

## Simondon and Transindividual Individuation: Technicity and Affectivity in Digital Networks

*Juan Manuel Heredia and Pablo Rodríguez*

The transindividual is a key notion in the work of Gilbert Simondon. Even if he didn't fully develop the scope of the transindividual, the multiplicity of senses he attributed to this concept has pushed contemporary readings to go beyond his intuitions in order to examine new theoretical frames for the understanding of the digital domain. We will first define the senses of the transindividual in Simondonian thought. We will then identify the readings and debates around these different axes. Thirdly, we will situate these axes in a conceptual map of how the transindividual is used to explain the relationship between technical networks and psychosocial processes in general, and then how it is applied to our social reality, which today is traversed by the conjunction of data, algorithms and platforms. Finally, we will offer our interpretation of this map in relation to our previous research on the topic.

The transindividual has to do with what in other terms is called 'social reality' within a dynamic in which different phases (not domains, not realms) of being are intertwined: pre-individual, individual and transindividual. The transindividual, in Simondonian terms, is a psychosocial phase that is traversed by different senses. Primarily, it possesses a prominent metaphysical sense and indicates a fundamental ambiguity between transcendence and immanence, as well as between anteriority and posteriority. In this regard, 'the transindividual is what is on the outside of the individual as well as inside him' (Simondon 2020: 342). It indicates the passage 'from the exterior to the interior and from the interior to the superior' (2020: 315) and it is defined 'as that which *surpasses the individual by extending it*' (2020: 314). Furthermore, it names the genesis of the psychosocial participations and the incorporation of individuals into groups (psychic-collective individuation), but also a previous reality: 'there is an anteriority of the transindividual relative to the individual that prevents defining a rapport of transcendence or immanence; the transindividual and the individuated do not concern the same phase of the being: there is a coexistence of two phases of being' (2020: 342). This chrono-topological and metaphysical ambiguity is expressed in the oscillations that define the prefix 'trans', which refers both to that which is 'beyond' and to that which happens 'through'.

Secondly, it refers to a sense of sacredness and spirituality: 'Religion is the domain of transindividual' (Simondon 2020: 276). This meaning, however, does not refer to a substantialised community or an institutionalised religion. Simondon warns us of this danger when he points out that 'there is a strong tendency to the interiorist or communal deviation of transindividual spirituality' (2020: 315). It follows that the transindividual is the source of religiousness without being a religion, as well as the source of the feeling of collective being without being a closed society. In this vein, the transindividual sacredness 'is the signification of the being as

separate *and* attached, as alone *and* as a member of the collective [. . . it] is the respect of this relation of the individuated and the pre-individual. It is essentially affectivity *and* emotivity' (2020: 278, our emphasis). The defining characteristic of this understanding of the transindividual is its focus on affective-emotivity, which sets it apart from inter-individual dynamics and plays a pivotal role in the processes of psychic-collective individuation: 'Affective-emotive instances form the basis of intersubjective communication' (2020: 274–5).

The third sense of the transindividual, which is closely linked to the previous one, refers to the field of meaning that structures the collective relation and thus resolves the disparity that animates individual subjects (the incompatibility between the pre-individual and the individuated). There is a 'transindividual [world] of significations [*Un monde transindividuel de significations*]' (Simondon 2020: 347)<sup>1</sup> that precedes language and sustains it as a possible vehicle of expression. That is, without this field of meaning there could be no psychosocial relations of communication and information. Thus, the transindividual is meaning and also the condition of meaning. It signals a symbolic auto-constitutive reality that transform the subjects into elements of a system in which they are symbols complementary with other symbols. 'There is no difference between discovering a signification and existing collectively with the being relative to which the signification is discovered, since signification is not of the being but between beings, or rather across beings: it is transindividual' (Simondon 2020: 344).

Fourthly, the transindividual also has an ethical dimension, which encourages excellence and *areté* at the cognitive, active and affective-emotive levels of human existence. 'Wisdom, heroism, and sainthood represent the three paths for studying this transindividuality, according to the predominance of representation, action, or affectivity' (Simondon 2020: 316). Furthermore, Simondon notes that these paths are not mutually exclusive but rather complementary. He adds that all three paths share a common quality: '*a certain sense of inhibition*, which is like a negative revelation that puts the individual into communication with an order of reality superior to that of everyday life' (2020: 316, our emphasis). Similarly, this 'transindividual ethic' is manifested in a 'desire for perfection' and openness (Simondon 2014b: 246), which is associated with the concept of a 'sense of individuation' as a process that articulates constituted norms and constituent values, and amplifies them into the becoming of 'a network of acts' (Simondon 2020: 377).

Finally, with regard to the technological sense of the transindividual, its significance is found in the closing remarks of the *On the Mode of Existence of Technical Objects* (henceforth *METO*), in which Simondon states: 'The technical object taken according to its essence [. . .] becomes the medium and symbol of this relationship, which we would like to name *transindividual*'; 'An inter-human relation that is the model of transindividuality is thus created through the intermediary of the technical object' (2017: 252–3). In the next section we will analyse these claims, the debate they have provoked, and their relation to the other senses of the transindividual.

## The Transindividual in the Technological Sense

The works of Bernard Stiegler and Muriel Combes were among the first to revisit the question of the transindividual in the 1990s, just after Simondon's death in 1989.<sup>2</sup> They are also paradigmatic of two positions in tension: the one based on the technical aspects of the

<sup>1</sup> See also Simondon 2005a: 309.

