

Special Section: Bernard Stiegler and the Internation Project: Computational Practices and Circumscribed Futures



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#### **Abstract**

This article serves as the introduction to the Annual Review special section entitled 'Bernard Stiegler and the Internation Project: Computational Practices and Circumscribed Futures'. As such, it introduces the collective undertaking of the Internation Project in relation to Stiegler's long career as a thinker, educator and community organizer. The introduction pursues a number of themes addressed in the section's contributions, including pharmacological logic, transindividuation, computational practices, bifurcation and negentropy (means of slowing entropic processes at individual and collective levels). All of these themes pertain to the climate crises the world collectively faces and posit means by which futures can be conceived in less detrimental and destructive economic, social, technological and intellectual ways. The Internation Collective as represented and furthered in this special section responds to the demands of climate crises through a macroeconomic model designed to combat entropy at various scales, from the biochemical to the biosphere.

### Keywords

care, computational practices, Internation Project, knowledge, pharmacological logic, Bernard Stiegler, transindividuation

# With Stiegler: Introductory Notes on the Internation Project

Do I love the world so well / that I have to know how it ends? (W.H. Auden, The Age of Anxiety)

The introduction to this special section is written with Bernard Stielger. The 'with' in this case has a double valence: 'in dialogue with' Stiegler and, additionally, being 'with' him and his thoughts in terms of aligning oneself to them.<sup>1</sup> At the same time, though, it is

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unavoidably a dialogue without Stiegler, one conducted *in abstentia* and not the collaboration we had planned.<sup>2</sup> This introduction operates in the rhetorical mode of an apostrophe: an address to one who is absent. Bernard's death in August 2020 left this intended collaborative publication project adrift in suspended ellipses with multiple possible directions unexplored. Nevertheless, this special section endeavours to manifest elements of our plans and to further some of the many crucial imperatives his late thought offers, most explicitly as embodied in the Internation Project.

The Internation Collective and its project grew out of Stiegler's writings, education projects and institutional collaborations, with the stated desire not to be a 'Stiegler project' but rather a collective effort for which he played an important catalyst. The Internation Collective speaks directly to the United Nations initiative to redress the growing gaps between the goals of the Paris Agreement and actual greenhouse gas emission reductions, gaps resulting from a lack of political and collective will and increasing apathy toward or distrust of large-scale solutions – as was painfully displayed during the COP26 in Glasgow in 2021. The Internation Collective and its larger project initiated a multi-scaled and complexly developed set of related strategies and technics to address climate catastrophe, which is the almost inevitable imperative of the present. Comprised of scientists, mathematicians, philosophers, artists, business leaders, designers, activists and doctors, the Internation Collective responds to the demands of climate crises through a macroeconomic model designed to combat entropy at various scales, from the biochemical to the biosphere.

The Internation lays out the paradoxical demand for the demystification of political and economic regimes and the re-enchantment of the world to critically respond to current seemingly intractable crises while generating hope for alternative futures. The recent volume Bifurquer (2020, and its English version Bifurcate in 2021) is an important statement for and iteration of the Internation Project, both as a marker of where it was at the time of writing and as a gesture to directions of where it could potentially lead, which is a starting point for this special section. The concept of bifurcation refers to those means by which entropic forces, economies, institutions and technologies can be rendered negentropic by deviating from their calculated teleologies, teleologies that in the present seem synonymous with eschatology. Each of these entities and processes pharmacologically possess cures and poisons, with the determination of which attributes foment extractive destruction and which further potentialities to stave off the same. Bifurcation as it pertains to the Internation offers strategies to alter 'the toxic effects' of 'systemic mutation' that we refer to as climate change (Stiegler, 2015: 3). 'The chaotic disorganization' called the Anthropocene is one result of the exponential increase of entropic processes and forces. The situation constitutes a planetary chronotopic condition characterized by 'planetarized computational capitalism' and it 'proposes a set of initiatives to initiate a bifurcation towards new economic and technological models' for a different kind of future (Alombert, this section).

