'Social autonomy and heteronomy in the age of ICT. The digital *pharmakon* and the (dis)empowerment of the general intellect'

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In this talk, I want to explore the question of how the new digital network technologies (DNTs) can help increase the social autonomy of workers and citizens with respect to the machinations of capital in the current conjuncture of cognitive and consumerist capitalism and how they can be employed to fight against the overwhelmingly heteronomizing effects that these technologies have shown to possess over the last few decades, a loud choir of ideological proponents of a bright digital utopia notwithstanding. In other words I want to explore how these technologies can foster the empowerment of what is called the 'general intellect' in the Italian post-Marxist movement of post-autonomism or post-operaism, one of the most vital movements of Marxist thought in recent times and one to which I am very sympathetic, I have to admit from the very outset. Although this tradition of thinkers, whose ranks include Antonio Negri, Michael Hardt, Paolo Virno, Maurizio Lazzarato and Franco Berardi, is explicitly concerned, among other, things with studying the shifting relationships between technological change on the one side and the class struggle of workers against capital and vice versa on the other, what is generally absent in their analyses is an explicit account of technology and the various ways it mediates, constitutes and conditions social relationships and relations to self. In short, it lacks an explicit philosophy of technology. In this talk, therefore, I will try to use Bernard Stiegler's so-called pharmacological conception of technology (a view that shares certain similarities with Andrew Feenberg's idea of technical ambivalence) and see how it can be used to elaborate and enrich the analyses of today's general intellect by the operaist-autonomist tradition, which always revolve around the issue of recomposition or the empowerment of the general intellect as the process of collective political subjectivation of workers. For lack of time, however, I will only give some suggestions in that direction.

Let me first explain the notion of cognitive capitalism. Cognitive capitalism, a term coined by the French post-operaist economist Yann Moulier-Boutang, is the current mode of capitalism in which not labor power but cognitive and affective capacities are the crucial determinants of productivity and the main sources of surplus value. It is a kind of capitalism that thrives on the exploitation of cognition, attention, affection and what Moulier-Boutang calls attention-power and invention-power. It involves the capturing of monetary gains from knowledge production and innovation by a collective intelligence or a general intellect described by Lazzarato in terms of 'cooperation between brains'. Using the metaphor of bees, Moulier-Boutang writes that the wealth produced under cognitive capitalism derives from the constant 'pollination' of society by

the multitudes on the wings of the digital networks (p. 108). Cognitive capitalism submits cognition to the economic imperatives of profit maximization and competition, and replaces industrial capitalism, which was based on the exploitation of labor power as muscular capacity. In the context of cognitive capitalism, and as a result of the deployment of DNTs, the human cognitive system is increasingly incorporated into the digital cognosphere.

One of the central concepts within post-autonomist discourse, rediscovered from the famous 'Fragment on machines' in Karl Marx' *Grundrisse* and reinterpreted in the context of today's cognitive capitalism, is that of the general intellect. Marx uses this notion of the general intellect in the *Grundrisse* only once, to designate the objectified labor incorporated in machines or as the power of knowledge and science, incarnated in machines as dead labor or as fixed capital subsuming and controlling variable capital or living labor. For Marx, the notion of general intellect refers to the system of machinery as the scientifically objectified power of labor that is transformed *as such* into the power of capital. In the machinery of industrial capitalism, the laborers' knowledge appears as something alien and external to him and living labor appears as subsumed under self-activating objectified labor. As Marx writes: 'It belongs to the concept of capital that the increased productive force of labor is posited rather as the increase of a force outside itself, and as labor's own debilitation'. This debilitation of labor, an expression that was used already by Adam Smith in *The Wealth of Nations*, designates what is more familiar within Marxist discourse under the name of proletarianization, the process that produces the proletariat that is hailed as the emerging revolutionary subject of history in the *Communist Manifesto*.

In post-autonomism, however, the concept of the general intellect is understood quite differently, not as external machinery opposing living labor as fixed capital but as fixed capital *inside* living labor, i.e., as an attribute of living labor. In cognitive capitalism, the general intellect comes to refer to the information, the communication, the languages, codes, skills and competences of the immaterial laborers. As Antonio Negri emphasizes, cognitive capitalism's labor force carries its means of production once again insie itself, in its brains. It is fixed capital residing in the nervous systems of living labor and is referred to in the human resource departments of companies and public institutions as 'human capital'. According to Negri and many other post-autonomists, this general intellect as the fixed capital residing in human brains grants labor a relative yet increasing independence with respect to capital and allows it a growing margin of autonomy. It would also represent a break with the process of proletarianization, since it involves a certain reappropriation of the means of production by labor, thereby putting an end to the dialectics of the instrument of labor first theorized by Hegel. As will be shown, however, this assertion is highly doubtful.