<sup>2</sup> The analysis in the following two sections was partially developed in Heredia 2025.

transindividual, the other with regard to its political scope based on the metaphysical sense and the link with the pre-individual.

Based on the only two works available at the time (*METO* and the two parts of *Individuation in Light of Notions of Form and Information*, henceforth *ILFI*, even though they were not published together until 2005), Stiegler focused on the process of concretisation of the industrial-technical object, in articulation with the notions of 'technical tendency' and 'exteriorization' (Leroi-Gourhan) and 'technical system' (Bertrand Gille), to conclude that a 'technical individuation' precedes and conditions psychic and collective individuations. This idea, absent in Simondon, is associated in Stiegler's vocabulary with a set of auxiliary terms (epiphilogenesis, grammatisation process, tertiary hypomnesic retentions) that underline the priority of the exteriorisation of memory and the human spirit in technical objects in the (re)structuring of psychosocial subjectivity. In Simondonian terms, mnemonics would be the pre-individual basis on which psychic and collective individuations, 'the individual and the transindividual' (Stiegler 1998a: 252), are constructed and transductively articulated.

According to Stiegler, after the industrial revolution and the formation of the 'technical system', technology assumes a specific and endogenous logic of evolution which (re)structures and conditions the rest of the social systems (economic, cultural, legal, etc.). In regard to the retentional devices, Stiegler argues that since the beginning of the twentieth century we have been witnessing a process of 'industrialization of memory', in which the economic system appropriates analogue technologies and directly affects 'psychic processes and collective identifications and differentiations; that is, individuation itself' (2009: 3). A 'co-operation of technics and science in complicity with industry' is thus established, and this new 'dynamic unique to technical beings' is nothing other than the process of concretisation in Simondon's work, although now it 'controls not just the becoming of the object itself but also of technical assemblages [ensembles]' and, moreover, 'the global mnemotechnical system itself' (Stiegler 2011: 188–9).

Muriel Combes questions the existence of a 'technical individuation' and rejects the assumption that the primary source of invention lies in a technical evolution that subordinates and structures psychosocial subjectivity. For Combes, such a view negates the political content embedded in the concept of collective individuation, which illuminates a form of social invention based not on technical objects but on the synergistic articulation of 'parts of a pre-individual nature'. The pre-individual, Combes stresses, is not an epiphylogenetic memory inscribed in technical objects, but a 'real potential' that manifests itself affectively and energetically in the subjects. In this sense, psychic and collective individuation has a 'political core' that precedes any addition or technical prosthesis, since this core is the structuring of collective emotions out of heterogeneous affectivities and potencies. In this sense, Combes develops the distinction between an objective transindividual and a subjective transindividual. While the former term 'applies to the description of the collective as a physical reality' (Combes 2013: 48) and highlights its energetic basis (in contrast to iusnaturalist political theories), the latter refers to the transindividual as a psychosocial process punctuated by affective-emotive dynamics, ending in the notion of the 'intimacy of the common'.

On the other hand, Combes shifts the problem of the genesis of the 'technical object' to the reticular reality of the 'technical world'. This move implies a reorientation that gives priority to the third part of *METO* over the first and places the notion of technicity at the centre, rather than concretisation. Indeed, in the third part of *METO*, Simondon states that 'technical objects result from an objectification of technicity; they are produced by it, but technicity is not exhausted in the objects and is not fully contained in them', 'it precedes and surpasses them' (2017: 180).

Combes argues that the technical normativity to be taken into account is not an emerging from some kind of technical evolution, but from the reticular organisation of the technical world. The conditionings and incitements that this brings into play do not necessarily or primarily lead to coercion or manipulation; on the contrary, what Simondon would propose is 'to articulate the powers and forces of today's technical world in terms of what human beings, as beings of potential, can do' (Combes 2013: 70). But this would be possible, the author emphasises, not only by acquiring adequate knowledge of technical reality, but also by 'existential experimentation' within processes that have become 'inextricably human and machinic'. In other words, in order to transform humankind's relationship to technical reality, it is not enough to correct cultural representations and norms; social change is necessary. And this would have as its utopian horizon the destitution of the hylomorphic model of labour (alienating by essence) and the generalisation of 'technical activity', that is, the constitution – 'through the contemporary technical network' – of a transindividual relation between subjects. Simondon suggests these 'utopian considerations' in the conclusion of *METO*, in one of the few fragments that explicitly articulate the relationship between technicity, the technical object and transindividuality:

The technical object taken according to its essence, which is to say the technical object insofar as it has been invented, thought and willed, and taken up [*assume*] by a human subject, becomes the medium [*le support*] and symbol of this relationship, which we would like to name *transindividual* [. . .] An inter-human relation that is the model of transindividuality is thus created through the intermediary of the technical object. This can be understood as a relationship that does not relate individuals by means of their constituted individuality separating them from one another, nor by means of what is identical in every human subject, for instance the a priori forms of sensibility, but by means of this weight [*charge*] of pre-individual reality, this weight of nature that is preserved with the individual being, and which contains potentials and virtualities. (2017: 252–3)