The result would be a new or different kind of wealth, in which 'wealth' would not be 'just a matter of monetary accumulation, but rather as the cultivation of richer and richer forms of local knowledge, which alone will allow the kinds of common protentions that constitute the horizon of what we could imagine in terms of a sustainable future' (Bishop and Ross, 2021: 127). *Bifurquer* addresses the means by which entropic forces (physical,

biological, psychosocial, economic) might be slowed or reversed. The entropy generated by and resultant from human actions falls under the portmanteau term 'anthropy' and becomes the central focus for the theorization and arguments offered in the Collective's book. As such, the volume gestures toward the generation of hope and care, which serve as both desired goals and strategies of the project: to convert thought (*penser*) into thinking care-fully (*panser*), with Stiegler using some lexical sleight-of-hand to combine care and thought into another portmanteau. This reconfiguration of *penser* into *panser* appeared with greater frequency in his later writings (Bishop and Ross, 2021: 120–1) and signals a critical concern carried into the Internation Project.

Further, Stiegler's late writings develop his anti-analogic modelling for technology and cognition that considers the co-evolution of biological organisms and artificial organs. In other words, he concentrated on the co-evolution of sensory, cognitive and psychological functions and artefactual supports – the mutually influential and interdependent relationship between techne/technics and imaginaries that help perpetuate noodiversity. Such a position stands in opposition to the primary role of calculation as used in economics by means that influence behaviour through the generation and circulation of 'averages' as key indicators of performance and predetermined directions of action. Such calculation inarguably extracts wealth, as it is designed to do, but in so doing limits futural possibilities for individuals and communities and circumscribes their capacity for care in relation to others, themselves and any potential collective futures.

The *Bifurquer* volume constitutes a weighty and important statement by the Collective in response to climate crises, and this special section intends to be a next step in pursuing portions of that project, allowing members of the Collective to further develop their ideas and the ramifications of them and to provide others outside the collective to respond critically to the same. The issue does not traverse all of the *topoi* of the *Bifurquer* publication but takes up a good many of them. Primarily the papers in this section address the unavoidably pharmacological effects of systems and technologies, computation and economics, the import of institutions and localities as necessary sites for the perpetuation and development of collective protentions, economics and labour, the role of computer science in the circumscription and generation of labour/technological/noetic potentialities, and the centrality of transindividuation in the critical consideration of the ontological status of thought and its ability to facilitate becoming and negating entropy.

## Thinking, Transindividuation, Locality

I write this as a student [élève] of [Jacques] Derrida: he raised me, as does any philosopher, so another might come. A philosopher is one who raises [éleveur, breeder] . . . Between these alwayses, alreadies, stills and not yets is woven the exigency, at once intragenerational, intergenerational and transgenerational, of faith, without which there can be no alētheia, or dikē, or noesis. (Stiegler, 2018: 258)

In the midst of all these complexities, scales, entanglements and unintended consequences of human technological existence and all that it has wrought, Stiegler (2017a) returns time and again to a persistent question: what is thinking in the age of the Anthropocene? In the excessive pile up of tertiary protentions that insert the *anthropos* into the constitution of

the Anthropocene, what are the conditions under which thinking is possible (pp. 386–9)? Like the massive car wreck in Jean-Luc Godard's *Le weekend*, the world has ground to a technological suspended state of immense acceleration (pace Paul Virilio). Stiegler invokes Martin Heidegger's *What Is Called Thinking?* and reconfigures it as *What Is Called Thinking Carefully?* (*Qu'appelle-t-on panser?*). For if, in Heidegger's terms, the human is that which is accorded the privilege of asking questions, then for the human to escape its own neganthropic tendencies, for Stiegler (2018), the string of questions needs to address the pressing pharmacological demands of thinking to arrive at care (that is, living) (p. 259).

