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Consideration of Digital Divide in Societies of Globalised Control: Extension of Social Contract

Küreselleşmiş Kontrol Toplumlarında Dijital Bölünmeyi Düşünmek: Sosyal Sözleşmenin Yayılımı

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Abstract

If social cybernetics is clarified as an 'emergent property' for the multifaceted established of interior associations in the midst of technology, policy and management foundations of wide-ranging resolution computing, we should ask are there any implementation of its definition in the sociology of technology? Therefore, this paper introduces multidimensional perspectives of techno-social interactions to diagram a theoretical concept of digital divide (DD) and elucidate its limitation stages within the relative literature. What the current reality is that we cannot escape from a global prison even if we do know we are in one, in this sense, this paper is interested in arguing how the definition of DD leads technocratic reasoning in which societies of globalised control cannot be separated from speculation, accumulation and circulation of technological commodities that actually lead an unspecific but an extension of social contract in any developed or developing nations throughout technological education. Political philosophy is then inseparable from ethnics of social cybernetics because the relative issue is rather assemblage of abstract technological control.

Keywords: Cybernetics, Digital Divide, Sociology of Technology, Sociology of Education, Social Contract, Communication

Introduction

If social cybernetics in technoethics is clarified as an 'emergent property' for the multifaceted established of interior associations in the midst of technology, policy and management foundations of wide-ranging resolution computing, we should ask are there any implementation of its definition in the sociology of technology (Bunge, 1977)? This paper shall argue the dichotomous and

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multidimensional perspectives of techno-social interactions to diagram a theoretical concept of digital divide (DD) and elucidate its limitation stages within the relative literature. What the current reality is that we cannot escape from a global prison even if we do know we are in one (Chapman, 2015). In the modern era, socio-cultural institutions have been replaced with inclusion and exclusion impacts of ambiguous cybernetics feedbacks. Besides, express and communication among political orders have been reduced or increased to technocratic reasoning (e.g. values) by the technological manufactural socio-cultural memes in the process of global subjectification.

Social cybernetics includes a complex form of psychological and sociological precession, infantilization and recreation of technological complication in new extending inequalities and injustices by the techno-social conflicts, but it also shapes a humanitarian liberation under the guise of democratic utilitarianism, such as emphasising the freedom of connect and open interactions into new global and feasible spaces (Wiener, 1964). In this sense, any technological development, innovations and interventions are actually not technical, they are inherently in the social distributed networks, any technocratic reasoning has been personalised as a social form and acts like a neither a cause or an effect. "Power does not reside in institutions, not even the state or large corporations. It is located in the networks that structure society" (Castells, 2004). For this reason, social cybernetics is both visible and invisible, but it is a form for all global technological commoditises, including human being (Luppicini, 2010). Thus this paper is interested in arguing how the definition of DD leads technocratic reasoning in which societies of globalised control cannot be separated from speculation, accumulation and circulation of technological commodities that lead an unspecific but an extension of social contract in any developed or developing nations throughout technological education. Political philosophy is then inseparable from ethnics of social cybernetics because the relative issue is rather assemblage of abstract technological control.

The Literature of Digital Divide

Initially, the digital divide (DD) was perceived as the dichotomous standpoint which elucidates DD as a twofold metamorphosis in the middle of possessing and not possessing, utilising and not utilising, and deliberating and not deliberating how to practice technology as having and not having knowledge pleasure seeking. From this consideration, the explanation of DD is realised as technological impartiality and so technical egalitarianism; DD would stop as soon as all of us ought to entrée to technological capacity. This dichotomous standpoint has been constantly argued, in an actual comparable disposition, by a variety of theoretical academics, with regard to particular aspects, such as its deficient appreciation of this topic in question. DD is deliberated as a manifold-interested and manifold-significant singularity which is complexly shaped as values of inequity of financial, communal, national and administrative felicities through societal assemblies (Tapscott, 1998).

In the multidimensional perspective, Wilson (2006) clarifies DD into eight facets: *Physical Access* (access to technology infrastructure and components, and their applications); *Financial Access* (correlation between expenses of technology services and individual annual income);

Cognitive Access (digital literacy, skills and knowledge); *Design Access* (usability of each technology device and application); *Content Access* (availability of appropriate technology applications); *Production Access* (potential of creating users` own content); *Institutional Access* (accessibility of institutional application and activities) and *Political Access* (availability of government applications such as legislation process, judicial decisions or sentence, capacity of critical analysis of government decisions) (p. 301). In parallel with Wilson, Selwyn (2004) draws a different picture of DD through the relationship between individual and community. His perspective is that; not only does DD exist in disparities between those who have *access and desire and skills and personal/physical feasibility* in terms of being able to use technology and those who have not *access or desire or skills or personal/ physical feasibility,* but it can also be seen in its own consequential benefits within/to individuals and communities. As a result, there are four theoretical and conceptual stages of limitation notably; *access*, *usage*, *engagement* and *consequences*.