Stiegler (2011: 99) concludes that the (mnemo)technical object is what retains and preserves human meanings, what enables the transmission of a legacy, and even what sustains the process of understanding by stabilising its flow. It would therefore be the 'support' of the transindividual relation and, moreover, as Barthélémy points out, 'the condition of the transindividual' (2010: 136). There is a kind of techno-Lamarckism here (inheritance of retained characters). Combes has a very different idea and articulates it in terms of pre-individual potential. In the same way that collective individuation integrates and structures these pre-individual potentialities into the unity of a group, so technical invention brings them together and deposits them in the object. The latter is not the product of an impersonal technical individuation, but of a human invention that draws on and transfers potentials. For Combes, there is a 'sedimented preindividual' in technical objects and they therefore enable the constitution of a transindividual relation in which subjects 'articulate their inventive and organising capacities with those of the inventor' (2013: 78). Thus, on the basis of the correspondence between (collective) individuation and (technical) invention, there would be an intimate connection between transindividuality and technicity, since, as Simondon suggests, the transindividual would point to the institution of 'a mental and practical universe of technicity [. . .] in which human beings communicate through what they invent' (2017: 252).

In the second decade of our century, we have found some positions that try to strike a balance between these two senses by broadening the spectrum of the Simondonian texts. While Simondon speaks about the transindividual only in his main work (*ILFI*), Xavier Guchet

(2010) and Andrea Bardin (2013; 2015) found some keys in other works such as ‘Form, Information and Potentials’ and ‘Complementary Note on the Consequences of the Notion of Individuation’. Guchet proposes to examine Simondon’s work from two ‘objectifications’: one ‘technological’, regulating the relation of the human being with the exterior world, and another ‘sociological’ or psychosocial (the ‘transindividual individuation’), regulating the relation of the human being with him- or herself. Both objectifications would be articulated in what Guchet proposes as ‘a technological humanism’.

According to Bardin, we must place the technical sense within the general sense of the transindividual without remaining attached to the hypothesis of the primacy of the technical objects (Stiegler and Barthélémy). For him, the intertwining of technical innovation, communitarian rationality and the social opening presented by Simondon in the ‘Complementary Note’ allows us to identify the movement of the transindividual, and makes it possible to think of it as the field of the political, admitting that the political scope of the transindividual in Simondon is conditioned by the absence of conflict as the fundamental axis of the socio-economic structure to which the transindividual should refer.

Having established this kind of balance between the technical and the political, our approach aims to highlight the need to integrate, as Simondon suggests, the analysis of technical networks with spiritual phenomena and the affective-emotional conditions of these associations. To do this, we propose to add other texts to the analysis: 1) the third part of *METO*, where Simondon distinguishes between ‘social-political thoughts’ and ‘techniques of human manipulation’ belonging to a sort of anthropogenesis or ‘temporal development’ of the transindividual; 2) the course ‘Psychosociology of Technicity’ (henceforth PT), in which Simondon places ‘technicity networks’ in close relation with affective-emotivity (*ILFI*) and ‘networks of sacrality’ (PT), expressing a coherence with the presence of spirituality at the core of the transindividual domain. This does not mean that Simondon denies the instrumental character of modern technique, but rather that it is possible to see in the technical fact a relationship with the geographical and human world in which both transcendence and immanence that affects social relations are verified (the metaphysical sense of the transindividual). With this in mind, we will propose a different way of approaching technicity in relation to the transindividual regarding not the process of concretisation of technical objects, but the nature of the technical ensembles and the technical networks as defined for Simondon himself in, for instance, *L’Invention dans les techniques* (henceforth *IT*).

## Transindividuation, Transindividual Individuation and Digital Technologies

We find in Stiegler (2010a; 2010b), at least since 2008, a recurrent appeal to the notion of ‘transindividuation’, a neologism with which he reinterprets the psychic-collective individuation of Simondon within the framework of what he calls the ‘process of grammatization’, the last stage of ‘digital tertiary retentions’. He argues that the appropriation of these technical trends by capital has redefined the Internet and, with Web 2.0, has given rise to social networks, a contemporary expression of the industrialisation of memory. Stiegler warns of the destructive and pathological character of these forms of digital reticularity, which generate ‘short-circuits in the transindividuation process’ and operate on the back of ‘the dictatorship of short-termism – exerted upon every society by marketing’. This digital reticularity will lead us to a ‘cognitive and affective proletarianization’ and to a ‘liquidation of social relations’ (Stiegler 2010b: 35, 30, 57). The attention disorders and deficits that affect the younger generations are examples of this process (Stiegler 2010a). So Stiegler proposes the invention and

development of ‘long circuits of transindividuation’ that would make it possible to sustain a long-term collective desire and, with it, an economy of care and a negentropic political culture. According to Stiegler, transindividuation should be understood as constructive processes that articulate psychic and collective individuations with pre-existing technical tendencies, establishing circuits and meanings in the transindividual. This type of process, therefore, ‘consists in the formation of circuits “knitted” by these [psychosocial] relations and whereby the process of co-individuation can be meta-stabilized’ (Stiegler 2008). And it is associated with a ‘general organology’ tending to think of the synergies between bodily, artificial and social organs (Stiegler 2010b: 34).