Thinking care-fully in such complexities of scales of destruction and immobilization necessitates, as the epigraph above indicates, a moment of faith across different temporalities that philosophy demands (if it demands anything). If philosophy generates care, it is through a sense of faith, or hope, in a futural moment that cannot be understood as simply the 'yet-to-come' but must be cast in a pharmacological reversal of neganthropic processes that often result in unthinkable solutions to the question of how thinking can be possible in such conditions. The very processes that have created our collective existential condition (the impossible heap of tertiary protentions) must become the means by which we can care-fully think. In much the same manner of reversal, the very planetary computational system (Paul Edwards' 'vast machine') that furthers climate crises also renders these crises visible to us: without its global monitoring, sorting and calculating that foreclose so many possibilities, we would be unaware of the precarity that marks this moment. Pharmacological logic necessitates these movements of thought, for as Heidegger's favourite poet, Friedrich Hölderlin, writes, 'Where there is danger, there is rescue too'. These protentions, then, are hope and hopelessness pharmacologically bound 'in a sublime tension' that means 'to try to live' is 'to think [penser] in order to care [panser]' (2017: 389). The traumas of our unavoidably technological lives found in the technosphere-as-Anthropocene also 'leaves traces that will be reactivated inasmuch as they constitute neganthropic potential' (2018: 258), and in those traces perhaps hope and a future that resists or negates technical time might be found. The ever-available neganthropic desiderata of anthropic technics potentially provide a slip from the horological noose of the Anthropocene, which presents us with the end of human endings.

The neganthropic possibilities of protentions operate as strategies for anticipating what is yet to come and how to engage future conditions without succumbing to entropic forces. Removing Edmund Husserl's concept of protentions from any reinforcement of a staid internal time or the uniformity of the time axis as collective experience, Stiegler considers transindividuation as the means by which future entropies, or foreclosures of protentions, can be slowed (or made negentropic). Transindividuation fundamentally concerns what a 'we' can do in the face of indeterminacy. As such, transindividuation, with Stiegler following Gilbert Simondon here, constitutes both a psychic and collective being that we are ever in the process of becoming and inseparable from multiple associations and contexts. Transindividuation is also how the local begins to enter into the mix of the global rendered as planet and biosphere. Therein reside a number of pharmacological reversals accelerating and perpetuating the various crises found in the many combined human-generated threats facing the existence of nearly every species on the earth in the first quarter of the 21st century.

To facilitate protentions that encourage transindividuation and redress those that delimit possible horizons, the Internation Project focuses on potentialities and creative knowledge found in locales and localities. As the Collective writes in *Bifurquer*:

It should be recalled, here, that locality is not simply a spatial concept. It does not just designate a delimited territory, on whatever scale. The various levels of locality constitute in the nation-locality a fractal diaspora — where the nation-state is the sovereign exorganism within which sub-national localities materially and symbolically exchange, where these sub-national localities may very well co-belong to other sovereign exorganisms. Here, the sub-national refers to the micro-level, with nation-states constituting the macro-level as the local articulation (at the national level of locality) of the meso-levels, with the internation constituting the meta-level of locality. (Stiegler et al., 2020: 191–2, author's translation)

Locality, within the project's formulation, is a non-spatial (or not necessarily spatial) iteration of conveyances of living flows and unformulated capacity, of contributory material and immaterial possibilities, and thus stands as an alternative to the foreclosing and extractive dimensions of computing technologies operating as 'algorithmic governmentality' and 'data economy' that streamline and delimit global economies. Locality further articulates the necessity, as Immanuel Kant put it, to position or orient oneself in thinking.

Locale and locality, according to this capacious framing, is one of ever-expanding material and noetic volumes, and thus scale, up to the very biosphere that sustains life on the planet. Inasmuch as the project addresses the interlocking and inextricable interconnection of these scales, any slice of the scaling process implies the others. But as the scales of locality slide up and down a vertical axis of volumetrics and incorporation, there is no synthesis of localities, no summing up or collation; every point that we can identify for pragmatic purposes as a start of or an end is always already moving on (as with retentions and protentions).

