

The Soul at Work

Digital labor and abstraction

Today, what does it mean to work? As a general tendency, work is performed according to the same physical patterns: we all sit in front of a screen and move our fingers across a keyboard. We type.

On the one hand, labor has become much more uniform from a physical and ergonomic point of view, but on the other it is becoming much more differentiated and specialized with respect to the contents that it develops. Architects, travel agents, software developers and attorneys share the same physical gestures, but they could never exchange jobs since each and every one of them develops a specific and local ability which cannot be transmitted to those who do not share the same curricular preparation and are not familiar with the same complex cognitive contents.

When labor had a substantially interchangeable and depersonalized character it was perceived as something foreign. It was mechanically imposed by a hierarchy, and represented an assigned task that was performed only in exchange for wages. The definition of dependent work and wage-earning was adequate for this kind of social activity, which consisted in the selling of one's time.

Digital technologies open a completely new perspective for labor. First of all they transform the relation between conceiving and executing, and therefore the relation between the intellectual contents of labor and its manual execution. Manual labor is generally executed by automatically programmed machinery, while innovative labor, the one that effectively produces value, is mental labor. The materials to be transformed are simulated by digital sequences. Productive labor (labor producing value) consists in enacting simulations later transferred to actual matter by computerized machines.

The content of labor becomes mental, while at the same time the limits of productive labor become uncertain. The notion of productivity itself becomes undefined: the relation between time and quantity of produced value is difficult to determine, since for a cognitive worker every hour is not the same from the standpoint of produced value.

The notion of abstraction and of abstract labor needs to be redefined. What does "abstract labor" mean in Marx's language? It means the distribution of value-producing time regardless of its quality, with no relation to the specific and concrete utility that the produced objects might have. Industrial labor was generally abstract since its specific quality and concrete utility was completely irrelevant compared to its function of economic valorization. Can we say that this abstract reduction is still active in the era of info-production? In a certain sense, yes, we can, and we can also say that this tendency is pushed to its extremes, since labor has lost any residual materiality and concreteness, and the productive activity only exerts its powers on what is left: symbolic abstractions, bytes and digits, the different information elaborated by productive activity. We can say that the digitalization of the labor process has made any labor the same from an ergonomic and physical point of

view since we all do the same thing: we sit in front of a screen and we type on a keyboard. Our activity is later transformed by a concatenation of machines into an architectural project, a television script, a surgical operation, the moving of forty metal boxes or a restaurants' provisioning.

As we have already said, from a physical standpoint, there is no difference between the labor performance of a travel agent, a technician working for an oil company or a writer of detective stories.

But we can also say the opposite. Labor has become part of a mental process, an elaboration of signs rich with knowledge. It has become much more specific, much more specialized: attorneys and architects, computer technicians and mall vendors all sit in front of the same screen and type on the same keyboards: still, they could never trade places. The content of their elaborating activities is completely different and cannot be easily transmitted.

On the other hand, also from a physical point of view, chemical, metal and mechanical workers do completely different jobs, but it takes only a few days for a metal or mechanical worker to acquire the operative knowledge necessary to do the job of a worker in the chemical industry and vice versa. The more industrial labor is simplified, the more it becomes interchangeable.

Human terminals perform the same physical gestures in front of computers and they all connect to the universal machine of elaboration and communication: yet the more their jobs are physically simplified, the less interchangeable their knowledge, abilities and performance. Digital labor manipulates absolute abstract signs, but its recombining function is more specific the more personalized it gets, therefore ever less interchangeable. Consequently, *high tech* workers tend to consider labor as the most essential part in their lives, the most specific and personalized.

This is exactly the opposite of what happened with the industrial worker, for whom eight hours of wage labor were a sort of temporary death from which s/he could wake up only after the alarm bells rang, announcing the end of the working day.

Enterprise and desire

In its humanistic Renaissance meaning the word enterprise refers to an activity aimed at giving the world a human form. The "enterprise" of the humanistic artist enterprise is the sign of humanity's independence from fate and even divine will. For Machiavelli, enterprise is like politics in that it emancipates itself from fortune and realizes the republic, a space where different human wills test and compare their cunning and their ability to create.