Taking up elements from the readings of Barthélémy (2005) and Chateau (2008), Mark Hansen (2012) has a completely different idea of ‘transindividuation’. For him, transindividuation is the product of the distribution of perception and cognition in computational agents (that is, the technical delegation of psychic individualisation). It emerges from a pre-individual smart environment and expresses a second-order collective individuation. Pivoting on the ‘psychic blindness’ of human subjects, made possible by the impossibility of apprehending the speed of computational micro-operations, this ‘collective reindividuation’ generates forms of ‘non-subjective subjectivity’ superimposed on the collective (first-order) individuation in which they participate affectively and reflexively. In this sense, differing from Stiegler, Hansen states:

If twenty-first-century media harbors an affinity with transindividuation, it is not simply because of its predominant social dimension [. . .] it is because today’s media are able to access – and routinely operate by accessing – dimensions of our experience, of our open and ongoing individuation, that lie beneath the personal or individual level [. . .] Rather than furnishing a recorded surrogate for that experience [. . .] twenty-first-century media exercises its force by influencing how experience occurs. (2012: 56)

As with Combes’s interpretation, Rouvroy and Berns (2013) underline the exteriority of the ‘transindividual individuation process’ with respect to digital technologies (which they encompass under the term ‘apparatuses of algorithmic governmentality’), and assert the existential, ethical and political value that mobilises this process as a symbolic elaboration of common experiences. For them, the pre-individual and the transindividual are irreducible to the process of digitisation and probabilistic calculation carried out by these apparatuses. The algorithmic governmentality is based on a-significant and infra-individual data that are algorithmically correlated in order to execute ‘supra-individual models of behaviours or profiles’ of a statistical nature (Rouvroy and Berns 2013: 11). They conclude that these digital apparatuses constitute a real threat to the psychosocial processes of individuation and produce a series of pernicious effects: they install a deceptive ‘regime of digital truth’ that erodes critical possibilities; they produce a ‘rarefaction of subjectification processes’ and tend to the generalisation of a ‘digital behaviourism’; and they promote depoliticisation with the illusion of objective governance and the (probabilistic) colonisation of possible futures, thus neutralising the deliberative elaboration of political alternatives.

In *Automatic Society*, Stiegler discusses this reading. He argues that it is futile to seek an outside of the digital: just as in the past, the commons and the law are founded and develop on the basis of pre-existing mnemonics or ‘tertiary retentions’. If technical trends, Stiegler stresses, always precede strategies, there is a general dynamic in which the technological shock ‘begins by destroying established circuits of transindividuation’ and then ‘gives rise to the generation of new circuits of transindividuation, which constitute new forms of knowledge



arising from the previous shock' (Stiegler 2016: 12). The challenge, therefore, is to deploy processes of transindividuation that articulate with digital technical trends and free the latter from their association with the economic system. In this sense, on the other hand, Stiegler shares with Rouvroy and Berns the concern regarding the destructive effects of algorithmic governmentality devices, although he reinterprets them as mechanisms of calculation that 'dividualise' the psychic and 'trans-dividualise' the collective, turning them into 'associated milieux' of a techno-economic system in process of concretisation. In this framework, and in contrast to Rouvroy and Berns, he states: 'There is no "process of transindividual individuation."' There are processes of collective individuation that produce the transindividual in the course of a process of transindividuation (which Simondon does not theorise as such)' (Stiegler 2016: 152).

Recovering Combes's reading, Simon Mills challenges Stiegler's appeal to a transcendent ought-to-be (seeing therein a return to 'the enlightenment subject as the cultural guide of technical development'), and asserts that 'Simondon demands an immanentism of the individuation of ethics along with that of technics' (2016: 170). In this sense, Mills bases his reading not on a philosophical anthropology, as Stiegler does, but on a generalised, realist ontogenesis that, through a dynamic between metastability and transduction, produces distinct operative units with different causal powers. Regarding 'transindividual individuation', Mills interprets it by articulating *ILFI* and *Imagination and Invention*: while in the former it appears 'as the concurrence of action and emotion', in the latter it is suggested that 'the act of invention provides objective supplements that can help initiate transindividual individuation' (2016: 94). The problem, then, arises between the technical mode of individuation (which would be non-human or post-human) and the psychosocial mode, whose relation is effected through 'social processes of cumulative [and recurrent] causation' strained by the pair invention–regulation.

Mills (2011; 2016) suggests that software and platforms allow us to think about processes of 'techno-social concretization' which, unlike industrial technologies, enable 'the co-individuation of a technical system with a psychosocial individuation' (2016: 197). In this sense, digital platforms would operate a compatibilisation and informational mediation between two or more orders of magnitude, and psychosocial interactions and affectivities would function as the operative 'associated milieu' of the 'invented technical individual'. We can already find this position in Stiegler and Andrew Feenberg (2017), but Mills argues against the former that it is less unidirectional than it seems, and against the latter that values cannot be imposed from outside on technical individuation, but must derive from its very immanence. Digital platforms, in short, structure transindividual individuation and, at the same time, are structured by it.

On the other hand, questioning models of 'social physics' based on big data, Mills (2015; 2016) affirms that the processes of transindividual individuation are animated by an energetic-affective potentiality that makes them irreducible to the probabilistic models of socio-cybernetics, which assume that the social is reduced to inter-individual relations in which (substantialised) individuals exchange information signals, and are thus unable to explain the social invention of the transindividual through the transductive structuring of meanings and emotions. Finally, regarding the link between digital technologies and transindividual individuation, Mills does not deny that platforms such as Facebook or X (Twitter) are overdetermined by capital and marketing, and that they also involve models of social physics, but – unlike Stiegler – he stresses that the transformation of these and other technologies cannot be (effectively) operated from a transcendent political instance, but from an immanent social dynamic. In this sense, similar to Combes, Mills is animated by the hope that technical values can be synergistically articulated with ethical and aesthetic values and enable 'a fresh transindividual individuation' (2016: 143).

