Chapter 9
An Unseasonable Thinker: How Ellul Engages Cybercultural Criticism

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> *I do not know what meaning classical scholarship may have for our time except in its being 'unseasonable,' that is, contrary to our time, and yet with an influence on it for the benefit, it may be hoped, of a future time.*
>
> Frederich Nietzsche
> *On the Use and Abuse of History for Life*

> *The real issue is that humans are no longer in charge. We need to dismantle the machines themselves. This can be done in a very peaceful manner. Hack into their system, publish their crimes through Wikileaks-type initiatives and then delete their real-time trading killing networks for good.*
>
> Geert Lovink and Franco Berardi
> *A Call To the Army of Love and To the Army of Software*

1 Ellul in Brief

Jacques Ellul is a scholar difficult to classify. His more than 40 books and hundreds of articles have contributed to theology, sociology, history, and economics. Today in the era of the Internet, global communications, and the dominance of technology, Ellul is often dismissed as a techno-catastrophist or misleading heretic. Also labeled a Christian "neo-luddite," Ellul did indeed produce an analysis of contemporary technology as potentially leading to catastrophe – and few people are pleased by

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such criticism, especially when the economy appears to grow without limits and there are more and more goods for consumption. In a "low cost" culture technological criticism is not an easy sell. Until recently we lived in a world of the *Apocalypse Postponed* (Eco 1994).

Technological enthusiasm obscures the relevance of Ellul's thought. Ellul has contributed, along with others such as Lewis Mumford and Ivan Illich, to a current of criticism that has been a strong if hidden influence on others such as Paul Virilio and Jean Baudrillard. "Certainly there are echoes of Ellul's technique, of the negative effects" on "the organization of social life and space from the First World War to the present day" (Armitage 2011: 5); and despite his Catholic Christianity, Virilio himself sees his thinking as closer to Ellul than to, for example, Gabriel Marcel (Armitage 2000). A "postmodern" appreciation of Ellul's thinking deserves consideration.[1]

Ellul was neither luddite nor technophobe. He simply emphasized the ambivalent nature of the technological phenomenon. Given that the recent financial crisis may be undermining an apocalyptic postponing mentality, perhaps Ellul's criticism can appear in a more favorable light. The European way of life, from human rights to the welfare state and social protections, seem to be at risk. Certainly the myth of progress is being seriously questioned and new ideas are needed to reinvent ourselves. According to Naomi Klein (2008) we live in the midst of a capitalism that is characterized by its commitment to a "shock doctrine." That is, it promulgates a series of crisis by which excessive speculative profits can be accumulated. Such disaster capitalism is spreading, with its shock characteristics facilitated by technologies that are out of control.[2] Yet even after Chernobyl and Fukushima, criticisms of technology are seldom acknowledged and may still be ignored.

Nevertheless, for the first time we hear that the lives of future generations could be worse than previous ones. Global financial meltdown, high unemployment rates, and environmental degradation indicate something about how the economy and the technology that empowers our financial milieu are counter-productive for our lives – or that they are mostly benefiting only a few, and that even this elite is shrinking. According to the Occupy Wall Street movement, 1 % of the US population receives three quarters of the total income increases of the country

[1]Thanks to STS groups in Spain and through the involvement of scholars such as Carl Mitcham and Langdon Winner, Ellul has become part of the Spanish repertoire on philosophy of technology. Indeed, Ellul has been extensively translated into Spanish. Ten books (including *The Technological System*) and some essays of have been translated as recently as 2011. See Florensa Giménez (2010), Sanchís Serra (2009, 2011).

[2]Computer scientists, mathematicians, engineers, even linguists, are now part of the financial casino. And they along with technologists are responsible for the present crisis. As Leinweber says: "The Hall of Shame for those guilty of incompetent engineering features collapsing bridges, flaming dirigibles, exploding spacecraft, and melting reactors. We can add a new wing for overly complex [financial] derivatives, modelled in exquisite detail by myopic nerds with Ph.D.'s who got lost in the ever more complex simulations but ignored the basic principles, and their lavishly paid bosses who ignored the warnings from the best of them so they could be even more lavishly paid" (Leinweber 2009).

(Luhby 2011). Ellul considered himself as a resistor and frequently repeated the need to stand against the general state of affairs. For Ellul, it was important to say that the actual combination of politics, economy, and technology are creating more harm than benefit.