For DD, the first obstacle is the access stage, which is not totally but mainly driven by physical and financial access. The main factors of the access stage are; sufficient technological infrastructure, affordability of its service structure and requirements (electricity, telecommunication, etc.), ownership of/access to technology (computer, printer, etc.). In addition, quality and quantity of this accessibility is also important, such as the availability of technology at home, work place, mobile (remote) and/ or local facilities, technical differences, completeness, and speed, to mention only a few. Access to technology is clarified as hierarchical construction, not binary (have/have-not). What is important is the extent and quality of access to technological capability. In practical terms, providing universal access to technology cannot ensure a guarantee of usage due to additional requirement of digital literacy and skills. The Central Intelligent Agency`s estimates that 750 million illiterate adults live in only eighteen undeveloped countries and this means that they are already excluded from the information society (2016). Scholars underline that there are significant inequalities in access to/ usage of technology as a consequence of inequalities in digital skills. It is commonly emphasised that younger generation or those with a higher educational level, better socio economic standards or more online savvy (frequency of use, online time spent and experience) have better digital skills. Nevertheless, not only does digital literacy and skills affect the level of technology usage, but also cultural capital. This type of capital determines the breadth of understanding of technology, such as how well envisioned and integrated technology is to society, and in what manner people intentionally or unconsciously use, socialise, respond to and interact with technology. For instance, the literature states that people who have a high education level use the internet for information and service oriented aims while people who have low levels of education use technology for merely entertainment. Thus, DD is also the information divide which is driven by the ability to operate technology and how well known technology is within a society.

DD is not only access and use of technology but also the significance of technology usage. To understand engagement of technology, technical, political, personal or psychological factors need to be considered. There should be appropriate circumstances and opportunities for any individual to use, create, control and manipulate their own content. Access to technology is empty unless people truly sense the ability to compose such prospects. In this context, this is known as *second level of digital divide*

or *second digital divide*. Kvasny and Keil (2006) clarify second DD as "the considerable difference in people's ability to find various types of content on the web and time required to complete online tasks" (p.27) and distinctively, second DD is disparity in access to social networks and information through the internet, being online is not identical as being attached to a society of others. Kvasny (2006,) called it the '*digital inequality*' instead of '*second digital divide*'. His aim is to emphasise disparities in access to technology (access and usage stages) and adaptation of the access (engagement stage) through pre-existing social inequality. He defines digital inequality as, "...not only disparities in the structure of access to and use of technology; it also reflects the ways in which longstanding social inequities shape beliefs and expectations regarding technology and its impacts on life chances" (p.120).

The technical factors are; inability of access to appropriate hardware, software and the internet content via ones mother`s tongue and alphabet and/or socio cultural backgrounds and their usability and feasibility, such as user friendliness, disability support, etc. Issues with these technological factors appear to indicate significant obstacles to meaningful access to technology opportunities. It is unrealistic to expect end-users to produce their own content by technology if they are not already reflected within it. While, UNESCO (2005) suggested that the internet should be culturally and linguistically diversified under the consideration of race, age, and gender, the Internet World Stats (2018) report indicates that 84.3% of the internet website is based on ten main languages notably, 25.3% English, 19.4 % Chinese, and 8.1% Spanish which is only three languages accounting for half of the total internet content. .

The political factors are; where, when, what, how and to what extent technology usage depends on political and institutional decision makers. There are significant advantages for any community where the government institutions and organisations have passed into the online world to create, support and maintain more open, fast and dependable relationships between a government and its citizens, and to facilitate citizens participation to government applications such as e-government, online voting, healthcare support, social service and legal advice etc. In political and institutional access, other points of consideration are that of the internet regulation and rating/filtering tools through individuals, local, national and supranational level. There is no international consensus on the internet's rules, and this has led to further discussion around the complexities of access to whole and limited internet.

