

Culture, Technics and Data: on the enclosure of contemporary environment.

Introduction

The COVID-19 crisis that hit humanity in late 2019 led more and more people living confined. Countries closed their borders, built up walls to lock entire districts down, and commanded their population to remain isolated. In a recent video interview, Emmanuel Macron coined this method to contain the virus as "medieval" (LCI, 2021). Despite the significant technological development that Humanity has come to achieve over five centuries since the end of the Middle Ages, people were left to suffer the same fate as then. This crisis has unveiled many aspects of our time and exacerbated others. One is that the extent of the world available to numerous people has shrunk considerably during this period. Physical movement has been constrained and our range of potentialities has reduced.

Some might argue that digital technologies have enabled us to partially break free from isolation, by keeping our social relationships alive during this period. People have had to adapt to continue working, studying, living. And this adaptation has largely been achieved through screens. I argue that this crisis has mostly unveiled and exacerbated the fact that the promise of enlargement made by digital technologies has in reality been traded with an environment that has been increasingly closing off since the spread of smartphones, social media, and digital platforms. The term environment here needs to be understood as including both the physical and the virtual world we live into.

This assessment may seem counterintuitive at first. Indeed, the quasi-instantaneity of communications changed our relation to time and space. Anyone can now video call somebody on the other side of the planet. Financial transactions performed algorithmically challenge human rhythms like never before. Learning new languages have become more accessible, people born in faraway countries can meet on forums and online games. Former borders are no longer. For these reasons, one could argue that our available environment and potentialities have increased.

In this essay, I am going to argue that a digital enclosure has been developing in the last recent years. Notably as a result of the process of datafication that accompanied the spread and development of digital technologies around the world.

In 1965, Gilbert Simondon attempted to put an end to the conflict between Culture and Technics. While these two notions have long been understood as conflicting, the French philosopher of technology suggests that they are much more similar than one may expect. Indeed, in his view, they are both techniques of human manipulation. However, their methods differ. In this essay, I am going to draw upon this work for a reflection on the enclosing nature of digitization. Then, I am going to investigate the consequences of this enclosure for human society, notably in terms of becoming.

Environment

In our current time of ecological distress, the notion of environment is everywhere. Although, it is often used to refer to the physical world that surrounds us. Politicians, organizations, and public opinion are calling to "save the environment" by adopting more sustainable modes of living. Media theorists, on the other hand, tend to understand the notion of environment differently. As John Durham Peter stated in 2015, "[m]edia are our infrastructures of being, the habitats and materials through which we act and are." (Peter, 2015, 15). Following this reasoning, our environment is not only composed of forms and matter in a physical world. It also entails the virtual worlds in which billions of people currently sustain relationship, create value, learn, and live every day. This conception significantly broadens the scope of the endeavour to "save the environment". It also forces us to pay more attention to the composition of the environment we actually live into. I will come back to this point later in the argument.

As previously stated in the introduction, Simondon developed a reflection on culture and technics that bring the two notions together despite the widespread conflicting conception that many thinkers have sustained. According to him, the view that opposes culture and technics generally considers culture as belonging to a *kingdom of ends* while technics belong to a *kingdom of means* (Simondon, 1965, 18). (explain that). According to this opposing conception, technics are reduced to a utilitarian aspect that serves culturally defined objectives.