Another relevant issue is that for Ellul an intellectual position is not simply a "detached point of view" for describing how things are. Ellul understood intellectual activity as a way to warn, denounce, and criticize. These elements are often absent from scholarly papers today. What are the consequences? The answer is revealed in one of the most upsetting documentaries on the present economic crisis, the Oscar-winning *Inside Job* (2010), in interviews with economists from Harvard, Berkeley, and other premier universities. These economist scholars demonstrate how ethics, social compromise, and honesty have disappeared or been ignored. Economists in academia have supported an intense propaganda favoring financial networked capitalism and deregulated free market policies. Are such attitudes not also characteristic of social sciences and humanistic discourses on technology? Does the scholarly study of technology not too often support the current, deleterious state of affairs? Have we scholars simply adopted positions that would allow us to get funds and recognition? Detachment was certainly not the case in Ellul's thinking. Radical criticism of technology may be one reason why Ellul – along with Illich, Mitcham, Winner, and others – should be considered "unseasonable thinkers" – free spirits who go against the *Zeitgeist*, trying to identify ways forward to a better life in the contemporary world.

Unseasonable thinkers are not detached from questions and problems in contemporary society. Just the opposite: They criticize general assumptions such as progress, growth, innovation, and the like. They expose and confront general myths. Practical answers for what to do or counter-ideologies may not be available. But while the absence of answers can be dissatisfying, problems can still be sharply presented. What is interesting about Ellul in this regard is how others who may not have read his work nevertheless echo his ideas. Ellul was touching central concerns in contemporary society. A further review of some of these ideas and how they engage with cyberculture can enhance appreciation of Ellul as well as illuminate critical discourse regarding information and computer technology. The focus will be on three themes – the sacred, speed, and work – all of which play prominent roles in cyberculture discourse.

2 Technology and the Sacred

According to Ellul, when people assert that technology "is an instrument of freedom, or the means to ascent to historical destiny, or the execution of a divine vocation" the result is the "glorifying and sanctifying of Technique." Technology ceases to be

> an ensemble of material elements, [and becomes instead] that which gives meaning and value to life, allowing man not only to live but to live well. Technique is intangible and

> unattackable precisely because everything is subject and sub-ordinate to it. Man unconsciously invests with a holy prestige that against which he is unable to prevail (Ellul 1962: 410).

Decades before others, Ellul identified technology as the new sacred, a theory that has since been reiterated by others (Bloom 1997; Wertheimer 1999; Noble 1999; Alonso and Arzoz 2003). Computer development and computer mediated culture – along with a host of other leading-edge technologies such as biotechnology and nanotechnology – have been repeatedly valorized by their proponents with a rhetoric that is religious if not superstitious. In the last 20 years of the Internet, bizarre appeals have been made to digital networks as exhibiting omnipresence, the power to save humans from pending disasters, and to raise them to a transcendent ontological status.

Anticipating such transcendence, the priest-scientist Teilhard de Chardin, in affirmative speculations developed during the same period as Ellul's social criticism, proposed that technological progress would bring humanity to another level of spirituality (Teilhard de Chardin 1959) – a vision echoed in the "omega point" allegedly discovered by Frank Tipler (1997) and the "spiritual machines" of Ray Kurzweil (2000). In these visions the body, nerves, psycho-social conditions, and other features of human presence in the material world appear as obstacles to achieving a promised transformation. Sacrificing the body to the mind is the paradoxical requirement for receiving the blessings of a technological utopia and the eschatological moment. Although referring originally to how God will bring about the end of the world and what he will preserve in a post-end state, eschatology has come through science fiction to reference a world-end immanent in technological history as it moves toward the singularity in which humans will be overcome and saved by their machines – see, e.g., Stross (2003), Stephenson (2000), and Egan (1994).

