As told to Anaïs Nony

In his new book, *La société automatique*,[1] Bernard Stiegler departs from a philosophical tradition that opposes autonomy and automatization so as to position automatization at the core of biological, social, and technical forms of life. Responding to the rise of the digital—as the increasing automatization of processes of selection through computational means—Stiegler's project challenges us to recognize contemporary life as automatic. This shift in approach inevitably recalibrates the ontogenetic grounds of contemporary culture, and necessitates a reconsideration of sociocultural practices from the standpoint of the digital modes of algorithmic existence that are enacted within our midst.

— Anaïs Nony: Thank you very much, Bernard Stiegler, for having me in Paris today, in your Institute for Research and Innovation. You just finished a new book titled **La société automatique**. Can you explain what you mean by "automatic society," and especially that element of it that refers to the self, *autos* (αὐτός) in Greek? What does it mean to apply this concept to the social order?

— Bernard Stiegler: Thank you for these questions. First I must say that what I call automatic society is produced by the technology of automatism that is digital technology. Digital technology, that is, algorithmic technology, produces logic automatisms. An algorithm is an automat, or an element of an automat. Today our everyday life is completely overdetermined by automatization, for example through the smartphone, as you know. Now everybody knows that by producing information on the smartphone, he or she is producing cookies, data, etc. These technologies of social networking are produced by what is called the network effect, which means that you are forced to go on Facebook, for example, because all your friends are on Facebook; it is a very mimetic technology. This technology is integrating several levels of automatic behavior.

But what is automaticity in general? Life is automatic. A biological cell, for example, is a sequence of instructions and this sequence of instructions is automatic. The reproduction of life is automatic. When you have something that is not

automatic, it is a mutation, which produces a monster. So automatic repetition is really the basis of life. As living beings, we are based on the automatic behaviors of our cells. All those cells are not machines but devices producing processes of automatic repetition. On this biological base we also have the psychological automatisms: instincts for animals, drives for human beings. Our reflexes, our reactions, are psychologically automatic. Now, you can transform the psychological automatisms. For example, to educate a child is to transform an automatic reaction into a new type of automatism, which is a social automatism. You say hello when you meet somebody, and this is an automatism. In France, and this is probably the case in America, you give your hand when you say hello. But in Japan it is violent, extremely violent. So society is based on specific automatisms which produce a culture. And a culture is also a set of automatisms. If you become a pianist, or a violinist, or if you are a mathematician, you transform your brain into the brain of a mathematician, so that when you hear something, for example, you transform what you hear into a sequence of numbers, or of concepts, or into an equation.

The question is a relation between automaticity and disautomatization. You ask me, what about the self? *Auto* is the common root of two words which are opposite in the philosophical tradition: *automata* and *autonomy*. To be autonomous in ancient Greek philosophy—although it is also still the case with Kant and even later, for example for the Frankfurt School—to be autonomous is the opposite of being in automatic behavior. And I disagree with that. I believe that this point of view, which is a very classical, metaphysical point of view, is completely wrong, because in reality, to become really autonomous you must integrate a lot of automatisms. For example, if you want to become an autonomous pianist you must transform your body into such a thing like the piano. But this is the case for all your knowledge, and knowledge is a set of automatisms incorporated in the body. And now we know very

precisely how such training transforms the organization of the brain. The brain is an automatic machine, and it is a machine capable of disautomatizing its own functioning.

So the question of the automatic society is how to deal with new automatisms, not with automatism in general, because every society deals with a set of automatisms. But now we have to deal with new kinds of automatisms, which are the automatisms of the economy of data. That is, the economy of social networking, of smartphones, of automatic guidance by GPS, etc. And here the problem is that with digital technology, automated technology, it is possible to control the automatisms of everybody and to make them converge into the interest of the controller. I'll give an example: If you use an SMS system for exchanging messages, your system, your smartphone, produces answers to your autographic production of words as you type. It is also the case when you are connected on the Internet, when you make a query on Google, you have, as you know, an anticipation of what you want. If you go on Facebook, you are preceded by your double, which is a digital double. On Amazon you have a set of algorithms describing your behaviors and habits with links. And when you are dealing with Amazon online, Amazon is able to anticipate by analyzing what I call your retentions, your past retentions produced as traces on the network. The system is capable of anticipating the retention you are producing now, in the present, so as to conduct you, to lead you, through what I call *protentions*, which are automatically reproduced.

The question here is that the network works at 200 million kilometers a second while your own body works at 50 meters a second. So the coefficient of difference is that the network is 4 million times faster than your own body. So you are taken by speed. It is a philosophical question that is extremely interesting for me, that this process is a process of computation. This process of computation is automatic and it is possible to automatize, in general computation, that is, in analysis, because understanding in the sense of Kant is a faculty of analysis. As you know,

Kant says understanding is analytic and it can work alone, it can develop its own statements analytically, and develop sequences of these statements. Reason is synthetic, not analytic, and thinking is how reason is capable of interpreting the consequences of analysis, of the analytic research of understanding. I tell you this because in the case of the automatic society, based on these digital automatisms that are algorithms, there is a fact in which the speed of understanding, which is working at 200 millionths of a second, is so much more important than the time of reason. Reason works at 50 meters a second. There is a differential between the two faculties, which is a kind of collapse of reason.

