believe it's politics? You still have Delacroix' painting in mind: The Republic with her naked breasts, a Phrygian cap on her head, holding the tricolored flag and marching on — straight into the hail of bullets. You want to die heroically on barricades. Sure to lose." This summarizes, in a sense, the prospects and limitations of the concept of the cyborg as an agency of change.

Notes

1. Damarin (1994 p. 54) picked up this argument to "elaborate (and to celebrate) the goddess and cyborg mythologies in contexts of teaching" involving a search for "positionalities for teachers who are neither goddess nor cyborg but always already both goddess and cyborg".
2. Citing Downey and Dumit (1998) Scholari (2009 p. 952) argues that "From the anthropological point of view, a new field called cyborg anthropology has appeared which studies the intersections between individuals, digital society and networks".

3. However, subversive use of such techniques has also been celebrated. Wikileaks, Aron Swartz's hacktivism and Edward Snowden's leaking of NSA documents in June 2013, are actions that more recently renewed discussions about electronic surveillance, security, privacy in the context of understanding ethics of the nation state (Fidler 2015; Bauman et al. 2014; Murakami and Wright 2015).
4. "Cybernetic Serendipity was the first large international exhibition of electronic, cybernetic, and computer art. It took place at the Institute of Contemporary Arts (ICA) in London, UK, from 2 August to 20 October 1968" according to the URL <http://dada.compart-bremen.de/item/exhibition/3>, retrieved on 20 August 2017.
5. Some of the important projects and texts by Stelarc are archived at the URL <http://stelarc.org/?catID=20247>

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