To some extent modern science involved this idea from the beginning. According to Francis Bacon, science and its associated technologies are liberating forces able to defeat nature and place humanity on a new footing in the world. This ideology translates into the present time when scientists (Tipler 1997), engineers (Kurzweil 2000), intellectuals (Lèvy 1994), and artists (Stelarc 2011) advocate for a cyber-spirituality that sees humanity returning to Paradise by means of miraculous technoscientific achievements. These ostensibly new visions incorporate from the hermetic tradition such myths as those of the new body and immortality and, above all, the creation of a virtual and artificial god. This ersatz religion, which is closely associated with information technology, has been termed "digitalism" (Alonso and Arzoz 2003) and displays affinities with ancient Gnosticism. Indeed, digitalism is a sort of "techno-hermetism" that incorporates a mixture of crude rationalism, esoteric religious traditionalism, and science fiction in order to map out techno-epistemic pathways to revelation and transcendence. Together with the mystifications of globalization, digitalism further promotes cultural uniformity and a pseudo-religious aristocracy. Cyber-intellectual missionaries, novelists, science fiction filmmakers, Internet cyber-sects, enthusiastic scientific journalists, and a growing number of contributing scholars celebrate transformations of human experience in terms of limitless scientific abuse. The movie *Gattaca* (1997) skillfully explores this abuse related to biotechnology. Extropians, post- and

trans-humanists, Raelism and similar cults place faith in technology as a sacred means to achieve a transcendent end. Ellul's analysis of propaganda (Ellul 1973) could fruitfully be applied to much cyberculture hype.

Ellul's postulate that technology has become a kind of sacred is thus alive and well in cyberspace. For many cyber-intellectuals, virtual realities and online social environments are magical realms where intelligence alone is present and it is possible to speak about a collective entity called the mind-hive (Lèvy 1994). Cyberspace replaces the corporeal body with networks and processors. Cyber-believers imagine computers as the ultimate destiny of humans. Marvin Minsky, a father of artificial intelligence, once described the human brain as a "meat computer," reversing the metaphor of the "mechanical brain." In 1970 he even made the now-dated prediction that

> In three to eight years we will have a machine with the general intelligence of an average human being. I mean a machine that will be able to read Shakespeare, grease a car, play office politics, tell a joke, have a fight. At that point, the machine will begin to educate itself with fantastic speed. In a few months it will be at genius level, and a few months after that its powers will be incalculable (quoted in Stork 1996: 19).

Yet as Ellul would remind us, the people using computers are made of bones and flesh and blood. Cognitive workers are more than intellect: Cognitarians (to use a term from Berardi 2005) are not just nerves but somatic creatures with anatomies and physiologies that are repeatedly stressed by the continuous non-act of staring at screens. And collective intelligence cannot solve the problems of the social existence of those bodies that produce such intelligence.

3 Technological Speed

Discourse about the speed of technological change divides into concerns about how to accelerate it (we need more innovation) or how to limit it (everything is going too fast). For Ellul, limitation is the more crucial issue because we are physical, biological, and psychological creatures for whom speed is often disruptive. Many people readily agree that experiences of speed can distort and become sources of suffering. Individuals have increasingly been forced to adapt to an accelerated pace of life and social expectations; time seems to be one of the scarcest resources in post-modern societies.

Analyzing speed has been one of the classic paths to understanding and criticizing technological development. Intuitively, most people consider the technological pace as something troubling or even as something wrong. Illich's conviviality (Illich 1974) and Baudrillard's escape velocity (Baudrillard 1988) are different approaches to this problem. Past a certain point, speed is iatrogenic, as Illich argued. Virilio is perhaps the most well-known author here, beginning with his concept of *dromology* about the relationship of speed to politics (Virilio 1977). As Ellul shows, the effort required for human adaptation to breakneck change is an important issue related to others such

as programmed obsolescence, increased consumption, sudden environmental changes, etc. Discussions about speed are especially difficult because they demand a suspension of the present trajectory and a rethinking of where we are going. To stop for a moment and reflect is the antithesis of speed.

It is difficult to deny that speed has become a crucial commodity. One of the most expensive office places to rent is close to the Wall Street stock market in New York City. Wall Street is the core for global financial activity. What is surprising, though, is that the price is not for individuals but for machines. In fact new technologies allow people to invest and operate in the Stock Market from almost any place in the world. But the closer the machine is connected to Wall Street the quicker the response time. According to technicians, time saved is about a millisecond less than if you have a machine connected in Madrid or Lisbon. This speed means advantage and money. But it also means that no human can compete with the speed of machines, and often no one can predict or foresee what is going to happen. This exemplifies, among other facts, the role of speed in our technological society. What counts is not the intelligence of a human operator dealing, reflecting, and making decisions. What counts is the power of a machine reacting as quickly as possible according to built-in heuristics. When something goes wrong the result can be as expensive as billions of dollars lost in 20 min, as happened on Wall Street on May 6, 2010 (Gilles 2010). Financial regulators are now forced to deal with what is called "flash trading".[3] The time able to operate in flash trading ranges from 300 to 500 ms. No human operators can control these operations; machines take command of such financial activities.