Norris (2001) also coined another term as 'democratic divide' to describe how policies related to technology, such as the internet, change how political power manifests on social media in different countries and systems, which can lead to the inadequate circulation of political power and a commiserate impact on political schemes (p.193). Besides these, there is now a technological legislation divide created by differences between the approaches of democratic and authoritarian governments towards online activity, and this divides is creating complications in legal frameworks on both national and international levels. Many of populations are not concerned about legal and/or illegal actions on the internet; even many government organizations pay little heed to such issues, which have allowed such consequences as cartels and lobbying groups using the online sphere for illegal or legal activity with little oversight. According to the Universal Declaration of Human Rights, 1948, "everyone has the right to ask for legal help when their rights are not respected" (No.8); if the pace of technological development is increasingly accelerating, and current legislation is following behind technological movements within a nonstop torrent of singular regulations and principles, the need of professionals to deal with issues of

technological legislation is essential. The informally recognised technique to bridge the technological legislation divide is the establishment of resources for lawful advocating. As authorized actions and constitution judgments are applied to the society overall, everyone is theoretically capable of or has the right of entry to information about such legislation. Obviously, the majority of population will not be able to make use of this information to the equivalent degree as an attorney or lawful academic can. Nevertheless, there will be second technological legislation divide (between technology experts and non-experts) or a third technological legislation divide (between international levels), and so on. Due to technocratic e-totalitarianism or democratisation, citizens of any nation regimes need 'new lawyers' to survive in the future.

Besides these, the personal and psychological factors include an individual's position (time and location), personality, motivation, expectation, and need towards technology (Downey and Smith, 2011). These factors affect their engagement of technology. The literature has stated that people such as Technophobes or Amishes, who do not want to use the internet, lack the motivation and interest because they think the internet is unnecessary, unsafe, harmful and difficult to manipulate (Brosnan, 1998). The psychological aspect is mainly driven by social capital which is defined as "the benefits that one can potentially derive from participating in communities and networks" (Kvasny, 2006, p.165). Face-to-face or online communications, such as peers and parental positive/negative pressure are social factors exerted upon users, and these interactions affect their online behaviour. According to Steyaert and Gould (2009), "information behaviour becomes the main driver of the influence of technology on social exclusion" (p.8). Social networks are not the same as computer networks and the concept of equality of internet access cannot ensure the concept of equality of social network access. "Online behaviour is not independent of existing social inequalities" (Hargittai, 2006, p.20). In this sense, there are mutual interactions between social structures and technological opportunities; each society has formed and developed their own content, support and maintains them through technology; but, current social structures are in huge stratification and some societies have already obtained their own socio-cultural online content.

Consequential benefits associated with the use of technology are compiled as products of economic, cultural and social capital. Although there are no actual boundaries between these forms of capital, the economic capital can be seen in the access stage (have technology); the cultural capital can be seen in the usage stage (how to know technology) and the social capital can be seen in the engagement stage (creating meaningful online opportunities and supporting within/to individuals and communities). These capitals have constitutive factors of promoting the individual consumer to turn into the producer and distributor of their own goods. Importantly, the impact of technology depends on the extent to which the individuals, who are attracted and supported by access to technology in their daily lives, engage to a level where they can self-realise, participate and enhance their learning and leaning of others (community) to achieve better `social quality` such as, self-learning, better representation of government and individuals, and improving government and citizens relationships, altering the labour force (flexible and self-developed employees, new job opportunities), etc. There is also a route for how to evaluate the outcome of DD; it is driven by the extent at which individuals and communities have achieved five online activities namely; *production*

activity (looking for information on education, job or career), *political activity* (participate in any organisations as charity giver or environmentalist and reach local and centre government such as e-government, online petition etc.), *social activity* (online interactivity with peers or family), *consumption activity* (buy/sell goods online), *saving activity* (social security).

To diagram a DD framework, the relationship among the four theoretical limitations could be conceptualised based on Selwyn`s perspective illustrated in the figure 1. A community that intend to reach the consequences stage (bridging DD) must progress through the other stages with the majority of the group; because, according to Wilson (2006), all disparities are not exactly the same as DD; the gap should be remarkable and distinguishable. The community could be seen as segmented in the framework as long as the Design, Content, Production, Institutional and Political Accesses allow it. The important point of this framework is to be totally dynamic, not static because of the fact that technology is always developing so its requirements are dynamic. The community could be forced to move back from right to left direction when new innovation emerges or any change occurs (Re-movements) in the century of technological singularity (era). Eight accesses by Wilson could be put into the framework within three main positions (underlined). In this framework, the transition from the engagement stage to the consequence stage is driven by individual effort which is built on the techno-social capital. The techno-economic capital is from the access to usage, the techno-cultural capital is from the usage to engagement stage. All these are also influenced by the democratic and technological legislation divides, and further possible divides. Technology in that sense defines human being or social being. For instance who is disable or superhuman defined by relative technology or which nation is the leader or the follower in societies of control defined by relative techno-existentialism capital which give emphasis to the existence of the single technological movement as a free but irresponsible agent defining their own expansion through entertainments of the puzzling will.