Although, Simondon argues, culture is the "raising [*élevage*] of man by man" (Simondon, 1965, 18). This 'raising' is often performed through education at the youngest age. Through institutions like schools and religious organizations or through traditions transmitted by the family. Technics, on the other hand, acts on the environment. Like cultivation (*culture* in French) that modifies the environment in order to increase the quality of rice and the productivity of its harvesters. The carved mountains that surround the Vietnamese city of Sapa are a good illustration of the effect of cultivation on the environment. As a result, both culture and technics share the same essence. They are "activities of manipulation, and thus techniques" (Simondon, 1965, 18) that enable the human species to survive. The difference between the two lies in their mode of operation. Indeed, culture acts directly on humans whereas techniques act indirectly on humans through what the author calls a *feedback effect* or *action* (Simondon, 1965, 19). The Sapa mountains were carved for cultivation purposes, which is to say for survival. Once these mountains were redesigned by the hand of humans and specific routes were drawn, harvesters had no other choice than to follow these routes. Their behaviour changed to adapt to this new environment. It is in this sense that Simondon claims that "Man is the technician of the human species" (Simondon, 1965, 18). The effect of the feedback loop in our example of the Sapa mountains is rather mild compared to the one that has shaped our environment since the industrial revolution.

In addition to what has been previously stated, Simondon emphasises another confusion that leads us to consider culture and technics as conflicting. In his view, the supposed conflict between these two notions stems for the fact that there are two forms of techniques. More precisely, these two forms of technique are chronologically separated by the phenomenon of industrialisation that happened gradually from the second half of the 18th century. Before that, techniques were 'intra-groupal' and thus, 'intra-cultural' (Simondon, 1965, 19). It was reduced to its utility to serve cultural ends. Though, after industrialisation and the associated phenomenon of globalization, techniques gradually exceeded the dimension of the group. They became what Simondon calls "pure" or "major" techniques. They "have the power to outstrip the here and now" (Simondon, 1965, 20), they exceed cultural groups, and they are no longer justified by their mere utility. Instead, they are justified "by the system of functions and needs that they create through their own existence" (Simondon, 1965, 20). Industrialisation is therefore the condition for the perfection of techniques and technical objects (Simondon, 2012, 27-29). However, it is not a sufficient condition as we are going to see in the next part. Pure

techniques are what allow humans to take power over their own evolution as a species, through the modification of their environment.

In his first doctoral thesis, Simondon proposed to rethink the concept of individuation in the light of the notions of forms and information (2017). He emphasises the importance of the notion of *associated milieu* in order to understand the process of individuation. Contrary to the hylomorphic conception developed by Aristotle which explains this phenomenon by the coming together of form and matter, Simondon understands the individual as the "reality of a constitutive relation" with its associated milieu (Simondon, 2017, 62). The constantly evolving individual is "the complementary symbol of another reality, [which is] the associated milieu" (Simondon, 2017, 64). In other words, the ongoing individuation is the couple formed by the individual and its associated milieu (Roux, 2004, 50). The notion of associated milieu developed by Simondon proves useful to understand the notion of environment in the context of a datafied world, what composes it, as well as the relation to the individual.

Thus, we might wonder what composes this new environment that is the result of the development of digital technologies and with them, data. But first, it proves insightful to provide an assessment of the level of perfection of the technologies composing our current technical reality.

A true technological progress?

Simondon's conceptualisation of the technical reality allows us to think of human beings' condition in relation to their constantly evolving technological system. The latter is made of inter-related technological elements, objects and infrastructures that sustain each other. For example, in order to operate at their fullest potential, smartphones need to be connected to the internet and thus, necessitates the existence of servers, datacentres, and satellites. Our physical environment had to be modified for these elements composing the technical reality to exist: matter were extracted, buildings were built, etc. Intra-groupal and therefore, intra-cultural techniques got exceeded by post-industrial major techniques.

Following Simondon's reflection, when techniques become "pure" or "major" after industrialisation they shall no longer serve the ends that culture assigned to them. They can become free from utilitarian conceptions and express their true *meaning* and *direction*

(Simondon, 1965, 19). According to him, technical objects evolve from an *abstract* to a *concrete* mode of being (Simondon, 2012, 21-27). The concretisation of technical object necessitates standardisation and therefore, the establishment of an industrial mode of production (Simondon, 2012, 27). In this way, they can function optimally. Additionally, concrete objects hold what Simondon calls a "margin of indetermination", that is, a need for regulation (Simondon, 2012, 192). According to him, total automation goes against concreteness and thus, do not favour the object itself nor its users.

