This is a segment of conversation between the philosopher Bernard Stiegler and cultural theorist Irit Rogoff that took place on the occasion of Stiegler’s lecture series, “Pharmaconomics” at Goldsmiths in February, March 2010, as part of his current professorial fellowship. In this segment, we touch on a couple of Stiegler’s key terms in the development of his thought, such as “transindividuation,” “transmission,” and “long circuits.” In his three-volume work *Technics and Time*, Stiegler has argued that “technics” (a constellation of models and discourses converging on information systems, codes, prostheses, machines, etc.) constitute what “is most properly to be thought as the key philosophical question of our time.” As Andrés Vaccari states about *Technics and Time*:

In the human sciences, culture and language have also been progressively engulfed by the universe of technics: the artificial realm of institutions, rituals, knowledges, symbol systems and practices that makes humans functional, speaking, meaning-making creatures; that is, what makes humans *human*. The essence of the human, it seems, is the technical; which is paradoxically the *other* of the human: the non-human, the manufactured, unnatural, artificial; theinhuman even.¹

For Stiegler, the concept of “transindividuation” is one that does not rest with the individuated “I” or with the interindividuated “We,” but is the process of co-individuation within a preindividuated milieu and in which both the “I” and the “We” are transformed through one another. Transindividuation, then, is the basis for all social transformation and is therefore a way of addressing what happens within education. Equally, terms such as “short-circuit” indicate a break or a departure in thought and “long circuit” that intimate a range of connectivities that allows for the passage of thought across time:

The gigantic financial crisis sending tremors all over the world is the disastrous result of the hegemony of the short term of which the destruction of attention is at once effect and cause. ... marketing, from the emergence of the programme industries, transforms the psychotechniques of the self and of psychic individuation into industrial psychotechnologies of transindividuation, that is, into psychotechnologies threaded by networks, and as the organisation of an industrial reticulation of transindividuation that short-circuits traditional and institutional social networks.²
Another key term for Stiegler’s thought is the notion of “attention,” which he greatly develops on from the work of the philosopher Gilbert Simondon, and which obviously has exceptional value when talking about the modalities and textures of educational processes.

Attention is the reality of individuation in Gilbert Simondon’s sense of the terms: insofar as it is always both psychical and collective. Attention, which is the mental faculty of concentrating on an object, that is, of giving oneself an object, is also the social faculty of taking care of this object – as of another, or as the representative of another, as the object of the other: attention is also the name of civility as it is founded on philia, that is, on socialised libidinal energy. This is why the destruction of attention is both the destruction of the psychical apparatus and the destruction of the social apparatus (formed by collective individuation) to the extent that the later constitutes of system of care, given that to pay attention is also to take care.3

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IR: I have several questions, but perhaps we can begin with some general thoughts not on what you think education is, but how you approach it. Because it seems important to open up education to a series of much larger entry points so it’s not exclusively about classrooms or institutions of learning. So maybe if we start with the question of what you think possible entry points into education may be?

BS: In fact, I propose to speak about three levels of education. The first is education in the larger sense of transmission – inter-generational transmission – because, to my mind, this is the essence of education. What is education in this sense? Education is the relation between diverse generations, and contact is its mode of transmission. For example, an artist is capable of affecting, in and of themselves, a line of transmission from Paleolithic art through to contemporary art, and this transmission is a relationship to time, to human – I don’t like the word “human,” so perhaps we could say “mortal” – experience. These lines are within the artist, not made manifest by him or her, nor are they structures of representation, and they are put into effect through their practice, through the contact with them.

Initially, the most common, everyday experience of education is the relationship between parents and children, or we could say that the space of the family is the first space of education. And here we can already begin to identify problems, which are very close, very connected to problems that you can see at other levels and modalities of education, in schools and in museums and in other similar institutions. And so I would like to speak about those three levels; this “family” education; academic education, lets say; and “cultural” education, that of cultural institutions. And in these three different levels, you can encounter the same problems – problems of circuits, long and short. Today, the problem of education at the level of the family is the short-circuiting of the relationship between generations through the operations of the media. What is created between generations are in fact long circuits. What Freud or Groddeck call the “id” is an unconscious space of long circuits. These unconscious spaces link generations along very, very long spans of time. What is produced within these long circuits are the material of the dream, for example, which is at stake in Freud’s interpretation of dreams, as well as clearly being the matter from which artists operate and produce. Joseph Beuys is extremely important for me because he was working on this question of long circuits aligning him in individuated ways with the past.