In cyber-organized society, computer technology becomes pervasive and invades all human life, as Franco Berardi (2009) points out. In this system, the question of speed becomes an ever bigger problem, as Ellul forecasted. According to Berardi:

> Semio-capital puts neuro-psychic energies to work, submitting them to mechanistic speed, compelling cognitive activity to follow the rhythm of networked productivity. As a result, the emotional sphere linked with cognition is stressed to its limit. Cyberspace overloads cybertime, because cyberspace is an unbounded sphere whose speed can accelerate without limits, while cybertime (the organic time of attention, memory, imagination) cannot be sped up beyond a certain point – or it cracks. And it is actually cracking, collapsing under the stress of hyper-productivity. An epidemic of panic and depression is now spreading throughout the circuits of the social brain. The current crisis in the global economy has much to do with this nervous breakdown. Marx spoke of overproduction, meaning the excess of available goods that could not be absorbed by the social market. But today it is the social brain that is assaulted by an overwhelming supply of attention-demanding goods. The social factory has become the factory of unhappiness: the assembly line of networked production is directly exploiting the emotional energy of the cognitive class (Berardi 2009: 276).

[3] *Flash trading* is a "controversial computerized trading practice offered by some stock exchanges. Flash trading uses highly sophisticated high-speed computer technology to allow traders to view orders from other market participants fractions of a second before others in the marketplace. This gives flash traders the advantage of being able to gauge supply and demand and recognize movements in market sentiment before other traders." http://www.investopedia.com/terms/f/flash-trading.asp#ixzz1fwpbTuky. Accessed 10 December 2011.

Concepts that articulate Berardi's idea are automation, speed, acceleration and general intellect. High technology workers have become the new "proletariat" but in a more profound sense than industrial labor, because their alienation is more pronounced. Workers in the assembly line were the first proletariat in history and now they have moved into underdeveloped countries where collective bargaining organizations have little power because of the political situations. In Western society labor is composed mainly of high-tech intellectual laborers – what George Orwell called "brain-workers"[4] – connected into networks in different categories such as techno-workers, networkers, and knowledge workers. The result is a cognitive capitalism that, in the last analysis, is the supreme way to alienate workers from their productivity.

Hackers and science fiction writers often distinguish among hardware, software, and wetware. Hardware are the machines, software the programs of machine operation. Wetware refers to the human programmer, administrator, or IT manager who operates with hardware and software. The logic of production is then to extract knowledge from humans and to do so at a low cost. There is a constellation of names for this cognitive capitalism: weightless economy, net-economy, new economy, information economy, digital economy, e-economy, knowledge value revolution or knowledge-based economy. This new-economy discourse coincides with notions that the Internet and telecommunications have become the most important realms for leisure and entertainment. Culture becomes a techno-logical realm, as does leisure (Aiestaran 2010).

This parallelism points toward how work and leisure are more and more in the same place so as to become less distinguishable. Step by step, the distinction between what is work time and free time begins to disappear. Is it possible to think that the mere use of a computer, no matter what the purpose, becomes a subtle way of working? Everybody knows that using a search engine such as Google becomes an added value for the software company. Users refine and add value to Google's system each time they use it, increasing the economic value to the company. The same happens with social networks such as Facebook or Linkedin; the value for these companies is a result of the time users spend with them. Those e-social networks are powerful devices to extract and sell information provided by people. What these social e-networks do is to transform normal conversations, and the banality of everyday life, into new business opportunities. Advertising has found another way to intrude into life through the use of "customized" ads using the knowledge obtained from users via ubiquitous data mining.