In its capitalistic meaning, the word enterprise acquires new nuances, although it never loses its sense of free and constructive action. These new nuances all pertain to the opposition of labor and enterprise. Enterprise means invention and free will. Labor is repetition and executing action. Enterprise is an investment of capital generating new capital, thanks to the valorization that labor makes possible. Labor is a wage-earning service that valorizes capital but devalues workers. What is left today of the opposition between workers and enterprise, and how is the perception of the very notion of enterprise changing in the social imagination?

Enterprise and labor are less opposed in the social perception and in the cognitive workers' consciousness, that is to say the consciousness of those performing the highest level of productive labor and valorization and who represent the general tendency of labor's social processes. Those active in jobs with a high cognitive level, therefore those who could rarely trade their places, do not oppose

their labor to the creation implied by the word enterprise: on the contrary, they tend to consider their labor, even if formally dependent, to be an enterprise where they can spend the best part of their energy, independently from the economic and juridical condition in which it expresses itself.

In order to understand this mutation in the perception of the notion of enterprise, we need to consider a decisive factor: while industrial workers invested mechanical energies in their wage-earning services according to a depersonalized model of repetition, *high tech* workers invest their specific competences, their creative, innovative and communicative energies in the labor process; that is, the best part of their intellectual capacities. As a consequence, enterprise (independently from the juridical relation between property and labor) tends to become the center towards which desire is focused, the object of an investment that is not only economical but also psychological. Only if we consider this can we understand why in the last two decades disaffection and absenteeism have become a marginal phenomenon, while they had been the central element in social relations during the late-industrial period.

In the 1980s (and even more, as we know, in the 1990s) the average labor time increased impressively. In the year 1996, the average worker invested in it 148 hours more than their colleagues did in 1973. According to the US Bureau of Labor Statistics the percentage of individuals working more than 49 hours per week grew from 13% in 1976 to 19% in 1998. As for managers, it grew from 40% to 45%. The prevision that the development of computerized technologies, favoring automation, would determine a reduction of social labor time proved both true and false, but in the final analysis we have to consider it false. It is true indeed that necessary labor time decreases in the sphere of industrial production,

and therefore it is true that a growing number of industrial jobs are eliminated, replaced by machines or transferred to areas of the world where labor costs nothing and is not protected by unions. But it is also true that the time apparently freed by technology is in fact transformed into cyber time, a time of mental processing absorbed into the infinite production processes of cyberspace.

How is it possible to explain the workers' conversion from disaffection to acceptance? Certainly, one of the reasons is the political defeat suffered by the working class after the end of the 1970s because of the technological restructuring, the consequent unemployment and the violent repression inflicted on the political avant-garde. But this is not enough.

In order to understand the psycho-social change of attitude towards labor, it is necessary to consider a decisive cultural transformation linked to the shift of the social core from the domain of manual labor to that of cognitive labor.

What is happening in the domain of cognitive labor? Why does this new kind of worker value labor as the most interesting part of his or her life and therefore no longer opposes the prolongation of the working day but is actually ready to lengthen it out of personal choice and will?

To answer this question we need to consider several factors, some of which are difficult to analyze in this context. For instance in the last decades urban and social communities progressively lost their interest, as they were reduced to containers empty of humanity and joy in the relations they foster. Sexuality and conviviality have been transformed into standardized mechanisms, homologated and commodified: an anxious need for identity progressively replaced the singular pleasures of the body. Books like Mike Davis' *City of Quartz* and *Ecology of Fear* show that the quality of existence has affectively

and psychologically deteriorated, due to the rarefaction of community ties and the sterilizing obsession with security.

It seems that ever less pleasure and reassurance can be found in human relations, in everyday life, in affectivity and communication. A consequence of this loss of eros in everyday life is the investment of desire in one's work, understood as the only place providing narcissist reinforcement to individuals used to perceiving the other according to rules of competition, that is to say as danger, impoverishment and limitation, rather than experience, pleasure and enrichment.

In the last decades, the effect produced in everyday life is that of a generalized loss of solidarity. The imperative of competition has become predominant at work, in media, in culture at large, through a systematic transformation of the other into a competitor and therefore an enemy.

Wealth?

But we still have not answered our question: how did it happen that after a long period of social autonomy marked by the refusal of work, when social solidarity prevailed over competition, and quality of life over power and the accumulation of money, labor has regained a central position in the imagination, both in the scale of socially recognized values and in the collective psychology? Why do such a large part of workers today consider work the most interesting part of their life, no longer opposing the lengthening of their working day and instead spontaneously choosing to increase it? Of course, this is also due to the dramatic worsening of social protections, determined by thirty years of *deregulation* and the elimination of public structures of assistance, but this is only a partial reason.