It is equally the problem of academic institutions, because when you are teaching geometry or geography in scholarly institutions, you are creating long circuits with very distant generations – creating a unity with the past that allows for creating a unity with the future. Religion, politics, even sports, and in fact everything that is a support in the human life is a support of those circuits. Those three modalities of transmission are extremely important for us because they are the main institutions of those transmissions. They are over determined by what I described as a “pharmacology” and what I describe as an “organology.”4 For example, in Husserl’s last discourse about geometry, he says that it is impossible to access geometry without writing, and writing is a condition of the invention of geometry – and he says “invention,” not discovery. He shows that in this type of education – which is typically the model of scholarly education – geometry is the matrix of scholarly education. That geometry exemplifies a theoretical, scholarly education, in which he states that there are technical conditions for accessing geometry.

For myself, at the “Institute for Research and Innovation” (IRI) and also at IRCAM (Institute for Acoustic and Musical Research and Coordination), both in the Pompidou Center, I try to develop what I call an “organologic” approach to the question of musical experience, not only...
for the musicians, but for the public. And why did I develop that? It was because I had a problem when I was director of IRCAM: the musicians, the composers, working in IRCAM had only a very limited public, a very small public. And the problem of this public was not its size, not an institutional consideration with the size of the public – the problem was that it was only a public of professionals.

IR: Not a general public.

BS: Not a general public, and not a public of amateurs. And it was really extremely problematic for me, politically problematic but also artistically and philosophically problematic. So I decided to try to understand how this situation was possible. It was at this moment that I decided to rethink and reactivating the tradition of what in the field of musicology is called “organology,” but I decided to propose what I call an expanded organology, that is, an organology that didn’t study only instruments but also the conditions of music’s reception by the public – for example with hi-fi apparatuses, the impact of radio networks, possibilities created by mp3 players, but also the structure of the architecture of the music halls, and so forth, and also software, because IRCAM was a research center in which software had a prominent conceptual place. I worked for one year with a musicologist around these questions – a young musicologist who was extremely interesting and a specialist on the work of Joseph Haydn, a composer with a politics as well as a policy regarding the public. For example, Haydn had created the concept of a society of concert music (Musikverein), and he imposed the repetition of newly composed pieces of music – the public had to stay and listen to the piece played three times.

IR: On the same occasion?

BS: On the same occasion, yes. And I discovered that in fact in the 1880s, the Paris Opera had an extremely interesting policy regarding the “public.” When you were a member, you had a subscription to the opera, and you received the entire score of a new production before the performance. And you also received the transcription of the piece, an arrangement for piano and violin and voice as well as a commentary on the complexity of the score. And you had to prepare yourself before going to the concert hall. Why? In fact, at this time throughout the bourgeois families you had people with skills at playing the piano, the violin, or singing, and everyone was reading and writing music. Being capable of playing music was a condition for listening to music, because if you could not play, it was not possible to listen to this music. Because there were no hi-fi apparatuses, there was no radio or phonographs. So at the beginning of the twentieth century new apparatuses appeared that suddenly created a short-circuit in the skills – the musical skills of the public.

My own grandfather who died in 1935 was a worker who drove locomotives, but he was capable of reading music. But in my generation, our generation, reading music is exceptional, it’s not common knowledge, so in fact I think that in the twentieth century you had an extremely important, instrumental shift, a transformation in education in which suddenly the skills of the “savoir faire” – of playing instruments and reading scores – were short-circuit, and suddenly the relationship between artworks and their publics was completely changed. It was a long process, but one that was greatly heightened with the coming of television, and I think that this evolution created a change – a very deep change in society and was creating what I call a short-circuiting of the possessive transindividuation.

Here I need to explain what I call transindividuation. My thought was much influenced by the philosophy of Gilbert Simondon, who was an important thinker of individuation. Simondon says that if you want to understand the individual, you need to inscribe the individual in a process of which he is only a phase. As such, the individual has no interests. The individual is only an aspect, or phase of a process, but the process is what is important. So what is this process? It is the process of individuation, that is of transformation, and for Simondon, everything is a caught up in and brought into a process of individuation. For example, the passages of life are a process of individuation, but “technics” are also processes of individuations.5