Post-autonomists generally applaud the digital revolution and the chances it provides for the struggle of labor against capitalist domination. Moulier-Boutang and Hardt and Negri, in particular in their *Empire* trilogy, affirm that DNTs are ultimately favorable to the expansion of the autonomy of the multitude vis à vis capital, although they enable new and highly effective forms of labor control as well. Both labor and capital have to operate under the network condition

today, the digital networks providing the matrix for both the new figure of sovereignty known as empire and of immaterial production by the multitude, the living prey *and* alternative to empire. For Hardt and Negri, given its globally networked condition, the multitude as the assemblage of singularities forming the new proletariat is principally capable of self-rule and autonomy, since it is able to produce its own means of production (that is to say: cooperation and communication as the substance of the common) all by itself, independent of capital. In fact, they suggest that the immaterial production and decision-making via DNTs by the multitude provides the model for a genuine multitudinous and absolute democracy. So, for Hardt and Negri, DNTs are ultimately empowering and autonomizing, providing, in principle, the socio-technological condition for a global radical democracy as the self-rule and self-management of the multitude.

A much more critical, if not outright pessimistic diagnosis of the potential of DNTs can be found in the work of Jodi Dean, who does not belong to the post-autonomist tradition but who is sympathetic to the communist cause and largely subscribes to Hardt and Negri's analysis of the common. Dean perceives the DNTs from the angle of what she calls 'communicative capitalism', a current form of capitalism based on the commodification, control and exploitation of communication. Think Google, Facebook and Yahoo. According to Dean, today's digital networks entrap users in circuits of enjoyment, production and surveillance in which they voluntarily and frenetically engage. Inspired by Lacanian psychoanalysis, or its updated version by Slavoj Zizek, she conceives of digital networks as affective networks that capture their users in repetitive and addictive loops of drive and self-centered reflexivity. Communication and participation on the Internet is anything but emancipatory and does not aid democratization in any useful way. Instead, it reinforces the domination of capitalism and frustrates the formation of collective desire, promoting ego-centered and individualistic, capitalist desires instead. Digital networks absorb the attention and the critical energy of those participating in it, distracting and fragmenting it, thereby depoliticizing subjects. They atomize and individualize subjects and prevent the formation of solidarity and feelings of community. They are also proletarianizing and expropriating, deskilling us and robbing us from our collectively produced knowledges and codes. Also, by constantly capturing and exploiting our attention, they exhaust users' cognitive and affective potentials and systematically impede their engagement in the real politics of organizing, protesting and confronting the powers that be head-on. For Dean, it seems clear, DNTs are ultimately disempowering and heteronomizing. The big political question, in her eyes, is how to escape from our capture in these affective networks of drive and to create the conditions for the formation of a collective desire, a desire for communism, for a 'communicative communism' as it were. It is important to note that for Dean, desire and affectivity are crucial for thinking about the possibility of emancipation and liberation in the age of digital ICTs. This emphasis on the libidinal and the affective is also apparent in the analyses of DNTs in the work of Franco Berardi and Bernard Stiegler, to whom I will turn now.

In stark contrast to Hardt and Negri, Berardi fails to perceive the emancipatory potential of DNTs. His diagnosis is much closer to that of Dean and, as we will see, to that of Stiegler. His