On an anthropological level a determinant aspect has been the assertion of a life model totally focused on the value of wealth, and the reduction of the concept of wealth to economic and purchasing power. But in fact, the identification of wealth with property is not at all self-evident.

To the question "What is wealth?" we can answer in two completely contrasting ways. We can evaluate wealth on the basis of the quantity of goods and values possessed, or we can evaluate wealth on the basis of the quality of joy and pleasure that our experiences are capable of producing in our feeling organisms. In the first case wealth is an objectified quantity, in the second it is a subjective quality of experience.

Money, bank accounts and economic growth are not the only things driving this new affection for labor dominating the psychological and economical scene of the last twenty years. But they are certainly a dominant factor. The economic ideology is compulsively focused on the conviction that loving one's job means money, and that money means happiness. This is only partially true.

Let's repeat the question: what does wealth mean? The only answer available to this question is naturally an economic one: wealth means possessing the means that allow us to consume, namely the availability of money, credit and power. Yet this is still a poor answer, a partial, perhaps even completely wrong answer, producing misery for all, even for those capable of accumulating a lot of these things. This answer conceives wealth as a projection of time aimed at gaining power through acquisition and consumption. But one could instead conceive of wealth as the simple capacity to enjoy the world available in terms of time, concentration and freedom.

Naturally these two definitions of wealth are in conflict, and not only as definitions. They are indeed two different modalities

of relation to the world, time, and the body. The more time we spend acquiring means for consumption, the less time we have to enjoy the world available to us. The more we invest our nervous energies in the acquisition of purchasing power, the less we can invest them in enjoying ourselves. It is around this issue—completely ignored by economic discourse—that the question of happiness and unhappiness in hyper-capitalistic societies is played out today. In order to have more economic power (more money, more credit) it is necessary to devote more and more time to socially homologated labor. This means though that it becomes necessary to reduce the time for joy and experience, in a word, for life. Wealth understood as enjoyment decreases proportionally to the growth of wealth understood as economic accumulation, for the simple reason that in the latter framework mental time is destined to accumulation rather than enjoyment.

On the other side, wealth understood as economic accumulation increases in proportion with the reduction of the dispersive pleasure, causing the social nervous system to suffer contraction and stress, without which there cannot be any accumulation.

But the two perspectives produce the same effect: the expansion of the economic domain coincides with a reduction of the erotic sphere. When things, bodies and signs become a part of the semiotic model of the economy, wealth can only be experienced in a mediated, reflected and postponed way. As in an infinite play of mirrors, what is really experienced is the production of scarcity and need, compensated by a fast, guilty and neurotic consumption because we can't waste time; we need to get back to work. Therefore wealth is no longer the ability to enjoy things, bodies and signs in time, but the accelerating and expansive production of their loss, transformed in exchange value and anxiety.

Now we can finally answer the question: how did it happen that work regained a central place in social affectivity and why did society develop a new affection for work?

One reason is well-known: in a situation of competition workers are obliged to accept this primordial blackmail: work as much as possible or die. But there is another answer we can give, concerning the impoverishment of everyday life and the relation to others, the loss of eroticism in the communicative experience.

The reasons behind the new love of working are to be found not only in a material impoverishment derived from the collapse of social warranties, but also in the impoverishment of existence and communication. We renew our affection for work because economic survival becomes more difficult and daily life becomes lonely and tedious: metropolitan life becomes so sad that we might as well sell it for money.

Labor, communication, community

The word “enterprise” that, in the industrial phase of capitalism, merely meant a capitalist organization with economical finalities, like the development of human labor and the accumulation of value, now means something infinitely more complex. Regaining something of its original humanistic meaning, the word enterprise refers to the responsible human initiative of transforming the world, nature and ones very relation with others.

Of course, the enterprise develops within the frame of the capitalist economy and therefore its limits are the same as those characterizing essential capitalist forms: exploitation, production of scarcity, violent imposition, and rules founded on force. But there is an ambiguity that needs to be understood: enterprise is

subdued to capitalist rule, the two are not at all the same thing. The desperate attempt to find freedom, humanity and happiness where the accumulation of value reigns rests on this potential difference.