Even within what we can consider "traditional jobs" – jobs that have a regular wage and time-at-work – we see features that redefine them in cognitive capitalist terms: permanent and never ending training (also labelled as continuing education),

[4] "We pigs are brainworkers. The whole management and organization of this farm depend on us. Day and night we are watching over your welfare. It is for your sake that we drink that milk and eat those apples. Do you know what would happen if we pigs failed in our duty? Jones would come back! Yes, Jones would come back! 'Surely, comrades,' cried Squealer almost pleadingly, skipping from side to side and whisking his tail, 'surely there is no one among you who wants to see Jones come back?'" (Orwell 1945: 14)

flexibility, the threat of de-localization, flexible working time with tele-work, permanent staff restructuring, and changing of posts. All these elements have transformed jobs into a scarce resource. Speed becomes adaptation – "flexibility," in the new economic jargon. Changes are also occurring at a quick pace in universities.

> Universities are no longer a quiet place to teach, make academic work with a slow rhythm and contemplate the universe as it happened centuries ago. Now universities are powerful, complex, demanding and competitive business that requires continuous and large scale investments (Agencia Española de la Calidad, ANECA 2009).

Such business-oriented, speed management jargon has penetrated everywhere. This is another use of propaganda, based in globalization, in which the university is touted as a site of efficiency, adaptation, competitiveness, and so on. It is the triumph of managerialism over education. Education is one of the promising spaces to expand business opportunities, hence the rise of for-profit universities that promise fast degrees. Speed becomes an instant readaptation to a changing environment, a reality that is difficult to foresee.

Automation, automatic response, reflexes instead of reflection: This is one of the issues Ellul thought about. In a technological system, immediate response is the appropriate action. The system works as a whole and decisions are instantaneous. In fact, one of the effects of these automatizations has to do with the ability to focus on tasks, messages, and information. Cyber-intellectual labor becomes a hyper-activity dealing with information – receiving and producing, recombining and adapting, closing the circle of information. The abstraction affects labor; as Ellul would say, workers themselves vanish. This abstraction is what allows people to use machines such as computers in so many different ways. Doctors, engineers, architects, media producers, writers, and so on all base their work on the same machine, but with completely different purposes. What they have in common is to sell segments of their time. Those segments are reunited and recombined to produce something new. It is as if people, the workers themselves, are becoming redundant. What has value is the fragment of time the worker sells as the increasing necessity of nonstop connection illustrates. Mobile phones, mobile Internet connectors and other devices facilitate the need to be constantly on-line and constantly available to sell one's time. The workday begins with the first access to e-mail or mobile call. This is why the workplace, schedules, and labor time all lose their meaning.

Franco Berardi articulates a paradox: There are more and more unemployed people but personal time devoted to labor grows with each generation. According to Berardi the calculus of work hours in 1935 was 95,000 h in a lifetime. In 1972 it was 40,000; but in the 2000s we are approaching 100,000 h. Recent proposals in Europe to move the retirement age to 67 help to further illuminate this point.

Informational hyper-stimulus leads to the identification of another scarce resource: Even attention can be treated as another economic factor. Attention-deficit-disorder is a growing mental condition among young people, perhaps owing to this technological situation. Approximately 9.5 % or 5.4 million children 4–17 years of age have been diagnosed with ADHD as of 2007 in the United States. This may illustrate how:

> The colonization of time has been a fundamental issue in the modern history of capitalist development: the anthropological mutation that capitalism produced in the human mind

> and in daily life has, above all, transformed the perception of time. But we are now leaping into the unknown – digital technologies have enabled absolute acceleration, and the short-circuiting of attention time. As info-workers are exposed to a growing mass of stimuli that cannot be dealt with according to the intensive modalities of pleasure and knowledge, acceleration leads to an impoverishment of experience. More information, less meaning. More information, less pleasure (Berardi 2010).

4 Computers and Work

Thanks to automation, the nature of labor and work has fundamentally changed, as has already been suggested. But more can be said. As Italian Marxist Berardi argues, in a system for exchanging information, the format of exchange is crucial, as a selective or marginalizing element. If someone tries to transmit signals with a different format than what is used to program the network, the signals become meaningless and therefore inefficient. On one level, the Internet is a medium for erasing signs of individuality or to de-personalize – while, on another, on-line discourse affirms individuality: YouTube, Facebook, Myspace, et al. (One paramount witness to this you-philosophy was the *Time* magazine declaration of the "Person of the Year" for 2006 as "You – Yes, You!")