Now we ourselves, as humans, are a type of individuation that is very specific, as our individuation is not only a vital individuation, that is, an individuation of the living organism, of life, but an individuation of the psyche as well, so it is operating as both conscious and unconscious processes. And Simondon says that the individuation of the psyche is always already an individuation of a group of psyches, because a psyche is never alone. It always operates in relation to another psyche. At the limit itself, himself, or herself, a psyche in this situation is a very specific doubling of oneself in narcissism and a type of dialectical relationship to oneself. But this situation of dialogism in the psyche is an interiorization of a primordial situation in which, if you follow the arguments of Freud or Winnicott, you are in a dialectic relationship with other psyches, such as that of your mother or your father. This individuation, for example, is omnipresent and continuous. When you are
reading a book, you individuate yourself by reading this book because reading a book is to be transformed by the book. If you are not transformed by the book, you are not reading the book – you believe that you are reading. You may believe that you are, but you are not.

IR: So reading a book is a short-circuit.
BS: It can be a short-circuit if you believe you are reading a book and you don’t in fact read it. It is a long circuit if you individuate yourself by reading the book, if you are in the process of individuating yourself. Now the theory of Wolfgang Iser – the theorist of the school of Konstanz – is that a book is a process of individuation, a book doesn’t exist as such. What exists as a book is the community of the reader. And this is extremely interesting. Because it says in fact that a book is a power of individuation, but not individuation as such. It is the circuit created, the long circuit created by the readers, which is the individuation of the book. And it is not only the case for the book. It is the case for every artwork or other forms of creative work in the humanities. Now, when you are individuating yourself with somebody – for example, we are now in discussion and in speaking, I am individuating myself. But in listening to me, you are individuating yourself through my discourse. You can individuate through my discourse by adherence with my discourse, but it’s also equally possible to individuate oneself by its contradiction, its negation.

A co-individuation is not the same as individuation, it is a process of individuation – for example in the dialogues of Plato, in which you have the presence of Socrates and Gorgias who are not in a position of individuating themselves. In the dialogues of Plato, the goal of the dialogues is nevertheless to reach a kind of agreement, even an agreement on disagreement if you can say, “we disagree on that,” “we agree on things,” “we disagree on that,” it is a kind of disagreement. It is a disagreement with an agreement about the disagreement. Part of the belief in socialization was to stipulate that a “gentleman” is capable of arriving at an agreement about a disagreement while a “barbarian” is not capable, and that is important for our argument here. This process of co-individuation, when it produces a kind of convergence and agreement, transforms the process of trans-individuation. Why? Because if you have a discussion and a topic, in the discussion you have several positions expressed during the discussion, but you have a moment in which you have what Simondon calls a “meta-stabilization” – a kind of agreement that can become a rule. For example, if you are a geometer or a moviemaker, you will meta-stabilize something that will become the style of Euclid, or the style of Fellini, or the style of Godard, or the style of Expressionism in German cinema in the twenties, and so on and so forth. And this becomes a kind of cultural inheritance, which created in philosophy, for example, a new dialectic, or perhaps an “apodictic” (the branch of philosophy that analyzes influence) that will then be transmitted in the operations of a conventional “objective” education.

Now we come to the question of trans-individuation, which is a question of the creation of circuits. For example, what is a great artist? Or a great philosopher? But also a great architect? Or a great person? Somebody really specific, singular – somebody who is recognized as a singularity who has created a new type of circuit on which other people can come and continue the circuits. That’s extremely important.

IR: So the value of something is actually the capacity for trans-individuation that determines entry and continuation of those circuits? Not the production of something unique, but of a circuit to which others can add themselves by building on it.

BS: Yes. Now the conditions of creating of circuits of trans-individuation are always organological – the creation of circuits themselves are always organological. For example, when you have a discussion between Socrates and Gorgias, this discussion is possible only because Socrates and Gorgias have learned how to write and to read. They have a common skill, a technical skill of reading and writing, which is the origin of the Polis, and without those skills it is impossible to have law, to have geometry, to have a philosophy, to have a relationship to Homer and to Sophocles, all of which define the approved and valued path for Greek civilization. And if you are in a shamanistic society, there is another organology, but you still have one. I just came back from Senegal, for example, and it is extremely clear when you practice ethnography in that context. You immediately have the role for technics when you open spaces for relationships between people that are in fact spaces for transindividuation. In fact, if you don’t practice those technics, you can’t enter in the circuits. It’s not possible.

IR: Give me an example of how you are using technics in this argument?
BS: For example, the drinking of tea of tea in Senegal is a technic. In Senegal you have three times for drinking a tea. You have the first tea, which is “attaya,” extremely strong, the second they call the tea of life, and it is sweet, and the third one, which is even sweeter, is the time of love. But you will never meet a Senegalese person drinking only the first one or only the third one.