The investment in desire comes into play at work, since social production has started to incorporate more and more sections of mental activity and of symbolic, communicative and affective action. What is involved in the cognitive labor process is indeed what belongs more essentially to human beings: productive activity is not undertaken in view of the physical transformation of matter but communication, the creation of mental states, of feelings, and imagination.

Classical industrial labor and specifically the organized form of the Fordist factory had no relation with pleasure. It had no relation with communication either: communication was actually thwarted, fragmented and obstructed as long as workers were active in front of the assembly line. Industrial labor was characterized mainly by boredom and pain, as is witnessed in metallurgist and mechanics' reports to sociologists who, in the 1950s and 1960s, studied the workers' conditions of alienation and atomization.

Therefore industrial workers found a place for socialization in subversive working communities, political organizations or unions where members organized against capital. Workers' communism became the main form of good life and of conscious organization for the class that capital forced (and still forces) to live a great part of its existence in inhuman conditions. Communism was also the only form of knowledge for the class that capital forced (and still forces) to live in conditions of mental passivity. Communism was the form of universal consciousness produced by the working community. In the communist organization workers could leave their conditions of abstract labor to rediscover concrete communication

through a common project, a shared mythology. This kind of communism has nothing to do with the historical communism imposed throughout the twentieth-century by feudal, military and ideological bureaucracies. The only relation between the State Communism imposed by the Leninist parties in the Soviet Union and elsewhere, and the autonomous communism of the workers, is the violence systematically exerted by the first over the second, in order to subdue, discipline and destroy it.

Political communism was the power of backward and despotic bureaucracies that exercised repression and violence in order to protect their own power from the globalizing dynamics of capital. Once these same dynamics became stronger than the bureaucracies' resistance, political communism was finally defeated by world capitalism and the economic power of capitalist globalization. The autonomous communism of the workers underwent a different destiny: parallel, to a certain extent, but still different. Workers' communism has been partially subsumed by capital, by transforming workers' opposition into innovative dynamics (refusal of work, substitution of workers' labor with machines, and the production shift towards digital cycles).

Partially, then, workers' communism has been reduced to a sterile residue, always more marginal. There is no more workers' communism, since workers no longer belong to a community. Industrial workers have not disappeared from the face of the earth. Globalization, in fact, greatly enlarged the cycle of industrial labor, moving it to the poorest peripheries of the planet and degrading it to a condition of semi-slavery.

But capital's deterritorialization has taken place rapidly, infinitely more rapid than the time required for workers to build their communities. Paul Virilio describes very well the function of

velocity in the relation between states and military blocs throughout the modern period. But the velocity of class struggle, the war between working class and capital, was even more decisive. Digital technology and the financial character of the world economy have accelerated the pace of capital transfers, of changes in the organization of work and the creation and dismantling of productive centers all around the world. This acceleration obstructs the formation of communities in the places where capital starts the productive process.

While industrial labor did not imply communication and did not attract desiring energies, the opposite can be said for cognitive labor. Info-workers can sometimes be described as craftsmen, since they invest their knowledge and creativity in the process of producing networks. Their energy is displaced from one point of the productive network to the other: capturing fragments of information in order to recombine them within a constantly changing general frame.

The investment of desire, which for the craftsman deeply connected to its local community and its needs used to have a reassuring character, for the info-worker develops along very different lines, producing anxiety, incertitude and constant change. Flexibility is the necessity to displace, move, and constantly change perspectives. This is the double-sided fulcrum of desire and productivity for the info-worker. Experience, knowledge and flux are at the same time the constitutive aspects of existence and the context of active labor.

Cognitive labor is essentially a labor of communication, that is to say communication put to work. From a certain point of view, this could be seen as an enrichment of experience. But it is also (and this is generally the rule) an impoverishment, since

communication loses its character of gratuitous, pleasurable and erotic contact, becoming an economic necessity, a joyless fiction.

Moreover, not all forms of work that could somehow be defined as mental activities are linked to communication, invention and creation. A characteristic aspect of info-labor is the fact that it cannot be reduced to any category, not even to deterritorialization or to autonomy or creativity. The people who sit at their terminals in front of a screen, repeating every day the same operation a thousand times, relate to their labor in a way similar to industrial workers. What we need to understand, though, is the new element, the fact that creative labor in the network circle is infinitely flexible, it can be assembled and disassembled, and that it is precisely in this dismantling identification that we can find both its desire and its anxiety. Within mental labor as a whole we need to distinguish properly cognitive labor, where intellectual energies are engaged in a constant creative deterritorialization, and mental labor of a purely applicative kind, which is still prevalent quantitatively. Even within the mental labor cycle, we can distinguish *brain workers* from *chain workers*. But I'll focus on the most innovative and specific forms, since they represent the trend that is transforming the whole of social production.