What is the function of this paradoxical new you-ness in cyberspace? According to Ellul in the *Technological System*:

> Man cannot live and work in a technological society unless he receives a certain number of complementary satisfactions allowing him to overcome the drawbacks. Spare-time activities, distractions, their organization, are not superfluous; they cannot be done away with for the sake of something more useful; they do not represent a true rise in the standard of living. They are thoroughly indispensable in making up for the uninteresting work, the deculturation caused by specialization, the nervous tension due to the excessive speed of all operations, the acceleration of progress requiring difficult readjustment. All these things, which are brought on by technological development, can be tolerated only if man finds a new level of compensations (Ellul 1980: 62).

Is you-ness a kind of ersatz compensation offered to balance a pervasive laboring that invades every aspect of life?

Technology in general makes work more productive or more efficient, to evoke an economic mantra. Wealth accumulates because different technologies either make the usual resources more productive or they create new avenues for the extracting of value. Behind the idea of privatization is the drive to open up new opportunities for business (Gates et al. 1995). At the same time, financial benefit is not the only motivator for work. For many engineers, programmers, and media artists the main purpose is to produce exciting new artifacts or to put imagination in motion. This motivation to do good work is associated with the beginning of the Internet boom, when the idea of being brilliant as well as making money were both entrepreneurial incentives. The "old days" were filled with amazing stories about how a bright idea could lead to success. Remember Yahoo, Netscape, and many other start-ups based at once in imagination and financial risk taking.

But these dreams ended abruptly. Interestingly enough, the idea that cognitarians should rebel against the economic system was repeated in different places. Pekka Himanen's *The Hacker Ethic and the Spirit of the Information Age* (2001), for instance, initiated movement toward a better understanding of labor, work, activism, and possibilities open not only by technologies but also through new ways to understand the politics of technology. Free software and free knowledge organizing tried to offer a counter-account of computer technology. The effort at first was not to try to find a *Temporarily Autonomous Zone*, as proposed by Hakim Bey (2003), but to use technology to isolate certain points. The effort focused on recruiting engineers, programmers, and computer scientists to a movement in favor of liberating or redirecting the aims of technological development. Hackers could form a new social class because in information technology they are those who offer tools and means to keep up with the state of affairs in which we all live. Two basic classes were distinguished: those who produced information and those who wanted to own or control it. Hackers wanted to make all information freely available to everyone so that social relations could be based on such foundations as confidence, collaboration, reputation, and a gift economy.

In 2004 a famous manifesto, echoing Marx, Wark proclaimed:

> Hackers create the possibility of new things entering the world. Not always great things, or even good things, but new things. In art, in science, in philosophy and culture, in any production of knowledge where data can be gathered, where information can be extracted from it, and where in that information new possibilities for the world produced, there are hackers hacking the new out of the old. And yet while we create these new worlds, we do not possess them. That which we create is mortgaged to others, and to the interests of others, to states and corporations who control the means for making worlds we alone discover. We do not own what we produce – it owns us (Wark 2004: 4).

But as Berardi, in contrast, pointed out,

> with the dotcom crash, cognitive labor has separated itself from capital. Digital artisans, who felt like entrepreneurs of their own labor during the 1990s, are slowly realizing that they have been deceived, expropriated, and this will create the conditions for a new consciousness of cognitive workers. The latter will realize that despite having all the productive power, they have been expropriated of its fruits by a minority of ignorant speculators who are only good at handling the legal and financial aspects of the productive process. The unproductive section of the virtual class, the lawyers and the accountants, appropriate the cognitive surplus value of physicists and engineers, of chemists, writers and media operators. But they can detach themselves from the juridical and financial castle of semio-capitalism, and build a direct relation with society, with the users: then maybe the process of the autonomous self-organization of cognitive labor will begin. This process is already under way, as the experiences of media activism and the creation of networks of solidarity from migrant labor show (Berardi 2009: 80).

The disillusion of many was presented in an obscure movie, *August* (2009), which portrayed the dot.com crash. A young computer engineer becomes a successful CEO but only for 2 years, the time it takes the Internet bubble to burst. Asked to give a talk before his colleagues, he claims that what drove computer workers to start all those little companies with venture capital funds was not just the prospect of economic success but the apparently endless possibilities that computer technology opened up. The illusion of making something real, the ability of using the

imagination to invent, innovate, and create something completely new was the strongest motive for work, much more than money. But he did not realize that sooner or later there would be a takeover by the people with the money, the so-called "market."