term for the contemporary form of capitalism is semiocapitalism: a capitalism thriving on the exploitation of linguistic, symbolic and cognitive, that is to say sign-producing or semiotic labor. Like Dean, but more focused on cognitive production than communication, Berardi points to the fact that cognitive or immaterial labor, far from gaining more and more autonomy with respect to capital, is becoming increasingly captured and controlled inside the digital networks, through the implementation of what he calls technical and financial automatisms operating according to the logic of competition and surplus extraction and engendering more and more psychological and social automatisms. What he sees emerging in the context of cognitive capitalism is an increasing integration of the human mind into the digital circuits of capital, the organic nervous systems of the cognitariat more and more incorporated into and submitted to the operational logics and rhythms of the digital nervous system, shaping a genuine 'assembly line of net-production'. The cognitariat's consciousnesses are exposed to an ever more expanding and accelerating cogno- and infosphere, a situation that leads to a growing discrepancy between cyberspace, the ever growing and virtually infinite mass of semiotic and informational commodities circulating on the net, and cybertime, the finite mental time necessary for processing and elaborating this information. This discrepancy induces all kinds of psychopathologies – like depression, anxiety, panic and attention disorders of all kinds – and leads to the exhaustion and ultimately destruction of psychic and mental energies. It erodes subject's sensibility and affectivity due to the constant pressure to adapt one's psychic apparatus to the codes and rhythms of the network. Moreover, the constant mobilization of attention as well as the fractalization and fragmentation of workers' time prevents the formation of collectivity and solidarity as a necessary basis for effective resistance and action against the domination of capital. It is due to these paralyzing and sterilizing labor conditions, Berardi claims, that the political recomposition of the general intellect, and the possibilities for political subjectivation and the creation of solidarity, is systematically frustrated. The necessity of always 'being connected' for participating in cognitive production supposes the adjustment of one's psychic apparatus to the codes, the logic, the speed and the rhythm of the infosphere and engenders the loss of reflexivity and the erosion of sensibility and receptiveness. A central theme in the admittedly quite gloomy analyses of Berardi is that of the exhaustion of libidinal energies as a defining dimension of contemporary cognitive labor, a theme that also runs through the work of Stiegler as we will see. The minds of the cognitarians, glued to demanding screens from the morning until the evening, are more and more disconnected from their bodies as well as from the social body. Berardi states that it cannot be denied that the intellectual capacity of today's general intellect is potentially boundless, and here he is in agreement with Hardt and Negri and Moulier-Boutang, but that it currently lacks any consciousness of itself. The creation of such a selfconsciousness is precisely the emancipatory political task of the future.

Berardi's work is important in that it shows that transformation in the techno-cognitive environment change the conditions for political subjectivation and redefine the possibilities as well as the limits for collective struggle. However, he only seems to perceive the negative side of current transformations. For him, the big political question is how to create a self-consciousness of the general intellect so as to gain a common ground of understanding for collective action that

can be effective and truly autonomizing. His suggestion is that the kind of politics necessary for such a task of commonization and autonomization should have the character of a therapy and not of political resistance and action in the traditional, say Leninist sense of the term, which would only deepen our exhaustion and depression. An effective and vitalizing future emancipatory politics should concern itself instead with re-directing the social investments of desire, from the pathogenic investment in competition, accumulation and work to an investment in community, friendship and love. Thus, for Berardi as well, desire and affect are crucial. Important to note here is that Berardi conceives of desire not anymore as a force that is inherently emancipatory but, inspired by Baudrillard, as a field upon which conflicting forces intersect, principally mediated by technology. The problem with Berardi, however, a problem similar to that of Dean, is that no effort is made of developing a strategy for confronting and dealing with the diagnosed situation in terms of that situation itself, i.e., on the terrain of DNTs, the inevitable condition for political engagement in our time. Both Dean and Berardi keep silent, or so it seems, when it comes to the question of how to transform the situation from within so to speak. They do not seem to perceive any chance of changing the currently hegemonic disempowering efficacy of the DNTs for the better, or at least they do not make any effort in theorizing such a possibility. This might be explained from the fact that they both lack a theory of human-technology interaction and of technological change. Neither do they possess any conception of a technopolitics.

Andrew Feenberg, in a thoughtful and balanced article on the question of the Internet, responds to Dean's all-too critical media theory, in his opinion, by resolutely defending the democratic and emancipatory potential of DNTs and by accusing Dean's rather bleak analysis of them of being too reductive, highlighting only some aspects of the Internet while disregarding others that are less disempowering and more promising for democratization. Although still a Marxist of sorts, Feenberg does not theorize the Internet from the perspective of the class struggle, like Dean and Berardi. His concern as a critical theorist of technology is democratic participation and he affirms that the bottom-up communication and cooperation afforded by the Internet unmistakably has emancipatory potential and efficacy. He sees no evidence for Dean's claim that the widespread use of DNTs is responsible for the decline of political resistance and action. For Feenberg, who has a theory of technological change as well as an elaborate notion of technopolitics, the Internet shares with all other technologies the characteristic of being ambivalent and essentially contested and therefore contestable. It is a terrain of struggle among social actors contending for control of its technical code, the two most important contenders nowadays being businesses on the one hand and publicly engaged actors on the other, the former preferring a consumption model, the latter striving for a community model of online communication and interaction. Neither model has, so far, succeeded in achieving total victory. While not dismissive of Dean's criticisms perse, Feenberg argues that many online communities do engage successfully in both conventional and non-conventional forms of politics, medical patients collectively using the Internet for actively influencing research agendas being a prominent example. What is more, Feenberg argues, the Internet is still in its infancy and its potentials are therefore still to be explored and struggled for. He then goes on saying that we actually still don't know what the Internet is, because it will only