In 1965, the author emphasised that many of the technical objects that composed his environment did not display an optimal level of concreteness. In fact, the market mechanisms are not an ideal drive for true technological development. Indeed, companies pursuing profit accumulation consider technological performance and thus, concreteness, only as a means to gain competitive advantage. With equal profit and *ceteris paribus*, a company has no reason to pursue technological perfection in the object it produces. Quite the contrary indeed, as the planned obsolescence of many technical parts and objects demonstrates (The Light Bulb Conspiracy, 2010). Our environment is therefore filled with technical objects that are not concrete, as Schmidgen points out with the example of the Citroën D.S. 19 (Schmidgen, 2012, 16-17). Instead, they are "over-loaded with psycho-social overdeterminations that transform them into instruments of prestige, means for escaping or dreaming, ersatz objects" (Simondon, 1965, 22).

In *The Worth of Goods: Valuation and Pricing in the Economy*, Beckert reflects on the question of value and attempts to understand what attracts customers to purchase goods (Beckert, 2011). He points out three types of value namely, physical, positional, and imaginative value (Beckert, 2011, 106-107). According to him, those three types of value appeared in turn across the development of industrialisation and globalisation. Physical value corresponds to the difference that goods make in the physical world. In other words, these goods are valued for their pure utility (e.g., a simple chair manufactured by an artisan). Positional value corresponds to the difference that goods make in the social world. Like the Citroën D.S. 19, these goods also convey a symbol of social status. Finally, imaginative value corresponds to the difference that goods make in the "consciousness of the individual [...] in the form of the fantasies that they evoke" (Beckert, 2011, 107). These three types of value often combine, but the latter can be for instance illustrated by the recent experiential marketing turn.

As a result, this assessment leads us to argue that technological concreteness as Simondon understands it is not the only driver of valuation in the current economy. We are even led to believe that it is only a minor driver. Instead, true technological progress has generally taken place outside of market mechanisms and in particular, in military research. This is notably the case for the Internet. Although, as Naughton argues, the birth of the Internet must also be understood as having been influenced by economic, social, political, and ideological factors (Naughton, 2016).

In a reflection on the relation between data and the syntheses of social memories, Yuk Hui borrows the notion of technical tendency from Leroi-Gourhan to make sense of the development of digital technologies and the associated productivity of data as exteriorized memory in all aspect of our current lives (Hui, 2017, 315-320). Leroi-Gourhan distinguishes *technical tendency* which is necessary from *technical facts* which are accidental or contingent. As Hui puts it, the invention of the wheel is a *technical tendency*. That is to say, it is a necessary event in the evolution of all groups, of all cultures. However, the specific structure of a wheel created in a specific group is a *technical fact* (Hui, 2017, 315).

Now, following Simondon's theory of evolution of technical objects, it can be postulated that there is, theoretically, a concrete mode of existence of the wheel. That is, a unique type of "perfect wheel" that has been or remains to be created. This concrete wheel is open to exterior information, to regulation. In short, it holds a margin of indetermination. According to Hui, the constant production of data through digital technologies is an *industrial technical tendency*. By this, he means that the apparition of this phenomenon comes from "market and economic factors" rather than "the need to solve a specific problem" (2017, 320). Although I do not intend to contend this claim, I argue that it requires further clarification considering Simondon's reflection on culture and technics. Indeed, expecting the systematic production and manipulation of data to solve a specific problem would amount to trap technics in a pre-industrial assessment. In other words, it would reduce it to its mere utility which, as we have seen previously, corresponds to a misunderstanding of the true essence of technics. As mentioned previously, major techniques are self-justified. That is, "justified by the system of functions and needs that they create through their own existence" (Simondon, 1965, 20).