All discourse about the liberating power of the Internet devolves into a new kind of business. Disillusion with this state of affairs – with echoes of Ellul's criticisms – can be found even among high-tech experts. Berardi with Geert Lovink, a member of the Institute of Network Culture, claim:

> Bankers and investors are not the real decision makers, they are participants in an economy of gestural confusion. The real process of predatory power has become automated. The transfer of resources and wealth from those who produce to those who do nothing except oversee the abstract patterns of financial transactions is embedded in the machine, in the software that governs the machine. Forget about governments and party politics. Those puppets who pretend to be leaders are talking nonsense. The paternalistic options they offer around 'austerity measures' underscore a rampant cynicism internal to party politics: they all know they lost the power to model finance capitalism years ago. Needless to say, the political class [is] anxious to perform the act of control and sacrifice social resources of the future in the form of budget cuts in order to 'satisfy the markets.' Stop listening to them, stop voting for them, stop hoping and cursing them. They are just pimps, and politics is dead (Berardi and Lovink 2011).

It is not difficult to appreciate the autonomy of the machine, of the technological system, stated here.

5 Conclusion: Is There Any Hope?

Issues such as global climate change, environmental pollution, financial meltdowns, and other challenges threaten a precarious level of wellbeing in post-industrial societies. Insofar as the present is dominated by a kind of techno-capitalism it is difficult to imagine alternatives. So many voices are simply calling for more of the same policies that have prevailed in public discourse for the last 20 years: more flexibility, greater liberalization, increased privatization, enhanced productivity, and so on. But surely we cannot simply accept things as they are – a situation in which Ellul provides a model for engaged, scholarly response.

Indeed, decades ago Ellul analyzed how money – the making of which is the defining goal of technocapitalism – is an abstraction that crowds out ethical reflection. The contemporary version of the work ethic (i.e., that work is virtuous insofar as it produces monetary wealth) subordinates being to having. Counter ways of life require us to de-emphasize money, give economic activity a smaller role, slow technological progress, and bring the personal and spiritual life back to the forefront of consideration. Under such changed circumstances, money would no longer cause global, collective or social problems. It would no longer be necessary to take sides on economic theory or to join a system (Ellul 1984).

Indeed, there now exist multiple voices that extend the spirit of Ellul by calling for de-growth as a realistic option to avoid disaster. The idea that growth is killing

the well being of the world – not just in ecological terms but in economic ones as well – is beginning to be taken seriously. De-growth theoreticians (Latouche 2004) argue that we should reject the mantra of liberal economy that sees annual increases of in GNP as the only way to happiness and to invest instead in protecting what has become one of the most scarce resources: calm enjoyment of the ever present richness of the natural world and the practices of friendship. We could then start talking about "a-growthism," as in "a-theism." After all, rejecting the current economic orthodoxy means abandoning a faith system, a religion (Nelson 2010).

To this end we need doggedly and rigorously to deconstruct the phenomenon of development – a process initiated decades ago by Wolfgang Sachs and associates (1991) but that desperately needs continued. The term "development" has been redefined and qualified so much that it has become meaningless. Yet despite its failings, this magical word continues to command devotion across the political spectrum. Contributing to a necessary reassessment of development idolatry are contemporary hacker communities, free knowledge and peer-to-peer groups, as well as activists on the commons, all of whom promote the reusing, recycling, and saving of resources. Members of these groups not naïve; they know the temptations of technology and how difficult is to enact true freedom in cyberspace. But Ellul himself offers some hope:

> *The* [technological] *system exists in all its rigor, but it exists within the society, living in and off the society and grafted upon it. There is a duality here exactly as there is between nature and the machine. The machine works because of natural products, but it does not transform nature into a machine. Society too is a 'natural product.' At a certain level, culture and nature overlap, forming society, in a totality that becomes a nature for man. And into this complex comes a foreign body, intrusive and irreplaceable: the technological system. It does not turn society into a machine* (Ellul 1980: 18, italics in the original).

Insofar as this is true there is a possibility of contestation because society is a strange body that short circuits technology. These short circuits are what hackers and cyber-activists are looking for because it represents the possibility of freedom.

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