be that what it will become through social struggle. Through a technopolitical analysis of the various layers constitutive of the Internet, one that I cannot replicate here, Feenberg shows that there is plenty of possibility for emancipatory action. None of the layers that he distinguishes favors either the interests of business or those of public actors with emancipatory goals. It is by any chance just too early to condemn the Internet, Feenberg concludes. Instead, we should critically engage in promoting its democratic potentials.

Although I find Feenberg's defense of the Internet convincing, I nevertheless think that he underestimates in particular the phenomena of capture and exhaustion that are diagnosed by Dean, and even more emphatically by Berardi. This, I would not say blindness but lack of attention to these libidinal aspects of our increasingly digital and digitized lives may be explained by the fact that Feenberg, although a student of Herbert Marcuse, does not have a libidinal perspective on human-technology interaction. What is more, although always emphasizing that humans are technical beings and that humans and technology co-construct each-other as it were, his understanding of this co-construction is largely sociological and never addresses the more intimate, psychological and cognitive dimensions of this co-construction, if one may put it like that. Such a view might consider the fact how DNTs intimately, and that is to say ultimately on a neurological level, affect our psychic and cognitive apparatuses, i.e., the way we think, feel, perceive and desire. It is such a view that is provided by the organological approach towards technological change put forward by Bernard Stiegler, whose analysis of DNTs I want to briefly touch upon now.

For Stiegler, the DNTs represent nothing less than an epochal technological transmutation, that is to say a mnemotechnological transmutation no less decisive and disruptive than the invention of writing at the dawn of Western civilization and printing at the dawn of modernity. It represents a new, that is to say third phase in what the French linguist Sylvain Auroux calls grammatization as the process of formalization and externalization of human language, the two earlier phases being that of alphabetization and writing. As such, DNTs usher in a wholly new *episteme* in the sense of Michel Foucault and allow for totally new epistemologies in the sense of Gaston Bachelard. They will totally reconfigure the human mindset, like writing has done in ancient Greece at the time of Plato, as classicists like Ong, Goody and Havelock have shown, or what printing did from the early fifteenth century onwards, as Elisabeth Eisenstein has pointed out. They are also on the way of reconfiguring our neuronal structures, changing our brain structure, as neurologist and psycholinguist Maryanne Wolf has argued, from 'reading brains' to 'digital brains', just like writing turned the 'oral brains' of our pre-literate ancestors into 'reading brains'. More directly, they also furnish a new political organology that has yet to be a 'appropriated' politically.

As I said, Stiegler has developed an organological theory of human-technology and society interaction, which I will sketch very briefly here. His *general* organology conceives of human evolution and history as technogenic processes involving three organ systems: (1) psychosomatic organs, (2) social organizations and (3) technical organs. Changes in the technical organs always

induce de-functionalizations and re-functionalizations in the psychosomatic and social organs, which – in the course of evolution and later during history – are involved in a constant process of adoption of (or adaptation to) new technologies. The relations between these three organ systems are of a transductive nature, meaning that they only take shape within and out of their relation to each other. What is most important in the current context is that the relations between these three organ systems constitute circuits of desire, of libidinal energy, given that the technical organs and the social organizations give shape to the drives residing in the psychosomatic organs. Now, the technical organs, Stiegler argues, can both intensify the binding of drives into libidinal energy, supporting processes of sublimation and psychic elevation, and cause their decomposition, which leads to desublimation and psychic regression. As such, every organology constitutes a libidinal economy. A *political* organology would consider the conditioning effects of the technical organs, or in other words the technical milieu, on the formation of political affects, most importantly on what Aristotle in his political writings called *philia*, or collective desire, as the conditio sine qua non of all political life.