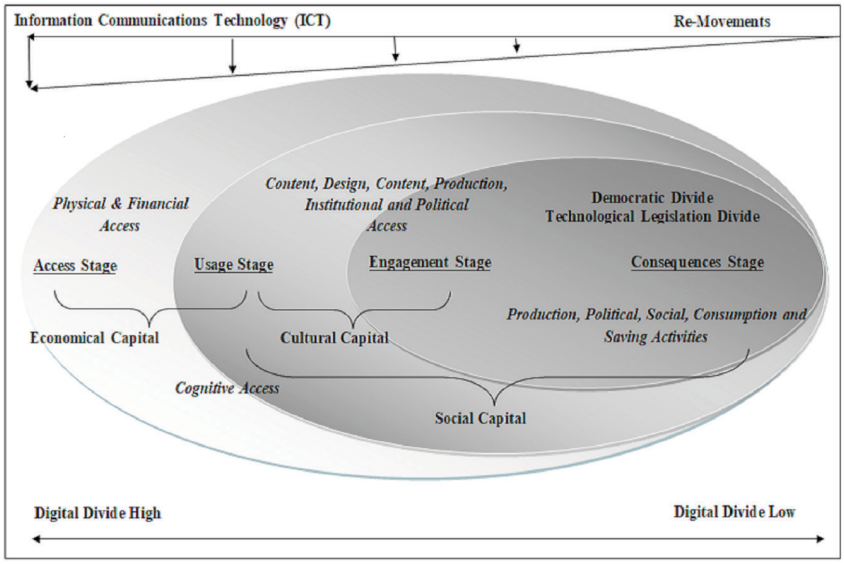

Figure 1: The Conceptualisation of Digital Divide

At this juncture, the argument detailing how a maximal DD arises, normatively, from a definition of its nature is now completed. It therefore behoves upon us to be wary and concerned about various doubts to the argument, and to comment further upon it, connecting it with some other relative issues, in particular societies of globalised control; thereby, the main thrust of the argument ought to be directly continued to the next section.

Technocratic Marriage between States and Corporations

The literature strongly suggests a universal liberal democracy with technological reasoning, but there is any possibility to create an institution to control of uncontrolled controller. Democracy will not survive until people are willing to have democracy throughout democratic institutions (Hornik et. al. 2007). In this sense, technological development is not like the biological development in which societies change and alter throughout history or over time. In biology we have certain types of genetic codes to be a human being. In the process of social development, we have certain types of cultural codes to be a particular society. These developments have particular and regular patterns. Socials communities have individuals and individuals have particular opinions, visions and wills. Is there any better nation to emulate for the technology education? There will be new ways of creativities needed to follow the future. Western nations change the institutional and constitutional principles for the future democracy. To some extent, the value of human being, such as dignity or principle is integrated with the educational system, but now this is all about technology education without a particular value of law (Akdeniz and Altıparmak, 2015)

In the subject of freedom and law, Karl Popper (1966) argued that historicists "were trying to comfort themselves for the loss of a stable world by clinging to the view that change is ruled by an unchanging law" (p.13). Therefore, unchanged law has been a real concern in the technological society, how to follow the technological enhancement with absolute legislative structures, or worse more and new authoritarian legislations. The principle of open society is critical to maintain to good rules and improve bad ones; the enemies of open society are people who use dreams of a utopian society to justify extreme beliefs and totalitarian practices. Thus, the argument is whether or not we can have absolute openness, defined by Popper as a society which is *tolerant*, *responsive* and *transparent,* and for these principles not to be governed by utopian ideas. In this sense, there are open systems in which all information is exposed to public inspection and each policy is formerly approved or rejected by the citizen body. Citizens are the senses and sensors engaging all public services, but there are still some policy sectors which are dominated by governmental bodies without citizen input. The question is then whether or not an alternative legislative body could be established to collectively create meaningful social networks to authentically provide meaningful oversight in this political dilemma. There are open systems in which all information is exposed to public inspection and each policy is formerly approved or rejected by the citizen body. Citizens are the senses and sensors engaging all public services, but there are still some policy sectors which are dominated by governmental bodies without citizen input. The question is then whether or not an alternative legislative body could be established to collectively create meaningful social networks to authentically provide meaningful oversight in this political dilemma, or let the internet to be.