These shifting grounds of scaling locales and localities have profound effects for the possibilities of transindividuation, for fostering futures (yet-to-come) in ways beneficial or deleterious to individuals and collectives. This ineluctable triumph of processes over static entities – of the verb of existence over its noun-like qualities – constitutes the necessity of temporality for thinking. As Stiegler asserts about himself in The Neganthropocene: 'I think only insofar as there is, in my thinking, a place for what, in that which must still be thought, can and must give space for the unthinkable, that is, for becoming' (2018: 38, emphasis in original). Far from being a reconstitution of the Cartesian *cogito*, which ends in the copula, Stiegler's thinking elevates the import of thought's evanescence and what must pass in order for thought to proceed: the relation of retention (memory) and protention (expectation) within a sequence of thought. In the latter resides 'what must still be thought' and is yet 'unthinkable'. This elevation of becoming bifurcates the linear projects of singularities, calculation, prediction and delimitations found in current macroeconomic processes of algorithmic governmentality and other entropic computational practices. Such thinking replaces the copula of being with the modal of potential becomings, not the way things are but how they could be otherwise.

# Computational Practices: In Pursuit of the Better Angels of our Digital Technologies

Threatened in totality as it is by the Anthropocene, wealth takes on a new meaning: we can no longer use 'wealth' to refer to anything except what will allow us to overcome the strictly eschatological limits of contemporary economic development. (Stiegler, 2017b: 3, emphasis in original)

Pharmacological computation preoccupied Stiegler for several decades and played a central role in some of his last articles as he attempted to find the better angels of our digital technologies by calling for 'a new theoretical computer science' (théorique informatique) (Stiegler, this section). In his introduction to Stiegler's contribution to this section ('Megamachines, Forms of Reticulation and the Limits of Calculability: Elements of a New Economic Foundation Based on a New Foundation for Theoretical Computer Science, Part Two'), Dan Ross situates this call in terms central to the Internation Project and Stiegler's thought throughout his career: the simultaneous emancipatory and debilitating potentialities of all forms of 'grammatization'; that is, the means by which temporal processes can be spatialized and stored in discrete, repeatable forms. This marks essentially the difference between analogue and digital processes, the roots of which reach back to antiquity and are found there in the technologies of numbers, grammar and literacy.

Here Stiegler draws not only on the primacy of André Leroi-Gourhan (for much of his thought on memory and technics), but also connects to orality-literacy scholars (e.g. Walter Ong, Eric Havelock, Jack Goody and others) while echoing the work of his media theory contemporaries, including Friedrich Kittler and Wolfgang Ernst. But he differs from these thinkers in multiple ways, one of these being his reconsideration of Heidegger's notion of Gestell (enframing), which Stiegler claims is useful for thinking the Anthropocene if the concept also takes into account the necessity of exosomatization perpetuated by entropy and negentropy. Such considerations can facilitate the type of thinking and care (panser) required to prevent the conversion of technology's perils into the event that determines the unavoidable future of Gestell. Formulated in the decades of intensified use of specific calculable elements of cybernetic thought and technology, Heidegger's Gestell anticipates how those specific uses and applications delimit economic choice and contribute to a 'megamachine' of singularities. The economic and environmental tolls wrought by such a narrowing of horizons poison the possibilities for futural collective epochs of hope, telescoping thought and diversity while accelerating entropic forces exponentially. Stiegler's call to rethink theoretical computer science does not simply repeat the necessity for action, as Ross points out in his introduction to the piece, but provides the initial intersecting strands for a 'technodiversity' that can foster a 'noodiversity' predicated on 'knowledge, diversity and care' (Ross, this section). The results of such developments, according to Stiegler, could be 'a specific modality of contributory research' found, following Joseph Beuys, in 'social-self-sculpture' (Stiegler, this section) that are outlined in *Bifurguer*.