IR: It is an integrated system.
BS: It is a ritual and you have a technic for producing this. This is a very common thing. In fact, religious practices are technical, what is at stake in what Foucault calls the “technology of the self” are, after all, all technics. For me writing books is a technic of the self, now music is a technic as well. In Africa music is particularly a technic – extremely important for creating a space or opening of trans-individuation.

Now why am I speaking about this question? There is a specific reason, an argument I am putting forward, which is that, in my point of view, the twentieth century began in the nineteenth century. There was a change, a very deep change, in the organology of transindividuation. Such was the text of Adorno and Horkheimer “The Culture Industry: Enlightenment as Mass Deception,” in which suddenly – through what is currently called mass media: television, cinema, radio, now digital technology and networks as well – the development of a new organology was forged, which in turn creates a new organization of the circulation of the symbolic. Within this new mode of organization, suddenly the production of the symbolic becomes industrial, subject to industrial processes. Here you encounter the production of symbols on the one hand, and the consuming of such symbols on the other – an *aporia* because it is impossible to consume a symbol. The symbol is not an object of consumption; it is an object of exchange, of circulation, or of the creation of circuits of trans-individuation. So this situation suddenly produced what I call short-circuiting – of trans-individuation. And it is a very long story, it is not framed by a short historical period, but extends over a long time.

IR: This is akin to the situation at IRCAM, the original situation that you started working with.

BS: Yes, but for me, it is not only a situation for IRCAM as an institution – it is the situation for families now, for schools, for everything. Because, yes, it is true that I originally investigated musical questions through those topics, but later I opened this question, I proposed a more general theory of society today, of contemporary society, which is that we are in a society in which organology has become industrial. And that this industrial organization results in an organization through the production of consumers and producers.

IR: I want to go back for a moment to the original situation that you were describing about publics for music and the recognition that you were opening up a whole set of contemporary technologies that were part of a transmission of music and ability to read it through different languages, not by, let’s say, reading scores, but by being able to be part of certain types of technologies. I want to ask you how you differentiate between that and a kind of populism that states that we have to get audiences by whatever means available to us. If audiences are responding, let’s say, to new technologies in a way that they are not responding to old technologies, then that’s how we’ll work. I think that there’s a difference between these two things. The latter is based on a kind of recognition of emergent demographics.

BS: Yes. The question is criticizing, being critical and producing critique. The ability to critique and the capacity to discern. These are the two questions. There is an extremely interesting sentence by the anthropologist André Leroi-Gourhan who says you need to participate at the level of feeling, of emotion, in order to exit something – not reject something, but engage with it emotionally. Why did he say something like that? He was a reader of Bergson, just like Simondon, and you know the problem for Bergson is what is called the “loop stimulus” – it is not a stimulus response, but is like Marcel Mauss, with the exchange of gifts. You can receive if you can give. If you can engage, you are also able to exit. If you are able to engage critically, then a process takes place that would otherwise remain static.
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3 Stiegler, “Within the limits of capitalism, economizing means taking care.”

4 Stiegler’s lecture series at Goldsmith’s 4th, 11th, 25th February & 4th March 2010 focused on “pharmacology.” His introduction to the series stated that he hoped to examine:

- why the pharmacological situation in which we live, as technological beings, that is to say as non-beings, always becoming, needs an economy of this pharmacology: an economy which tend to optimise the curative effects of pharmaka and to reduce the toxicological ones;

- why such a pharmacology can never purify the technical remedies of their poisoning side, whereas there is nothing human which is not technical Peven language, and then, thought.

- I will try to show today why, if a pharmacology is a grammatology, it needs the development of a history of the supplement that gramma is, and not only a logic of this supplement. Of grammatology announced such a history, but in fact, this one never appeared.

- We will see that this history of the supplement needs to develop the concept of a process of grammatisation, which is the process of production of all sorts of gramma which are pharmaka as well.

A pharmacology is what prepare therapeutics, which is a historical form of adoption and of socialization of a pharmakon, or rather, and more precisely, of a system of pharmaka. This therapeutics, as an adoption of pharmaka forming a system of care, is founded on what was called in the classical age a political economy which is, then, an economy of the supplement studied with the concept of grammatisation: which is not simply a grammatology. Thus considered, the economy of the supplement is a kind of new critique of political economy as well as of libidinal economy.