In Karl Popper's book *Open Society and Its Enemy* (1966), we will be able to understand a bit more about open society by first considering its enemies. In the modern world, technocratic totalitarianism is the enemy in which something cannot be discussed or questioned and the right to freedom of opinion and expression is not protected by the state laws in even many developed nations. They are the primitive enemy of open society from the very outset with their unquestionable principles. According to Popper (1966), all political actions inevitably have unintended consequences, and some of these unintended consequences may have become obnoxious and intolerable for that particular society. This may not due to imperfection in the political action in and of itself, but the result of the relationship between the action and society. In this sense, what we ought to have in an open society is the capability and potential for those who are influenced by political actions to be able to criticise these actions and the law makers (technocratic governors) who initiated them. In closed societies, governors are mainly impervious and impermeable to criticism. They do not read, listen to or feel criticism. They are not willing to listen because they think the known they know cannot be known by others, as the Governments and Bureaucrats of USA do not desire to hear not only critical but also reasonable arguments from Edward Snowden (2015): "You don't care about the right to privacy because you have nothing to hide is no different than saying you don't care about free speech because you have nothing to say".

In open societies, instead of closed and unquestionable set of principles as in the Figure 1, the public relate to piecemeal political actions by watching developments closely and responding in turn, thus changing and influencing the application of policy in a continual learning process. This open society may also be referred to as the ultimate participatory democracy, in which there is real self-government by the public, who are directly involved in the decision-making process. Participatory apparatuses such as legal resident initiatives acquire more rights of legality. It is significant to remember that since political participation is engaged in by the public despite limited knowledge and interest and may not lead to genuine decisions, the public remains an essential part of the political apparatus, as they are the ones who listen to the speeches and to whom all discourse is addressed. What is the main principle of open society is that "it is important to tackle it early, for it constitutes a danger to democracy. We must plan for freedom, and not only for security, if for no other reason than only freedom can make security more secure" (Popper, 1966, p.390), especially now if DD is defined as in the Figure 1.

"All that is necessary for something to evolve, according to Dawkins, is a faithful but imperfect copying mechanism for instructions and a system that is ready to obey those instructions. DNA and the cell fulfill these requirements. So do computer programs and computers. And so do memes and the human mind" (Dawkins, 2011).

Due to the techno-social memetics lifestyle which is basically a constituency of a cultural system of behaviour copied from one person to another by imitation or other non-genetic meanings, supporters of technocratic marriage between states and corporations (e.g. e-totalitarianism) have no concerns about the dilemmas confronting us regarding the issues of e-democratism, such as peacefulness versus terrorism, multiculturalism versus chauvinism; cosmopolitanism versus individualism; and so forth, to distinguish between the cyber-thought and cyber-action of societies. That is the crucial

question and mainly neglected, indeed decision-makers postulate that no action is needed; it can be safely ignored as long as their power remains intact. However, there are actions which could and should be taken, such as establishing stable rule of law (perhaps, in the United Nations). In this sense, the actual question is who decides for whom: do the public decide by themselves within democratic structures or leave the privilege to technocrats (controllers of controllers without the democratic structure, such as courts). The critical point is that decisions affecting the public should be decided by the public and not by bodies of privilege. In order to understand and react to these dilemmas and the threat of undemocratic privilege-based orchestration, the public needs real freedom, privacy and liberty. As, the argument from Agamben (2003), the exceptional situation is delimited in the constitution and rules, nonetheless on the boundary of the rules denotes to a particular zone where the law-making, implementation and jurisdictional authorities do not divide and where the autonomous is in full power.