A pursuit of this kind and its attendant pitfalls are taken up by Anne Alombert's contribution to the section when she pursues Stiegler's call for rethinking computer science

theory as it pertains to a contributory design of digital technologies. Through emphasizing the co-evolution of living organisms (individuals), artificial organs (tools), and social organizations (institutions) under Stiegler's general organological frame, Alombert argues an alternative to the human-machine intelligence divide can be gleaned. This entails an examination of the ways in which material and technological changes affect and reform noetic potentialities of human experience, not for the calculative and predictive ends of current 'smart' technology logics but instead with an eye turned toward the affordances underutilized or untapped in current digital design. To convert these into 'technologies of the spirit' offers processes of transindividuation elided in most market nexuses of computation, calculation, data extracting economic markets, the environment and human positioning within them.

Alombert productively traces the sustained pharmacological logic of Stiegler's thought. This grounding logic extends in this special section to market formations and the gift (Ross), institutions (Kryzkawski), and computational, animal and disciplinary intelligences (Angelini and Longo). Such a pharmacological logic exists in Stiegler's work from the outset and appears forcefully in his later formulation of a 'general organology', in which human life is not just biological but also necessarily and always technical (organized inorganic matter). This perspective affects simultaneously 'the intellectual and artistic world, the economic and industrial world, and the (geo)political world' (Stiegler, 2020b: 73). General organology conceives the evolution of technical life as 'indissolubly psycho-techno-logical' as well as 'relatively bio-logical' (p. 73). Following Alfred J. Lotka's thought on exosomatization, Stiegler considers artificiality as natural for human beings, and it manifests as exosomatic organs necessary for human existence – those technological supplements to nature that humans require.

The most pressing of these in the current moment can be found in the technologies of digital calculation: exosomatic organs as necessity but also potentially self-destruction. The conversion of the biosphere into a technosphere that threatens to become a necrosphere characterizes a key aspect of our current collective existential condition. As such, according to Stiegler's formulation, general organology becomes the method for posing all ecological questions. The challenge, then, is to conceive the question of digital writing and calculative governance from the pharmacological perspective inherited from Plato (through Derrida to Stiegler). One stated aim of a general organology is to establish an academic theory and practice of digital studies (77) that will reflect a new theory and practice of forecasting devoted to investment and not speculation, to contribution and not extraction. From the point-of-view of digital studies, the hyper-critical context of digital technologies means the primary subject of a general organology is tertiary retention, primarily hypnomnesic tertiary retention that is ineluctably pharmacological and therefore has an irreducible bearing of noetic locality on today's exosomatic situation. 'Retrospection, inspection and prospection are operations made possible by, and in turn making possible, retentions, attentions and protentions' (2020b: 77).

Following the issues articulated around a general organology, Ross takes up a task, articulated by Stiegler, 'to refound' the theoretical science of computation. This task does not entail interventions into functionality alone but rather a reconsideration and reconstitution of the entire position of computation in the contemporary moment, including how it has become a self-generating process of market formation predicated

on information that computation produces for the production and extraction of wealth. In a move to shift the foundation of the theoretical science of computation away from entropic economics that blunt transindividuation, Ross pursues the fate of 'the fact of exchange' as a requirement for exosomatic life (read human existence). The fate of this fact of exchange in the history of the concomitant rise of neoliberal economic thought and computational science, especially in the foundational moment for both in the 1940s, leads Ross to explore 'the pharmacology of the gift' from Claude Levi-Strauss to Georges Bataille and Marcel Mauss, and he does so through Stiegler's reading of Maurice Godelier's critique of Levi-Strauss. From this reading, Ross argues, the pharmacology of the gift provides the potential for a negentropic economy and the revaluation of value. The market of information that the current computational science inherited from the 1940s, however, has replaced the pharmacology of the gift predicated on the fact of exchange. This replacement results in the closing of open-ended, dynamic systems promised by computational technics.