## Technicity and Transindividuality Between Technical Ensembles and Networks

The analysis of the positions thus far reveals three distinct types of readings: 1) Computational technicity establishes a 'smart environment' within which processes of transindividuation occur without mediation by psychic subjects (Hansen 2012). 2) There is an antagonism between an extra-technical transindividual individuation and a digital-structural-algorithmic technicity that de-realises it (Rouvroy and Berns 2013; Mills 2015). 3) Technicity is limited to the concepts of concretisation and technical tendency, with symbolic and intra-technical transindividuation processes subsequently attached to it (Stiegler 2016) or techno-social co-individuation processes thematised (Mills 2016).

In order to find new meanings regarding the relationship between digital technical networks and transindividuality, we will provide a series of reflections on both. This will enable us to think about their association. Our hypothesis is threefold. First, we consider that the technicity of technical networks and assemblages opens up a reflexive space that is not circumscribed by the concept of concretisation. Furthermore, we suggest that the issue of the transindividual must be subjected to critical examination, incorporating analyses of religiosity, sacredness and sociopolitical movements. Both hypotheses draw on resources present primarily in PT, *IT* and the third part of *METO*. In conclusion, it is our view that the relationship between technical networks and transindividuality must be considered collectively, in terms of the interweaving of psychosocial groups and technical ensembles (which we will synthesise in the expression 'socio-technical ensembles'). This is particularly relevant in the context of digital technical networks.

Regarding the first hypothesis, it can be said that the emphasis on mechanology and the process of concretisation tends to enclose the relationship between technicity and transindividuality within the pair 'technical object-associated medium'. This leads, explicitly or implicitly, to an Ellulian (technical system) or Heideggerian (technical world) substantivism from which it is difficult to exit once one enters, because human activity ends up being the associated milieu of a hyperbolised technical individual, which is, precisely, that system. In this sense, the analysis diverges from a Simondonian perspective, which does not recognise the existence of a 'technical system', let alone a 'technical system in the process of concretization'. For our part, we propose that within the context of digital technical networks, it is essential to differentiate between various kinds of technical ensembles. Rather than attempting to subsume them all within an all-encompassing and self-transcending mega-machine (i.e. endowed with an immanent evolutionary dynamic), it is necessary to recognise the inherent diversity and complexity of these ensembles. This prompts the need to elucidate the scope and boundaries of mechanology, as well as to rethink the concept of technical ensembles.

In *METO*, Simondon makes a clear distinction between organology, mechanology and technology. The first examines the 'technical object at the level of the element', whereas the second investigates 'technical individuals'. Both organology and mechanology must be subsumed under the umbrella of technology (Simondon 2017: 66), which may be conceived as 'a second degree technics' concerned with developing 'the network of relational points between man and the world' (2017: 234). Consequently, technology is neither a mere 'study of technique' nor an alliance between science, technique and industry that evolves independently. Rather, it is a reflexive, technical and political activity that must organise the relation of human beings to the world. Consequently, mechanology must give rise to a technological practice in which the 'open machines taken together presuppose man as their permanent organizer, as the living interpreter of all machines among themselves' (2017: 17).



This brings us to a distinction that Simondon himself did not fully develop between technical ensembles and technical networks. Technical ensembles are constituted by the gathering of elements, human individuals and technical individuals (machines with a certain degree of indeterminacy), brought together by an operative activity. Simondon states that the term 'network' is 'far too imprecise and does not account for the particular regimes of causality and conditioning that exist in these networks' (2017: 228). However, he goes on to say that the network 'dominates and frames [*enserre*] the action of the individual, it even dominates each technical ensemble' (2017: 229). What is meant by the term 'technical networks'? In *METO*, Simondon provides the following examples: 'the interconnecting structures of electrical energy, telephones, railways, and roads' (2017: 228). If this characterisation is contrasted with technical ensembles (which Simondon exemplifies with workshops, shipyards, factories and laboratories), it becomes evident that two distinct levels of analysis are involved. The most logical conclusion is that different technical ensembles can be deployed on the same reticular infrastructure. Simondon does not always take this distinction into account and, at times, appears to use the two notions interchangeably. Nevertheless, it is evident that the term 'technical network' is employed with greater frequency in the writings that follow *METO*, particularly in *PT* and *IT*.

In *IT*, echoing developments in computing and telecommunications, Simondon describes technical networks as being composed of three positions: the operators, the terminal and the centres. The terminal 'is also an initial, a command point', and the network in general means 'the virtual presence of all the possibilities of the central organism in each of the terminals', so that in the dimension of networks 'the technical reality adheres again to the world, as in the initial point, prior to the advent of tools and instruments'. In this dimension, machines, which previously exhibited the isolation and autonomy characteristic of technicity, extend their influence to encompass 'both central and terminal positions' (Simondon 2005b: 99–101). The splitting of operators into both emitters and receivers of information led Simondon to argue that in contemporary information and communication networks, 'technicity is not concentrated; rather, it flows and is culturalised down to the use and care of the smallest technical objects' (2005b: 104).