I don't believe that this situation is sustainable. I like to recall that Chris Anderson said in his article, "The End of Theory," that on Google we don't need linguistic knowledge, because applied mathematics are much more efficient than the linguistic form, for example in translating Chinese into English. The sense of Anderson's article is that today we don't need to produce biologists, linguists, etc. We need data scientists, applied mathematicians, that is, computer science. I also like to recall that four months later, in October 2008, Alan Greenspan testified in a congressional hearing in Washington, saying "yes, I agree, it was wrong to use these automats for financial markets. Now I know, like you, that it was absolutely stupid. Because it is impossible to formalize an economic reality! It is not even possible to formalize a theory of a living being. What is life? This is the title of Erwin Shrödinger's book, **What is Life?** Economy is a form of life. Life is negentropic, and this means that it is not possible to calculate the future. You can calculate what is deterministic and entropic; you cannot calculate what is negentropic, and even by the probabilities, because what is negentropic is a singularity, it is a bifurcation that is impossible to anticipate with computation, with probabilities, etc. It is also what Maurice Blanchot calls the *improbable*. So with probabilities you can't deal with the improbable. The reason for this is that if you deal with the improbable with probabilities, you destroy the improbable. And this is the reason why Frédéric Kaplan says that the use of algorithms by Google is destroying language, because Google is destroying the idiomaticity, the singularity of language. So behind this question of automaticity is a question of entropy and negentropy, not of autonomy and automaticity.

For almost two centuries, we've known that the universe is conducted by the law of entropy. But on our planet, the law is not entropy, it is negentropy. Life is negentropic. The philosophical problem, but also the social problem of the automatic society is, how shall we deal with the entropic trends and tendencies of computation? Shall these processes of computation developed on the social network completely destroy the negentropic culture, the negentropic mode of life, negentropic knowledge, for example linguistic or biological knowledge, only to submit to the process of probability, of entropic analysis without synthesis, without decision, without bifurcation? Or shall we use the game of time, the time won by automaticity, for producing a new capacity of negentropization, of disautomatization?

Here I must say that the reason for which I decided to publish this book is that I now believe that in the next ten years we will see the collapse of employment and the destruction of the salaried condition. We are turning to a new and completely different society, in which the Fordist compromise based on the redistribution of incomes collapses. With the process of automatization it's not possible to organize a redistribution of the power for purchasing, because you don't have incomes, you don't have employment. So how shall we organize society, to make it work, to make it work for selling the goods produced by automats? I believe that it's necessary to reinvent a new process of redistribution in which what is redistributed is time. And time is given to you for developing your capacities, your knowledge, your possibilities for producing bifurcations, disautomatization, negentropy. Here the model is what we call the contributive income, which is based on the model of intermittent workers.

This is an occasion for me to make a connection with Jonathan Crary, who published the book **24/7**. The theme of the book is how capitalism is destroying sleep and dreaming. What is dreaming? It is an intermittent situation in which you can imagine, for example: How can I become a bird? Leonardo dreamt to fly, and at the end of the 19th century this dream was realized. This is a negentropic activity. Negentropy for humans is produced by dreaming. Dreaming is a capacity for creating new arrangements between retentions, for producing a new kind of retention, which is absolutely singular, absolutely improbable. It is a kind of silly thought, which we find in the work of poets, and mathematicians too. But this is reason—this is original reason capable of making a bifurcation into analysis. The only way for me is reason. That is, not necessarily academic research, but new critique and new propositions, and also practical propositions. We believe that the digital in general, digital technology, is completely transforming all types of knowledge, knowledge as *savoir-vivre,* knowledge about how to make things, knowledge as scientific knowledge, that is, formalized knowledge, academic knowledge, *all* types of knowledge are transformed. The digital is a very important epistemological revolution.

What is a science in which an artifact is a condition of science? This is extremely new, and this is the question of the future, of the becoming of the universe in which everybody is concerned. So what we try to do at the Institute for Research and Innovation is to produce examples and demonstrations of possibilities. This is what I call *practical organology*. We practice new types of instruments, of apparatuses, of devices that are not produced by the market because they are not necessarily good for the market. But they are good for knowledge! I believe that today the political struggle is an organological struggle in which it is necessary to produce a new critique of political economy, of science, of behaviors, of everyday life in the sense of the Frankfurt School. So it is the same program as the Frankfurt School, but the axioms are not the same. The Frankfurt School is wrong in its definition of reason, because reason *is* techno-logical. I believe that today we have to completely revisit what was developed in several countries, notably in France with Canguilhem, with Foucault, with Leroi-Gourhan, with Simondon—that is, an approach of the technological or organological fact, which is at the core of reason, not outside reason. I think that today, if we are to challenge and completely change the nature of knowledge, because there is an organological mutation of knowledge, we need to completely reinvent our politics.

1
Bernard Stiegler, **La société automatique 1. L'Avenir du travail** (Paris: Fayard, 2015).