Similar to Ross's pursuit of Stiegler's challenge to refound the theoretical science of computation, Michał Krzykawski (this section) takes up a complementary thread of Stiegler's larger project to curtail entropy through a reorientation of institutions as necessary exosomatic organs for the possibility of human (or 'non-inhuman') futures. Also returning to some foundational elements of neoliberal thought that so circumscribe and encumber current existence in large parts of the world, Krzykawski offers a new interpretation of Friedrich Hayek's 'isonomy' as a means to imagine 'neganthropic institutions' as a means to secure a collective future currently unattainable. In line with the Internation's agenda for seeking agreement on some fundamentals of how best to think and engage post-capitalist opportunities and perils, the article argues for a rehabilitation of those institutions founded for the common weal but reconstituted by and for the benefit of neoliberal market agendas due to their perceived impediments in the frictionless operation of the market of information. It is just this position as impediment to these forces that presents us with an opportunity. By intentionally returning to institutions this obstructive role within extractive market logics and articulating local knowledges within the internation of exchange, negentropy can result. Rather than servicing the global flow of capital on the backs of local institutions and at the cost to local communities, such a move provides productive friction to this flow.

This proposition redefines institutions as any human organization committed to remaking the neoliberal extractive and entropic economic model (hence, 'the neganthropic institution'). The neoliberal formulation of institutions that rendered them ruinous to transindividuation finds its pharmacological correlate in the neganthropic capacities offered by critical reassessment of institutional abilities to make the entropy wrought by neoliberal economic models and practices a central problem for those institutions to address: institutions as poison converted to ones of cure. Arguing that Hayek, as a key theorist of both neoliberal economics and institutions, has elided the import of entropy in his understanding of biological evolution in relation to these systems and institutions, Krzykawski suggests that the insertion of entropy as a central effect produced by neoliberal institutional formations might become a means for reconfiguring them and stemming the entropic acceleration in the Anthropocene through the foundational reorienting of institutions in their capacities as exosomatic entities.

Exosomatic processes of cognitive activities for humans provide the focus for the witty, provocative and challenging conversation between Giuseppe Longo and Andrea Angelini (this section), thinkers rooted in mathematics, neuroscience, and the history and philosophy of science who have long been interlocutors of Stiegler's. Taking the most recent addition to the list of technics that so constitutes the history of the human species - AI - as the springboard for their wide-ranging discussion across artificial, animal and scientific intelligences, they unfold some of the limits of AI and Big Data. Of primary concern is the self-proclamation by AI and Big Data as objective replacements for other modes of knowledge formation. Working again with the pharmacological logics of all organalogical organizations, they reintroduce the dynamics (both constructive and destructive) of entropy, negentropy and anti-entropy as the necessary ground for physical, biological and societal organizations, thus placing AI within the ideology of technoscientific governance. Longo and Angelini work carefully through entropy and its fraught, unsettled position within physics as it pertains to Stiegler's appropriation of this complex concept. Taking his cue from Erwin Schrödinger's initial reframing of entropy, Stiegler applies it to a range of phenomena, such as organizational formations, socioeconomic issues, and environmental effects of humans. Longo and Angelini's considered discussion furthers Stiegler's arguments within contexts and disciplines that infrequently enter these discussions in philosophy, anthropology, and technology studies.

Further, Longo and Angelini remind us that scientific thinking and research are not immune to the foreclosure of noodiversity operative in other parts of the data economy. As with those other detrimental impacts on transindividuation, the current and calculative impulses in scientific intelligence similarly lead toward consolidations of consensus in terms of funding and benchmarks of success. Innovation and advances of scientific thought, they argue, are by structural necessity always minority positions (or bifurcations). The affordances of computational technologies that allow us to collaborate with colleagues without many of the usual physical constraints and to access vast amounts of materials and databases also simultaneously (and pharmacologically) create normative thought that inhibits strategic differentiation of analytic processes through over-reliance on citation indices and standardized benchmarks of 'excellence' reinforced through funding bodies and uniform university measures of 'success'. The metrics become echo chambers of projection and pre-determined outcomes almost impervious to the diversity of knowledge and thought (noodiversity) required for innovation and the bifurcation essential for species survival.