Brazilian researcher Diego Viana offers a characterisation of *IT* that considers the 'technification of the world' brought by digital technologies. In this context, the distinction between this notion of technical network and that presented in *METO* is crucial. It is therefore necessary to speak of a 'synthesised network, which differs from the usual "networks of networks" such as the city for the oneness to which it tends. It is not only a case of coordinating networks, but of unifying them' (Viana 2015: 39). This tendency towards unification would manifest itself in the processes of digital convergence, which, representing 'the highest level of technical concretization', would erase the distinction between subject, world and technical mediation, unifying the utilisation, operation and invention of a single activity (Viana 2015: 36). This would result in the condition that, in the synthesised network, 'the political and the technical, the affective and the operational, the local and the global' become 'inseparable' (Viana 2015: 38). This analysis is of great interest, although we have some reservations about the dynamics of concretisation that would govern it. In *IT*, for example, Simondon restricts the meaning of concretisation to the progress of individualised technical objects, namely machines. This brings us to the problem of technical ensembles and the transindividual.

From a topological perspective, the transindividuality of human groups and the technicity of technical ensembles are situated on the same scale. In contrast to Simondon's three levels of technical reality (element, individual-associated milieu, technical ensemble), *ILFI* identifies three psychic-collective 'phases of being' (pre-individual, individual-medium pair,

transindividual collective). These triads present a dynamic and self-creative reality, but they do not operate separately. In reality, the third terms of each series (which are, in fact, the first) are intertwined, and it is this association that explains the generation and transmission of potencies, both on the level of technicity (elements, technical organs, etc.) and on the level of transindividuality (meanings, cult of the dead, etc.). Readings that deny this hybridisation (by subsuming the technical ensembles and the transindividual in a process of all-encompassing concretisation) are unable to consider the cultural and contingent aspects that shape socio-technical development. It is evident that Simondon ascribes a distinctiveness to technicity that eludes the purview of economic utility and sociological or market symbolism. Nevertheless, at a more profound anthropological and philosophical level, he situates this technicity 'within a directly human and culturally constituted reality' (Simondon 2014a: 39).

In Simondon's anthropogenetic account, the transindividuality of human groups and the technicity of technical ensembles are both derived from a common origin, and their association presents a reticular structure. This is not entirely clear in the third part of *METO*, where a pre-technical stage is suggested, but is clarified in *IT*, where Simondon posits the existence of a pre-instrumental and collective technical method in which 'the technicity resides in the diachrony and synchrony of the subsets of the operation' (2005b: 87). Following this initial stage, Simondon illustrates the 'great detour' of technicity by noting that it encounters two distinct phases. The first phase involves a liberation of technical elements, while the second represents a deeper emancipation of technical individuals. Ultimately, this leads to a total reticulation of the world (Duhem 2016: 233–237). In this final stage, a significant reversal takes place: technical networks surpass the scale of human groups and their internal cultural frameworks, establishing themselves as the infrastructure within which they exist and operate. This movement began with the initial industrial revolution and established a long-lasting mediation with respect to the 'natural world' (the interconnecting structures of electric power, telephones, railways, roads). However, it is with the technological development of the twentieth century (and in particular with information and communication networks) that the 'human world' becomes the object of technical transformation and, at the same time, the object of sociopolitical construction. Simondon develops in *PT* the meaning of this inversion between technicity and transindividuality:

In cultures such as that of the United States, highly technified, dominated by information and communication networks, sacredness becomes a private matter, subject to option, to individual choice, like membership of a society or a club [. . .] It seems to lack the breath and power of communication. Sacredness is no longer greater; what is greater is technique. (2014a: 116–17)

One might think that this refers to a kind of freedom of worship. However, the truth is that it implies a deeper shift, one that forces us to rethink the transindividual. Why is the transindividual associated with religiosity, sacredness and the social-political movements that follow them? First, as we have already indicated, the transindividual brings together the affective-emotive and the symbolic, underpinning the genesis of collective subjectivity and the necessary participation of psychic individuals in groups. In this context, Simondon (2020: 356) posits that the source of all religions is the transindividual. He further asserts that this force is socialised and institutionalised as a consequence. Simondon also denies the existence of 'religious truth in the theological sense of the term'. However, he asserts that there is an 'ethical dynamism' present in various religions that is similar to 'the positive aspects of modern humanism'. This ethical dynamism is characterised by a 'desire for perfection' and an openness that 'allows for the learning of the *transindividual*' (Simondon 2014b: 246). Secondly, as

psychic-collective individuation presupposes a distinction between groups of interiority and exteriority, (institutionalised) sacrality 'is eminently dualistic; in relation to it, one is either on the outside or on the inside'; 'the tendency to ecumenism within the category of the sacred is an unrealisable dream' (Simondon 2014a: 114–15). This is also applicable to secular sacralities, such as the 'great political movements of global scope', which 'are the functional analogue of religions' (Simondon 2017: 231) and which, like them, presuppose an affective-emotive and symbolic adherence.

The transindividual is therefore the genetic element of both religions and sociopolitical movements. However, in its evolution, it faces a significant challenge: the 'interiorist or communal deviation' (Simondon 2020: 315), the formation of sects, the solidification of group mythologies, and the retreat into exclusionary eticities. As Bardin (2015) has demonstrated, Simondon draws on Bergson's analysis of the open and the closed, and emphasises the ethical significance of the transindividual. While these relapses result in a loss of the latter and the establishment of a 'closed society', the true meaning of the transindividual refers to a psychosocial dynamic of articulation and openness. 'A group that cannot be recreated by incorporating new members dissolves as an interiority group' (Simondon 2020: 334). In this sense, in the 'Complementary Note', Simondon states that 'a society is community in expansion, whereas a community is a society that has become static' (2020: 408). As examples of this 'transindividual ethics', Simondon mentions Christian solidarity (which seeks to incorporate all human beings into the same in-group) and the case of St Francis of Assisi (which also includes living beings). We might also consider the position of Simondon, who aspires to incorporate technical beings.