The production and the manipulation of data reach their full potential when they reach the largest possible volume. Analytics, statistics, and predictions only make sense in the context of

what is called *Big Data*. Kitchin (2014) emphasises that there is no universally agreed definition of this term. However, he points out six characteristics of *Big Data* namely, huge in volume, high in velocity, diverse in variety, exhaustive in scope, fine-grained in resolution, and flexible (99-100). Thus, *Big Data* seems to be a great example of major techniques since it can exist only in an overarching scope that outstrips cultural groups. Therefore, coining the large production of data in every aspect of our lives as an *industrial* technical tendency seems redundant since it can only happen in a post-industrial world. Also, understanding the factors that fuel this phenomenon in light of Simondon's idea of self-justification proves insightful. Because it enables to separate the context of emergence of this technology from its potentialities.

In other words, the justification of *Big data* comes from the system it takes part in and is not necessarily bound to it. It could, theoretically at least, justify another system of functions and needs that is not the one we currently know and experience. We may wonder what composes this system. What is our current virtual environment, one that justifies itself by market and economic factors, made of? How can it be understood in terms of potentialities for the individual and why can it be said to be confining?

Confined, even outside of the physical world.

As Hui points out, the development and spread of digital technologies and data has resulted in a large-scale synchronisation and homogenisation of gestures, memories, and habits (Hui, 2017). Indeed, the same platforms are used by billions of individuals. Algorithms curate content that is seen by people from different countries and cultures. Also, a short list of websites appears to be the most visited in a vast majority of countries (Alexa - Top sites, 2021). A phenomenon of monopolisation has taken place. As a result, most people's time and attention is captured by a small portion of virtual spaces. Additionally, these virtual spaces are by a large majority designed and operated by organisations with profit accumulation requirements (e.g., GAFAM). Access to digital techniques is significantly limited. The skills that are required to manipulate such techniques are often taught in specialised programs provided by higher education institutions, with the aim of applying them to profit accumulation activities within private organisations. Moreover, access to data remains limited (Kitchin, 2014, 192). The necessary resources to harvest, clean and manipulate data is often out of the reach of the individual. Organisations that have these resources generally do so with the aim of profit accumulation and are therefore incentivised to limit their access. Thus, individuals are left

estranged from their technics. From the technics that the entire humanity has contributed to develop through time.

The virtual spaces in which billions of individuals increasingly live do not allow true regulation in the sense given by Simondon. For instance, the video broadcasting platform YouTube displays the same interface with the same virtual tools to all its users. Millions of TikTok users constrain their virtual behaviour to a rather small set of affordances (e.g., scrolling, liking, producing content, etc.). In Simondon's terms, the regulative function of humans towards digital technologies can be said to be undermined. Humanity's virtual environment is therefore significantly similar in terms of infrastructure. And its possibility to act on it is limited compared to what could be possible. Humans are no longer technicians of their environment. But operators only, on the account of powers that seek productivity. Companies make use of data to capture attention (Celis Bueno, 2017), political institutions have datafied individuals' identities and behaviours as Foucault conceptualisation of biopower illustrates (Hacking, 1982; Foucault, 2004). Finally, scientists have used data to assert "truth". The concept of *infopower* suggested by Koopman (2019) offers an insightful reflection on the mode of operation of such techniques enabled by digital technologies.

Conclusion

The resolution of the conflict between culture and technics suggested by Simondon allow us to understand technics as a technique of manipulation that acts indirectly on humans through a feedback loop mechanism through the modification of the environment. Through technics, humanity acts on its associated milieu and on its own becoming following the process of individuation. Technics necessitate industrialisation to become "pure" or "major" in Simondon's terms, that is, to free itself from the utilitarian margin that was assigned to it in a pre-industrial world. However, as I have attempted to demonstrate, modern digital technologies are still often taken as means towards cultural ends. Trapped into a market-oriented system, the power of current technics is restrained. As a result, individuals' virtual environment is largely closed-off compared to what could indeed be.

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