Now, for Stiegler, the fact that technical organs, i.e., technologies of all sorts but most explicitly so-called mnemo- or psychotechnologies, can both positively and negatively condition libidinal economies, is related to the fact that they are what he calls *pharmaka*, a Greek word that means both poison and medicine. As compensations for the 'original lack' of attributes characteristic of human beings, technical pharmaka can both aid and impede, both support and undermine aspects of those beings. They are both toxifying and curative and as constitutive for the human being's thrown and projective being-in-the-world they have an autonomizing as well as a heteronomizing potential. This pharmacological conception of technologies has affinities with Feenberg's idea of technical ambiguity but is more firmly rooted in an anthropological understanding of what the human life form as a technical life form is. As instruments for political subjectivation, technical pharmaka like DNTs can both support politicization and depoliticization, both emancipation and docilization. They can both elevate and 'dumb down' collective intelligence by supporting either short circuits ('egoistic' circuits of drive) or long circuits of individuation (producing desire and sociality). What DNTs 'are', and here Stiegler is in agreement with Feenberg, depends to a large extent on how they are adopted by individuals and collectives. It may be argued that Dean's and Berardi's diagnoses exclusively emphasize the proliferation of short circuits that exhaust libidinal energy and induce drive-based behavior, thereby acknowledging only the toxic tendency and disregarding or at least neglecting any thought of a therapy that would precisely be based on an emancipatory and autonomizing adoption or appropriation of DNTs that would counter its toxic, heteronomizing tendencies. Stiegler stresses that autonomy exists only in an intimate relation with technical heteronomy, on the condition, that is, that it is adopted intelligently, reflexively and with care, which assumes a practice, that is to say a therapy, a sociotherapy, or in short: a politics. DNT's, as Stiegler persistently argues again and again in all of his writings, can truly function as a technical milieu creating long circuits and supporting a new social autonomy. This presupposes, however, a collective appropriation of that milieu to become an associated milieu instead of a dissociated milieu, which is the dominant situation today. In fact, DNTs are ideally

suited for this, certainly so if compared to the older analog, Hertzian-based information and communication technologies like radio and television. To give some idea of that: DNT's are characterized by delinearity, which allows for demassification and desynchronized access (think of podcasts for instance), by annotability, which allows for tagging and the bottom-up creation of metadata, hypermediality, which means that it can handle all levels of grammatization, from texts to genomic sequences and most importantly bidirectionality, which allows receivers to be senders and vice versa.

Stiegler's assessment of the current impact on the general intellect of DNTs, however, is more close to the views of Dean and Berardi than to those of Hardt and Negri, for instance. And at first sight, he also seems much more 'pessimistic' with regard to the Internet than Feenberg, but this is only apparently so. In fact, the DNTs are for Stiegler nothing less than the way out of the state of deep intoxication of our current mnemotechnical milieu suffers from as a result of its annexation by consumerist and cultural capitalism. It sometimes even looks as if DNTs represent, for him, a kind of Heideggerian saving power, if only we were able to succeed in carrying through what he has referred to once as a 'pharmacological turn' of this *pharmakon*. Concurring with the analyses of Dean and Berardi and fundamentally disagreeing with the views of Hardt and Negri, Stiegler contends that instead of tendentially autonomizing and empowering the multitude because of the increasing independence of the general intellect from capitalist control, in reality the general intellect appears to be the object of an intense process of proletarianization today that seems to disempower it and rob it of its autonomy, producing a regression of the collective intelligence of the general intellect that he refers to as a state of 'systemic stupidity'. Instead of fixed capital migrating to living labor, thereby granting it more autonomy as Hardt and Negri claim, Stiegler states that through generalized automation as exteriorization and short-circuiting of psychic and cognitive functions in the DNT, we cannot but admit that the multitude's collective intelligence is becoming increasingly proletarianized. Instead of a growing commonization and autonomization of the multitude, what seems to be the rule nowadays is cognitive proletarianization and psychic heteronomization of the singularities that make up the multitude. So-called cognitive capitalism in fact destroys cognition, forcing workers to adapt their cognitive apparatus and capacities to a digital technical milieu that imposes the imperatives of profit and competition. It is true that DNTs enable the 'cooperation between brains' (Lazzarato) but so far they have predominantly served capital in controlling this cooperation and capturing its fruits.