These considerations do not, however, lead to an abstract universalist ethics. Instead, they indicate an ineliminable dynamic tension between the closed and the open, the community and society, and the inter-individual and the transindividual. Furthermore, they offer an axiological criterion to found moral conscience and prevent it from becoming 'the purely social symbol of a closed group' (Simondon 2014b: 246). On this basis, it is now possible to return to the problem of the relationship between technical networks of information and communication, technical ensembles and psychosocial groups. In contrast to Simondon's approach, it can be observed that in today's highly technified cultures, affective-emotivity is not insularised and does not become intra-individual, but rather proliferates and flows as never before in the social body. It is evident that the prevailing techno-emotional forms, which are dominant on the sociopolitical level, substantiate the concerns raised by Simondon. These forms are manifested in closed and exclusive socio-technical ensembles that perpetuate the most detrimental aspects of institutionalised sacredness. Simondon's critique of the 'techniques of human manipulation [*techniques du maniement humain*]' and sociopolitical mythologies provides a compelling illustration of the dynamics of such ensembles.

According to Simondon, techniques of human manipulation operate by analysis and 'grasp human beings from below the level of unity'. These techniques of 'elementary plurality' give rise to 'empirical procedures' that attempt to capture 'a true unity in the generality of groups, of the crowd, and of public opinion', but in fact they apply 'elementary thought to general realities'. In this sense, 'they are only an additional variable within industrial techniques (scientific management)', operating as 'means of advertising' and 'retail organizations' (Simondon 2017: 224–33). Conversely, when articulated with sociopolitical mythologies, they form socio-technical ensembles that replicate archaic forms of identification-participation, incite a Manichean structuring (the pure/the impure) and feed a religious logic of 'self-maintenance', that is, they 'recruit forces and energetic [affective-emotive] resources in the human world of motivations and faith [. . .] Each type of sacredness has a specific public from which it extracts

[affective] energy and to which it offers a vision of the world, a rule of life, and a structure of action' (Simondon 2014a: 113–14)

Do these socio-technical assemblages express the technicity of technical networks? Not for Simondon: 'The alliance of an ensemble of procedures and of a mythology is not the encounter of technicity and of respect with regard to totality' (2017: 233). In this framework, a number of closely related normative concepts become relevant. First of all, 'sociopolitical thought', which, far from any closed mythology and in the face of the techniques of human manipulation, must prevent socio-technical ensembles from becoming monstrous and hypertelic and, on the basis of existing technical networks, must offer a project for the future that takes the totality (not this or that faction) as its reference point: 'Technical intuition, at the level of ensembles, expresses coming-into-being as both basis and result obtained; social and political intuition is the integration of tendencies, the expression of virtualities and forces of coming-into-being, in the same reality' (Simondon 2017: 237).<sup>3</sup> Although this concept presupposes an ethical dimension, its macro-political character is undeniable; it is a matter of political and social thinking, not micro-political.

Secondly, this prospective project implies the development of a 'reflexive technology' which, while including organology and mechanology, goes beyond them in that it must provide organisational coordinates for the synergistic articulation of technical networks, the human world and the natural world. At this point, the critical and normative task of culture, philosophy and the human sciences becomes central, which are, according to Simondon, intermediaries between social-political thought and the techniques of human manipulation. The axiological criteria that Simondon offers, and which would underpin this synergy, are to combat human alienation and the destruction of nature, to avoid 'monstrosity' (the functional mutilation of beings) and to promote 'constructivity' (the articulation of quantitative and qualitative aspects in order to achieve cumulative and organised progress).

Finally, the relationship between technicity and transindividuality is addressed. As previously discussed, there are negative forms of this relationship, which result in the de-realisation and perversion of it. One prominent example is the association between techniques of human manipulation and political mythologies. Against this characteristic 'closed society' dynamic, Simondon posits that techniques are a factor of openness and transformation. While they entail dangers, they also express 'the strongest opportunity to evolve and the most concrete opportunity ever given to humanity' (Simondon 2014c: 321). It is evident that the 'major technical gesture' mobilised by digital technologies, and their successive technophanies (from the internet to AI), present an opportunity for evolution. In this sense, we are not far from the 'ethical dynamism' of the transindividual. However, the socio-technical and economic ensembles that currently effect them, and which have become dominant, do not seem to amplify this dynamism, but rather the opposite (Duhem 2016: 227).

This leads us to a more specific issue: what does it mean, in a positive sense, that through 'the technical object an interhuman relation is then created which is the model of transindividuality' (Simondon 2017: 253)? Simondon may have been thinking here of the meetings of scientists and researchers from different nations who, freed from chauvinistic and militaristic sentiments, articulated their inventive powers devoid of all closed-mindedness and prejudice.