Cognitive labor in the network

In order to understand the transformation that social perception of labor underwent during the past few decades and how it determined the workers' condition of cultural and psychological dependence, we need to analyze both the investments of desire within the domain of info production and the formal aspects of labor relations.

The digital transformation started two different but integrated processes. The first is the capture of work inside the network, that is to say the coordination of different labor fragments in a unique flow of information and production made possible by digital infrastructures. The second is the dissemination of the labor process into a multitude of productive islands formally autonomous, but actually coordinated and ultimately dependent. As we have said, cognitive labor manifests itself as info labor, that is to say as the infinite recombination of a myriad information, available through a digital support. When cooperation means transferring, elaborating and decoding digitalized information, it is evident that the network works as its natural frame.

The function of command is no longer a hierarchical imposition, localized in the factory, but a transversal, deterritorialized function, permeating every fragment of labor time.

The non-hierarchical character of network communication becomes dominant in the entire cycle of social labor. This contributes to the representation of info-labor as an independent form of work. But this independence, as we have seen, is in fact an ideological fiction, covering a new and growing form of dependency, although no longer in the previous formal hierarchies, whose command over the productive action was direct and voluntary. This new dependency is increasingly apparent in the automatic fluidity of the network: we have a strict interdependence of subjective fragments, all distinct but objectively dependent from a fluid process, from a chain of automatisms both external and internal to the labor process which regulate every gesture, every productive parcel.

Both simple executing workers and entrepreneurial managers share the vivid perception that they depend on a constant flow

that cannot be interrupted and from which they cannot step back save at the price of being marginalized. Control over the labor process is no longer guaranteed by the hierarchy of bigger and smaller bosses typical of the Taylorist factory, but it is incorporated in the flux. Cellular phones are probably the technological devices that best illustrate this kind of network dependency. The cellular phone is left on by the great majority of info-workers even when they are not working. It has a major function in the organization of labor as self-enterprise that is formally autonomous but substantially dependent. The digital network is the sphere where the spatial and temporal globalization of labor is made possible. Global labor is the endless recombination of a myriad of fragments that produce, elaborate, distribute and decode signs and informational units of all sorts. Labor is the cellular activity where the network activates an endless recombination. Cellular phones are the instruments making this recombination possible. Every info-worker has the capacity to elaborate a specific semiotic segment that must meet and match innumerable other semiotic fragments in order to compose the frame of a combinatory entity that is info-commodity, Semiocapital.

But for this combination to become possible, a single, infinitely flexible (and constantly reactive to the calls of Semiocapital) productive segment is not enough: a device is needed, capable of connecting the single segments, constantly coordinating and localizing in real time the fragments of info production. Cellular phones, the most important article of consumption of the last decade, provide this very function at a mass level. Industrial workers had to spend eight hours daily in a specific place if they wanted to receive their wage in exchange for productive gestures performed again and again in a specific territory.

The mobility of the product was made possible by the assembly line while workers had to remain motionless in space and time. Info-workers, instead, constantly move all along the length, breadth and depth of cyberspace. They move to find signs, to elaborate experience, or simply to follow the paths of their existence. But at every moment and place they are reachable and can be called back to perform a productive function that will be reinserted into the global cycle of production. In a certain sense, cellular phones realize the dream of capital: that of absorbing every possible atom of time at the exact moment the productive cycle needs it. In this way, workers offer their entire day to capital and are paid only for the moments when their time is made cellular. Info-producers can be seen as neuro-workers. They prepare their nervous system as an active receiving terminal for as much time as possible. The entire lived day becomes subject to a semiotic activation which becomes directly productive only when necessary.

But what emotional, psychological, and existential price does the constant stress of our permanent cognitive electrocution imply?

The factory of unhappiness

Happiness is not a matter of science, but of ideology. This is how it should be addressed.