What the important thing is, 'being asked what was the most beautiful thing in the world', Diogenes replied, 'Freedom of speech' (cited in Hicks, 1925, p.13). Nevertheless, opponents of open society might repeat the concepts of self-regulation, claiming that democratisation is defined by fairness and justice, while belittling freedom and equality. Within the global political economy, we have a little information; global power dynamics are so complex, not simply flowing from one way to another. Democratisation is not simply voicing support for democratic principles, but actually putting those principles into practice. Otherwise, claims of democratic principles become merely pretexts and justifications for authoritarian behaviour and structures. Since the future is uncertain and there may be failures to progress, decision-makers claim they need to modify the system by governmental intervention in cooperation with corporate giants in order to overcome issues faced by the public. They claim such interventions are indispensable and inevitable. However the public is not and has never been simply playing pieces in a board game which can be moved one place to another, any democratic regime needs stable and secure rules with actual and practical democratic principles within the rule of law. For instance, Agamben (2003) rejects to study the particulars of permitted and constitutional expansions; rather his emphasis is exactly on the foundation of juridical administrative progression that sets the restrictions contained by which, for instance, Supreme Court is in forced. In the state of exception, Agamben (2003) argues "the complete separation between philosophical and legal cultures [and] the latter's decline" (p.37) whatsoever their defects as inclusive or convincing explanations, establish fundamental and confidently debateable experiments to the principal version of contemporary rule's extension as a modest and essential international allowance of the rule of law. "One day humanity will play with law just as children play with disused objects, not in order to restore them to their canonical use but to free them from it for good" (ibid, p.34). Therefore, the processes for settling techno-social disputes have not yet been satisfactorily and universally decided, even within the multi-national democratic bureaucracy of the EU, and there is as yet no consensus between governments on how to establish such processes in the cyber era.

The fundamental constitutional question is whether or not unselected courts should have power or authority to establish limits on what democratically elected governments or globally orchestrating corporations may or may not to do in particular traditional democratic system. Actually it is not

an actual dilemma because democratic systems (such as parliaments, technocratic technological reasoning) already ought to give the right of order to courts due to the principle of separation of powers that makes sure that those who make the laws ought to be liable to those laws. Nevertheless, our freedom of choice in a modern civilisation is encapsulated by the principle of technology that if a single individual declines to please our needs we may turn to someone else due to known or unknown technological singularity. An entrepreneur liberal democracy is a scheme in which the public have approaches to contribute to the decision making-process, and the rule makers cannot break them by conquest, captivity or strength (although it would be repeatedly considerable more suitable to do so). This pressure is a ubiquitous problematic for democratic civilisations, recognised as the 'core crisis of democracy' by Chomsky (1992, p.334). There are too many individuals who demand to contribute to the public judgement ground to be prepared into intelligible administrative organisations. Consequently, the harmony frequently desires to be manufactured to stretch the impress of democratic decision-making despite the fact that in truth maximum of the real influence of decision making lies with logical best able who dedicate themselves to political difficulties too multifaceted or troublesome for the public to resolve, as in the plutocracy. In the definitive libertarian literature, liberalism pursues to limit the huge control of the state and defend distinct human rights, but in the sense of the international technological term, this statement is ambiguous, since private corporate giants are supposed as a separate performer, not as shares of state power centres. Currently, liberalism has the denotation of 'state capitalism' because of the great degrees of state intervention in the international financier economy so as to defend private administrative corporations' benefits and schedules. That scheme might be similar to a method of democracy but in the definite delivery of shared and communal goods is not predominantly democratic. Capitalism is not only class conflict but also rest on the advancement of technological information. The manufacture of knowledge is what desirable for anthropological civilisation to govern who possesses that knowledge. Consequently in each period of anthropological past one class kept most of the resources of manufacture, and it was moderately flawless they did so.

If we are under the control of a monopolist or plutocratic system, we are at their mercy. And an authority leading the entire technological structure would be the most influential monopolist imaginable. Importantly, in democracy people ought to have the freedom to do wrong, which is the fundamental principle of being a human, but all states must presume innocence until guilt has been established and proven beyond doubt. We should not have to fear that authorities with technological reasoning would misuse their power in a way a private-public monopolist would surely do so, but with extreme technological expansion there are more opportunities for partnerships between government and corporate bodies to establish systems of control and techniques which manipulate the public into accepting their positions and legitimacy. Their intentions are not simply to choose what commodities and facilities are accessible to the public and in what amount, but to consolidate power and exert control over the public. Technological technocratic orchestration is thereby designed to maximize the power of government-corporate partnerships to encourage the discourse they favour while suppressing or hiding evidence of criticism, such as the American response to WikiLeaks and the Chinese government's censorship of sensitive search terms on social

media platforms. These partnerships seek not only to monitor our everyday lives and every breath we take, with the public taking the role as the mere object of their technological orchestration, but they even seek to co-opt the public as disseminators and propagators of the government-corporate line themselves. These two techniques of control are tightly intertwined, and can only be realistically and reasonably counter-balanced by an equivalent commitment to open society and the rule of law within democratic principles.