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<sup>3</sup> The task that Simondon assigns in *METO* to political and social thought is diametrically opposed to the attitude that he attributes to sacredness in *PT*. In the latter, 'with its sense of the unique, is generally turned towards the past', sacredness 'projects a history of the world that is the history of a degradation, of a loss of meaning' (Simondon 2014a: 120).

The Macy conferences would be a suitable example. If we assume this interpretation, we can pose the question of whether it is possible and/or desirable for a 'technical object' to facilitate such an encounter between technicity and respect for the totality. In the context of the current reticular conditions, how can we conceptualise socio-technical ensembles that encourage openness, invention and constructiveness? This question may not lead to the identification of a referent, but rather to the development of an evaluation criterion between the celebration and the constraint of technology. This is particularly pertinent in the context of technical networks that adhere to the world. In *IT*, Simondon highlights that the original reticular and ritual structures, which correspond to a pre-instrumental stage of technique, involved a 'very accentuated hierarchical structure' and gave rise to 'the first true slavery' in the human world (2005b: 87–8). Will the socio-technical and economic assemblages that dominate today's reticular structures lead to the same dialectical destiny?

## By Way of Conclusion

We have attempted to present a theoretical framework that could be used to address the interpretations that employ the notion of the transindividual as a key for analysing the relationship between data, algorithms and platforms in digital networks and its consequences for collective individuations. We began by considering the various meanings of the transindividual as defined by Simondon: a metaphysical sense, where the transindividual is both that which transcends the individual and an extension of it; an instance traversed by sacredness and spirituality; a sense of meaning that predates the advent of language; an ethical sense; and a technological sense.

We then identified a tension between a technological pole of the transindividual and a political pole based on the metaphysical sense across these different senses. This tension was present in the seminal works of Bernard Stiegler and Muriel Combes two decades ago and was balanced in Andrea Bardin's position regarding the possibility of a movement within this tension between technical innovation, communitarian rationality and the social opening. This movement highlights the need for a sociopolitical perspective that extends beyond Simondon's thought, also associated with the ethical sense of the transindividual. These two poles also informed recent interpretations about the transindividual in digital networks. We found three distinct readings: 1) the process of transindividuation occurs without mediation by psychic subjects in so-called 'smart environments' (Hansen 2012); 2) there is an opposition between an extra-technical transindividual individuation and an algorithmic technicity that de-realises it (Rouvroy and Berns 2013; Mills 2015); and 3) the technicity of digital networks is limited to the process of concretisation, which tends to structure the symbolic aspects of transindividuation (Stiegler).

In the light of the theoretical resources present primarily in *PT*, *IT* and the third part of *METO*, we propose to rethink the relationship between these two poles. First, we retrieve the notions of 'technical networks' and '(socio)technical ensembles' coined by Simondon and rethink their affinities and differences. He describes technical networks as comprising three positions: the operators, the terminal and the centres. Referring to developments in computing and telecommunications, Simondon argues that in the dimension of networks, technical reality adheres to the world as it was 'in the beginning, before the advent of tools and instruments'. He also highlights the fluid relationship between the technicity of contemporary technical networks and cultural factors. This offers an alternative to a vision based exclusively on concretisation and reframes the issue of the transindividual between the technical networks and the (socio)technical ensembles.

Second, we argue that, in line with Simondon's anthropogenetic account, the technical ensembles must be related to religiosity, sacredness and sociopolitical movements in order to integrate them on another level, combining the political and the technical views about the transindividual. The link between the two perspectives is the ethical sense of the transindividual, which needs to be addressed as the affective-emotivity seems to be caught between political mythologies and technical mechanisms. In this sense, Simondon points out that techniques are a factor of openness and transformation, representing an opportunity for evolution, but the actual socio-technical and economic ensembles do not reflect this dynamic. It is therefore essential to study these socio-technical ensembles through a reflexive technology that goes beyond organology and mechanology. This will allow us to identify a new criterion between the celebration and the constraint of technology.

Third, the inter-functionality of the technical network, as an infrastructure where all kinds of political, economic, social and cultural interactions take place (even the socio-technical ensembles, as Simondon notes), reveals the fabric of the transindividual in the contemporary world. In order to account for this, however, it is necessary to relate transindividuality to the technicity of technical ensembles and, fundamentally, to understand that constructive or destructive, open or closed, individuating or disindividuating socio-technical processes can arise between them. In this sense, affectivity and emotionality are also constituted by this link, as are collective meanings and actions. It is therefore impossible to separate the technological meaning of the transindividual from the rest of the meanings that Simondon gives to the term, especially its ethical and sociopolitical meanings.

If, as Hansen suggests, digital or informational networks are technical networks that, unlike other networks throughout history, distribute perception and cognition in computational agents, thereby effecting a technical delegation of psychic individuation, a research into the following questions may prove fruitful: 1) the ways in which new psychic-collective layers of individuation are structured in different kinds of (socio)technical ensembles, including the tensions raised by Simondon between sociopolitical ideologies and techniques of human manipulation; 2) the ways in which the affective-emotional dimensions of these psychic-collective individuations are reconfigured in relation with normatively oriented constructions; and 3) the ways in which these reorganisations are linked at the sociopolitical level, on the assumption, shared by Stiegler and Simondon himself, that digital technical networks in general and (socio)technical ensembles in particular are strongly conditioned by capital. Furthermore, they are currently in solidarity with very dangerous political tendencies at the global level.

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Edited by Andrea Bardin, Marco Ferrari,  
Anaïs Nony and Gregorio Tenti

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