Even if in the public discourse it is not possible to pursue a scientifically based and coherent discourse on happiness, we see entire flows of communication built on the idea of happiness. We witness the circulation of fragmentary and imaginary solicitations which are rarely justified or coherent, yet remain extremely effective. In the 1990s, while the productive process was becoming immaterial,

the dominant rhetoric was all focused on happiness: to be happy is not only possible, but almost mandatory. In order to reach this goal, we have to follow certain rules and modes of behavior.

Both the totalitarian and the democratic political discourse have placed happiness on the horizon of collective action. Totalitarianism imposed mandatory behavior procedures and asked of its citizens to accept them enthusiastically, lest they be marginalized and persecuted: s/he who's unhappy is a bad patriot and a bad communist, s/he is a saboteur, and so on and so forth.

Democracy does not expect an enthusiastic consent. On the contrary, in a mature vision we conceive democracy as an endless pursuit of a possible *modus vivendi* allowing individuals to identify with personal and public behaviors capable of capturing some relative happiness.

Capitalism is often (and with no reason) presented as the inseparable companion of democracy (while we know that instead it often prospers in the shadow of far from democratic regimes), but in fact it is not tolerant at all, since it expects enthusiastic participation in a universal competition where it is impossible to win without fully and convincingly deploying all of our energies.

Totalitarian regimes, like Nazism, Fascism and the authoritarian Socialist states, denied freedom to their people in the name of a collective and homologated happiness, thereby producing an infinite sadness.

But even the liberal economy, with the cult of profit and success represented in a caricatured but persuasive manner in advertising discourse, ended up producing an unhappiness caused by constant competition, defeat and guilt.

In the 1990s the *New Economy's* ideology asserted that free market play creates a maximum of happiness for humanity in

general. In fact, one of *New Economy's* effects was the assimilation of ideological and advertising messages, and the transformation of advertising into a sort of paradigm of economic theory and political action.

It is well known that the discourse of advertising is based on the creation of imaginary models of happiness that consumers are invited to replicate. Advertising is a systematic production of illusions, and therefore of disillusion, as well as of competition and defeat, euphoria and depression. The communicative mechanism of advertising is based on the production of a sense of inadequacy coupled with the solicitation to become a consumer, in order to feel adequate and to finally realize the happiness that has been eluding us.

Self-realization and the refusal of work

As we have already seen, in the 1960s and 1970s, at the very peak of the industrial system's mature phase, when the Fordist mechanical and repetition based model realized its perfection, the workers' feeling of estrangement from industrial labor and their refusal to work, found support in a cultural wave that placed the issue of alienation at the core of its critical system. In its philosophical meaning, alienation meant a loss of human authenticity, the exchange of what in men and women is more essentially human for something materially valuable, such as a salary, money, or consumption goods. Philosophies of idealist stripe, influenced by Existentialism, were widely circulated in the political movements of those years. They considered capitalism the reason for an alienation that takes away people's humanity in exchange for a subaltern and conformist participation in the circuit of goods. As

a consequence, these philosophies indicated as their major political objective the achievement of a social condition where productive labor and self-realization would come together.

Then in the 1970s feminist and gay movements identified with the idea that "the personal is political." They meant that it was not only political power and the government of the republic that was at stake in the social struggle. What was at stake was first of all the quality of life, pleasure and pain, self-realization and respect for diversity: desire as the engine of collective action.

Altraverso (In-between), a journal which held a certain influence on the youth movements of the 1970s, came out once with the title "The practice of happiness is subversive when it becomes collective." The 1977 movement—in its colorful and creative Italian version and in its British one as well, which was punk, gothic and disturbing—was founded on one intuition: desire is the determining field for every social mutational process, every transformation of the imagination, every shift of collective energy. It is only as a manifestation of desire that we can understand the workers' refusal of the wage relation, of conforming their lives to the timing of the assembly line realized through absenteeism and sabotage.

Rich, aware, productively and culturally autonomous, liberated individualities deviated with rage from the ideology of sacrifice and the work ethic: work was denounced as a pure hierarchical repetition, deprived of any intelligence or creativity. That 1977 movement therefore used the ideology of happiness as a powerful critical instrument against the Taylorist factory and the Fordist productive cycle, but also against the social and disciplinary structure based on the factory model.

In the following years some decisive events completely upset the productive, social and cultural landscape.

First of all, digital technology spread very quickly, transforming in many ways the modalities of productive labor and its concatenations.

Secondly, the hierarchical structure of the factory model collapsed.