"Rightly understood, democracy is more than a regime; it is an interacting system. No single arena in such a system can function properly without some support from another arena, or often from all of the remaining arenas. For example, civil society in a democracy needs the support of a rule of law that guarantees to people their right of association, and needs the support of a state apparatus that will effectively impose legal sanctions on those who would illegally attempt to deny others that right." (Stepan, 2011, p.304)

Society of Global Control

"Civilisation is impossible without traditions, and progress impossible without the destruction of those traditions. The difficulty, and it is an immense difficulty, is to find a proper equilibrium between stability and variability" (Le Bon, 1896, p.49).

Various techno-social movements emerged in response to the new equilibrium between technology and society. For instance, techno-progressives are attempting to find a middle ground approach between techno-utopianism, derived from libertarianism, transhumanism, and extropianism, and techno-conservatism, comprised of both left and right wing bio-conservatism and neo-luddism. This middle ground approach represents an effort to find positions between absolute acceptance and absolute rejection of evolving technologies. Techno-progressives intensely follow the development and usage of social augmentation technologies and believe such technologies should be openly adopted worldwide. Techno-progressivism emphasizes the technological and scientific scope of social advancement, along with ethical concerns. From a techno-progressive standpoint, the progress of scientific understanding or the increase of technological controls do not in themselves represent progress unless there has been sufficient and clear analysis of the challenges, hazards and benefits of this new information and awareness. True progress must be defined by improved democratic principles, increased fairness, less coercion, and the extension of human rights (Sicko and Brewster, 2010). They argue all these criteria are required but have so far been insufficiently met by modern technological societies due to selected implementation values and levels of implementation in practice. Strong techno-progressivism emphasize that citizens must have an awareness of their rights as they exist currently and as they could and should be expanded in the possible future.

Similarly, democratic transhumanism put particular emphasis upon the significance of progress and readiness of new technologies to increase the scope of human experience while also transforming it (Hughes, 2004). They focus on how both private and public capital may advance technological progress as well as the expansion of individual human rights through such progress. They recognize the potential for emerging technologies to have both positive and negative effects

on society and seek to accentuate the former while limiting the latter. This movement holds to a worldview of methodological progress towards a world defined by secular liberal values, comprising democratic government, ethical and spiritual diversity, and moral pragmatism. They are inclined to see the potential of free market legal structures to promote and support these liberal values. The core value of democratic transhumanism is the 'well-being of all sentience', and the pursuit of this ideal forms the legitimizing basis for massive investment of capital into the progress and increase of human knowledge.

Besides these movements, the dialogue around the usage of the internet by various mediators in democratic governments has separated intellectuals into two politically diverse groups: 'technology utopians' whose supporters (also called 'technology evangelists' (Lucas-Conwell, 2006)) are attempting to shape a critical corpus for support for technologıcal progress as the basis for practical standards in the free marketplace, emphasizing network effects. In particular, they are interested in the usage of the internet as a 'soft power' for the external democratic apparatus. On the other hand, there are also 'technology dystopias' (e.g. luddites, neo-luddites, and so on among other debunkers' (Glendinning, 1990)) that have many critical philosophical concerns and a more pessimistic outlook on technology. From this point of view, it is essential to conceptualise technology in society, and so DD. Noticeably, the defined four stages and eight accesses of DD in the Figure 1, have very diverse insights of struggle in the equal opportunities of technology, and their clarifications, but it is obvious that the momentum has its 'modern' sociological expectations, performing as a Techno-utopianist or, a subjugated technological-determinist or what Deleuze and Guattari (1972) titled it as "neoliberal technological capitalism in societies of control" (p.358) in which the association is beginning form averages of societies to enigmas of behaviours by the neoliberal corporate manipulation. Control societies are whole some inauguration, not the mean of completion for organising social technological interaction through scientific memes. So, the conceptualizing the figure 1, DD proposes a rigid order of the content and means of considering DD, it nonetheless leaves it's intertwining unspecified in terms of philosophical ground, because

"There is always 'the paradox of freedom'. Freedom, we have seen, defeats itself, if it is unlimited. Unlimited freedom means that a strong man is free to bully one who is weak and to rob him of his freedom. This is why we demand that the state should limit freedom to a certain extent, so that everyone's freedom is protected by law. Nobody should be at the mercy of others, but all should have a right to be protected by the state" (Popper, 1966, p.333).