The pharmacological logics explored through computational practices enmeshed in, driving and also justifying macroeconomic systems as explored in Stiegler's vast body of inquiry and the articles in this special section, summarized above, have resulted in the constitution of a present seemingly with limited futures (or possibly even none at all) beyond those of prediction, calculation and data-driven economics and governance. The end of labour as a negentropic activity (or as rewarding to the soul of the worker) in a decades-long global moment has accelerated into increasingly circumscribed horizons and possibilities for transindividuation as well as a curtailment of the local as a repository for knowledges useful both in a specific site and potentially beneficial in others. The global prevalence of an ideology that has marked the convergence of neoliberal markets with computation and accelerated proletarianization of skills and knowledges that

characterizes the post-Second World War / Cold War eras in many parts of the world has led to the increased salience and frequency of the question: what makes life worth living? (This is also the title of a 2013 book by Stiegler, the subtitle of which is 'On Pharmacology'.) These conditions point to another imperative necessary to stem entropy: how to live together (an imperative found in yet another book title, this one by Roland Barthes). For if life is worth living, one must confront living it with others and to do so in ways not related to the zero-sum gain of current macroeconomic forces and social stratification. Such a move recasts others not as an impediment to one's self-fulfilment but the vehicle for its realization (to invoke and paraphrase Martin Buber and Emmanuel Levinas).

## After Stiegler with Stiegler: The Internation Project

'First you find a little thread,' the girl says
'The little thread leads you to a string.

And the string leads you to a rope.

And from the rope you hang by the neck.'

The reviews said the lead-lined 'whatsit' they were all chasing was the Bomb, but he thought it was all about desire: those desires that will kill or cure us; insatiable, jealous children fighting over Pandora's jack-in-the-box.

When we want everything and give back nothing

the otherworld will be unlocked, and our whole world taken away. (Robin Robertson, 2018: 178–9)

As mentioned, a key element of the Internation Project – one also found in all the articles in this special section – resides in the collective's book title, Bifurquer (Bifurcate), as it furthers an important point for Stiegler found in Of Grammatology, where Derrida writes that différance is 'the history of life'. That is, life perpetuates itself by deferring its cessation, staving off the entropic end through diversification of thought, knowledge, organs, species, etc. (Bishop and Ross, 2021: 113-14). As a process, bifurcation (or avoiding the cul-de-sac of singularity) postpones entropy and the end of life by avoiding closed systems and processes resistant to transindividuation. Rather than reproducing more of the same, as so many computational practices do within extractive macroeconomic forces, the Internation's plans lead toward further levels of individual and collective transformation found in the dual process of differing and deferring. What is at stake for the Internation is life itself, from the cell to the entire biosphere, where the endosomatic processes necessary for organgenesis are threatened by anthropic exosomatic organs. Though necessary for the perpetuation of human existence, these organs have scaled to an extent and in such ways that the biosphere has been converted to a technosphere that imperils its very existence as a locality habitable for all species.

Marcel Mauss originally coined the term 'internation' in reaction to the establishment of the League of Nations. The concept proposes an internationalism that could at the same time further local diversity and allow the potentially beneficial elements of nations sharing their capacity for internal and external development, with the goal of making economies localized but also capable of externalization and deterritorialization. Levi-Strauss (1978), who wrote an introduction to the works of Mauss, similarly anticipated the destructive forces of cultural consolidation in the closing moments of

*Tristes Tropiques*, bemoaning the loss of cultural diversity under the forces of nascent globalization in its contemporary form. The terms he uses for this process echo those of Stiegler and the Internation Project:

. . . [C]ivilization, taken as a whole, can be described as an extraordinarily complex mechanism, which we might be tempted to see as offering an opportunity for the human world, if its function were not to produce what physicists call entropy, that is inertia. Every verbal exchange, every line printed, establishes communication between people, thus creating an evenness of level, where before there was an information gap and consequently a greater degree of organization. Anthropology could with advantage be changed into 'entropology,' as the name of the discipline concerned with the highest manifestation of this process of disintegration. (1978: 413–14)

Although his reference to entropy in this passage refers to Claude Shannon's use of 'noise' in communication and information theory – all of which resound across the call for a refounding of theoretical computer science – the argument Levi-Strauss makes in these evocative warnings to his own discipline (Anthropology) can he heard in *Bifurquer*: the movement toward consolidation and singularity is entropic. Hybridity and pluralism in response to monocultural drives help slow entropy while generating possibilities for transindividuation. The title of a Wallace Stevens poem, 'The Planet on the Table', spells out the spells that disenchant and mystify the axioms of the global economy operating under the rubrics of progress and growth provided by market measures. The Internation Project seeks to remedy these spells on different and complementary scales.

As with all desires, those that drive the Internation Project are subject to the pharma-cological risks of all plans, actions and phenomena. Such risks are evoked in the epigraph to this part of the introduction. Referring to the 1955 US noir film *Kiss Me Deadly*, about the pursuit of a nuclear device, this novel in verse by Robin Robertson takes us on a short tour through knowledge and desire that can convert a thread of know-how into enough rope to hang ourselves with. 'Those desires that will kill or cure us', he writes, bespeak our precarious pharmacological condition. The referenced film was made in the full post-war flush of cybernetic and systems theory applied to global surveillance and emerging neoliberal marcoeconomic dominance of the market of information disseminated through calculative information technologies. Robertson's lines aptly apply to these extractive models engineered for unidirectional benefit: 'When we want everything and give back nothing / the otherworld will be unlocked, and our whole world taken away'. Such is the concern and warning of the articles in this special section on computational practices and circumscribed futures discussed and analysed by Stiegler and the Internation Project.

But what's next? What comes after? What comes after Bernard Stiegler, as indicated above? Because this introduction and special section function in modes indicative of Stiegler's thinking and showing his influence (as in 'after Stiegler'), and because it comes temporally after his time corporeally amongst us, the entire agenda of this special section invokes being after Stiegler. However, it does not attempt to summarize Stiegler's thought or rhetoric but instead to further it and diverge from it. Nor will this special section attempt to answer what will happen to critical theory after his death. It does suggest, though, that whatever thought and theory will be *after* Stiegler might productively and provocatively be *with* Stiegler.

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### **Notes**

- 1. I would like to express my gratitude to all of the contributors to this special section of the Annual Review for their generosity of spirit and thought as well as for their patience. Special thanks goes to Dan Ross who, in addition to being an excellent Stiegler theorist, has helped at every stage of this section with translations, a published conversation, and wonderfully insightful correspondences. Finally, I would like to thank my editorial board colleagues at *Theory, Culture & Society* who have helped shape the final version of this section with their consistently engaged and intelligent comments and discussions, and of course thanks goes to all the readers who have reviewed and commented on these articles.
- 2. In a talk entitled 'Night Gives Birth to Day', Stiegler writes of this existential situation in the following manner: 'it must regularly be changed, which, in a trivial sense, means that it is not possible in the 15th century to produce work like that in the Chauvet cave, nor in the 19th century is it possible to do so like Leonardo da Vinci, nor in the 20th century is it possible to think like Marx, nor in the 21st century to repeat Duchamp or Beuys, even though it is necessary to produce with them insofar as they are dead and preserved in their works, which thus constitute what I call tertiary retentions'. This is part of the task for all involved with this special section.
- 3. 'The fact of exchange' is a phrase Stiegler used in correspondence with Ross.

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