However, this is a pharmacological situation and as such it is anything but hopeless. While still functioning largely as technologies of capture and control (as analyzed by Dean and Berardi), at the same time the DNTs are gradually beginning to be transformed into the conditions for the emergence of a wholly new associated milieu than can function as the support of a therapeutic countermovement that can fight the proletarianizing tendency. Phenomena like Free Software, peer-to-peer, Wikipedia, Wikileaks, Anonymous, and many other commons-based collaborative projects can be understood as being the first movements in that direction, movements that are characterized by Stiegler in terms of deproletarianization. The hackers and their anti-protestant –

although not necessarily anti-capitalist – ethics of voluntary cooperation, sharing, passion and care with respect to digital work (as expounded by Pekka Himanen in his well-known bestseller *The Hacker Ethic*) are the exemplary heroes of this countermovement.

What is lacking in Stiegler, however, is a class based analysis of this pharmacological situation in terms of an account of the possibilities for recomposition of the general intellect. Such an account should be developed, I claim, because it seems unrealistic if not totally illusory, as Stiegler does in his writings, to put too much trust in the initiative of governments or representatives of today's public institutions, to promote and support the emergence of alternative modes of production and collaboration beyond the consumerist model and that can break with the current hegemony. In an all-out class war of capital and the state against the laboring multitudes, which is currently waged with an unprecedented brutality and cynicism, calling for a public power to positively intervene in the situation and prescribe a sociotherapy in terms of a positive pharmacology is truly beyond naivety. Such a therapy should and can only emerge from 'below', from the multitude itself, or more realistically from its dissident and least proletarianized factions.

Unfortunately, I did not have the time to embark on a compositionalist pharmacological analysis of today's DNTs. And for that reason, I will necessarily have to limit myself here to proposing a few questions that could guide such an analysis. It is clear that DNTs by themselves, left within the confines of the market economy, will never bring about true social autonomy but will only enforce the toxic, desublimatory, heteronomizing tendency that Dean, Berardi and also Stiegler rightly diagnose. What is needed is a political project of adoption in terms of a therapy and this 'therapy' must intervene at a systemic level and aim for a new organization of society, no less! A society that would be truly *intelligent* and *autonomous* in the ideal sense that it, as André Gorz has put it nicely in one of his books, paraphrasing a famous dictum by Karl Marx, should create the conditions 'in which the full development of each person's ability is everyone's aim' (109) and in which production would serve human development instead of human development serving the production of surplus value (113). In light of the critical diagnoses offered by Dean, Berardi and Stiegler, the following questions could lead a pharmacological analysis of class composition in the current situation: how can we employ the digital *pharmakon* itself against the hegemonic tendencies it now supports? How can DNTs be appropriated or maybe newly designed so that they can be used to struggle against the constant acceleration of online, and as a consequence also of offline life, that they now everywhere support? How can the digital pharmaka be changed so as to slow down life and shape the conditions and the time for reflection, critique and a more free and autonomous disposition of our individual and collective time? How can the digital pharmaka be changed so as to foster community and solidarity instead of atomizing us? How can we change the underlying algorithms – the technical codes so to speak – that constitute the technofinancial automatisms Berardi writes about? How can the digital pharmaka be appropriated or redesigned so as to become the supportive technologies of what Stiegler has called an 'otium of the people', i.e., as technologies of the self and others, of care of the self and care of the other in the sense of Michel Foucault, instead of promoting competition and leading to an increasing automation,

heteronomization and carelessness? How can these *pharmaka* be creatively re-appropriated to struggle against the disaffection and libidinal exhaustion and how can they become the supports of new modes of critical and 'deep' attention? How can they become supports of processes of commonization and the formation of 'collective desire for the collective', instead of increasing individualization? How can they reconnect subjects with the social body they are part of yet hardly experience anymore?

All these questions, which need to be elaborated, suppose that we should not only learn the 'art of living with ICT', as the title of this symposium proposes, but that we should also learn to fight, to produce, to commonize and to live together with ICT. 'Living with ICT' in my ears sounded a bit too sad actually, like the necessity of having to cope with something, of having to get along with it, of having to adapt ourselves to it, whereas instead we should adapt those technologies to what we, as socio-technical creatures, collectively decide to be a life *worth* living. That is the ultimate question, I guess, with respect to the question of the art of 'living with ICTs'.

Thank you very much for your attention and my apologies for somewhat exceeding my time limit!