Conclusion

Globally, governments assume that public ought to focus on how technology can adequately meet the needs of individuals, but the focus ought to be instead by on how technology should meet the needs of societies, due to the risk of technological dangers, such as expanding surveillance. When technology fails to conform to democratic principles, how are we to respond and adapt? Most importantly, who is most affected by such failures? The singularity of cybernetics increases the uncertainty of internal responsibilities and accountability on national, multinational, international,

transnational and even individual levels! The literature actually goes beyond the dichotomy between cyber-enthusiasm and cyber-scepticism, and discusses that scholars ought not to assess digital technology as an apparatus of democracy through the lens of previous, offline democratisation (e.g. parliamentary representations) (Morozov, 2011). It is now extensively assumed that "no tool is good or bad in itself; its effectiveness results from and contributes to the whole configuration of events, activities, contents, and interpersonal processes taking place in the context of which it is been used" (Salomon, 1993, p.118). However, many disagree with this assumption. Modern or even traditional technological tools are not simply neutral, they are not a simple hammer to hit with; they are something else. As Melvin Kranzberg's first law states: "Technology is neither good or bad, nor is it neutral." (1986, p.545) It is not really about what the technologies are; rather what is important is how they are utilized and how they came to be. Technology now in itself can be socio-political and always it has been, as seen in the example of the 'Low bridge of Long Island Parkways' in New York City which were intended to separate poor and blacks from white wealthy clubs through deliberately racist design (Winner, 1986). There has been a critical philosophical difference between Free Open Source Software and Closed Property Source Software since 1980. So, technology may be a tool to orchestrate the loss of our liberty and solidarity, seen most saliently in the argument over privacy versus security, such as the controversy over WikiLeaks releases. Consequently, we need to be sensitive and insightful while applying any model of technological governances in reference to system of any particular democracy. In the matter of technology education,

"Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors." (Watson, 1930, p.82)

According to theory of behaviourism, the driving behaviour of society is not love; rather it is 'fear' and behaviour is then so predictable, and therefore controllable. The only question is then who ought to apply the ruling process, as in the words of Cardinal De Richelieu: "If you give me six lines written by the hand of the most honest of men, I will find something in them which will hang him" (cited in Hoyt, 1896, p.763).Thus, one of the crucial questions then is that what kind of responsibilities (e.g. compensation strategies) and accountabilities (e.g. sanctioning mechanisms) ought to be given to whom while both corporate giants and governments (controllers) have been growing in power significantly without taking into account of the ethical concerns of cybernetics: e-totalitarianism, e-authoritarianism and/or attempts by relatively democratic governments to govern, coerce and even arrest their own citizens for their (innocent or unpredictable) online activities. Yet what is surely accurate is that "society does not pose for itself tasks the conditions for whose resolution do not already exist" (Karl Marx, cited in Perlmutter, 1988). Many scholars already considered that the key concerns of cybernetics were addressed by Marx. Accordingly, many dilemmas we are facing, hypothetically, are analogous; such as to what the degrees of equality, justice and freedom ought to be. The technology society has created new logic and reasoning which has rendered the answers to these questions as presented in older constitutions obsolete. Undoubtedly, we are at present in a knowledge-based economy which has optimistic and pessimistic impacts upon

many national entities, even very wealthy nations. In this regard, then Deputy Secretary-General of the United Nations Jan Eliasson stated in the World Economic Forum in the Global Agenda 2012 Conference: "If international corporations have become the problem we are in a dark age, that is why we are involving international solutions … Good international solutions must be seen as national interests" (the time: 20); "Global and local is the same, global is actually somebody else(s) local" (the time: 37). Consequently, what is obvious is that cybernetics is the faculty of 'sensing to leading', but is generally linked with the perception of domination, typically in terms of totalitarian approval or disapproval, in present mechanisms of technologies, humans and their commissure in which one group attempts to govern another. As expressed most elegantly by the song by Boards of Canada: "If you can be told what you can see or read, then it follows that you can be told what to say or think". Therefore, the study holistically argues that we need to reconsider the philosophy of technology within defining DD and its limitation stages.

The global contest in the figure 1 is which of the organisational networks in the present and following age groups drive the control of societies since the networks are not actually the answerable and liable scheme, these are not designed to have orders and equilibriums self-control. This schemed is plays itself as a higher than the values of modern liberal egalitarianism in numerous progress states nonetheless it has an organic matter that would be elucidates as open-minded or prejudiced primary influence. The request is at that juncture converted the probable competence (Deleuze, 1992). In the upcoming era, we requisite a national and specific technology which does definite belongings in the civilisation. Additionally, we requisite 'rule of laws' which essentially restricted the government and technology of influence to defend the civilisation. Finally, we requisite answerability and duty in which the administration and technology reply to whole people, not impartially to its own constricted interests on the deliberation of DD in the figure 1.

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