The aspiration to self-realization became fundamental in the reconstruction of a functioning social model perfectly fitting digital productive modalities. Social history can be seen as the uninterrupted story of the refusal of work and the reconstructions of the productive system, where reciprocal resistance and reaction coexist. In industrial societies capital and the working class had contradictory interests, but they also had a common interest. Contradiction came from the fact that capital aimed to take from living labor the greatest possible amount of labor time and value, while the workers' interest was instead that of avoiding exploitation, saving their physical and intellectual energies for themselves. At the same time though, workers and capital both had an interest in reducing necessary labor time, introducing productive automatisms, machines and technologies. This is what actually happened. The workers' struggle for power pushed capital to use machines instead of workers, exactly as Karl Marx had anticipated in his *Grundrisse*. The introduction of microelectronic technologies, the digitalization of machinery and the computerization of productive processes led rapidly to a transformation of the characteristics of labor and to its general intellectualization.

During the twentieth-century the issue of the relation between intellectual and manual labor was constantly raised. Max Weber thematizes this relation, Lenin uses it as a basis for the theory of the party and Gramsci rethinks it under a new light. But when intellectual labor is mentioned in the theoretical tradition of the working movement, it refers to a function that is separated from the productive process of

commodities, as a function of control that governs and ideologically organizes consent and therefore an executive and political function.

The properly productive function was essentially delegated to manual labor, that is to say to the direct transformation of physical materials. Intellectual labor gained material power, becoming the instrument of the political and technical empowering of industrial labor and of the working class. Automation had already started spreading during the mature industrial period: it implied that machinery could assume transformational functions, so that manual labor was greatly strengthened. In the 1970s, more and more operative functions were transferred to machines, with the introduction of numerically controlled instruments and flexible automation systems. But the decisive transformation of the 1980s was the systematic computerization of working processes. Thanks to digitalization, every concrete event not only can be symbolized, but also simulated, replaced by information. Consequently it becomes possible to progressively reduce the entire production process to the elaboration and exchange of information.

And in fact, what is information? It is not simply a transfer of signs, referring to an object or an event. Information is a creation of form, which is inoculated into the object or the event. It is the creation of value, the production of goods. Every object, event, and commodity can be replaced by algorithmic information capable of transforming that object or that event into exchangeable existence.

Info-production reached all cycles of goods production, services, material and semiotic objects, since digitalization created a simulacrum of the world operationally integrated to the physical world.

The formation of the info-productive model was accompanied by a cultural and psychic evolution in the labor force, substantially changing the very perception of activity. In classic industrial society,

workers felt expropriated of their intellectuality, individuality and creativity. In high tech production cognitive faculties are in fact put to work, and personal peculiarities seem to be valorized.

The intellectualization of labor, a major effect of the technologic and organizational transformation of the productive process in the last two decades of the twentieth-century, opens completely new perspectives for self-realization. But it also opens a field of completely new energies to the valorization of capital. The workers' disaffection for industrial labor, based on a critique of hierarchy and repetition, took energies away from capital, towards the end of the 1970s. All desires were located outside capital, attracting forces that were distancing themselves from its domination. The exact opposite happened in the new info-productive reality of the *new economy*, desire called new energies towards the enterprise and self-realization through work. No desire, no vitality seems to exist anymore outside the economic enterprise, outside productive labor and business. Capital was able to renew its psychic, ideological and economic energy, specifically thanks to the absorption of creativity, desire, and individualistic, libertarian drives for self-realization.

Prozac-economy

In the 1990s, the decade of the alliance between cognitive labor and a reconstituting capital, financial flows generated by *net trading*, the advertising cycle, venture capital and retirement funds moved to the cycle of virtual production. Cognitive labor could therefore become enterprise, entering the formation circuits of the Techno-Sphere and media-scape. Armies of creative engineers, of libertarian programmers and artists became the proletarians of intelligence, people who owned nothing but their cognitive labor force and who could start

an enterprise on an economic and creative basis. In those years a veritable battle took place, between a diffuse, libertarian, equalitarian and collective intelligence and the *new economy's* oligopolies.

The diffusion of the dot.com enterprise also represented a redistribution of social revenue, conquering revenue for research and experimenting. The model of the network, the principle of productive collaboration and *open source* took roots in society thanks to the alliance between recombining capital and cognitive labor.

The alliance of the 1990s happened under the sign of a neo-liberalist ideology that glorified the market, describing it as a space capable of perfect self-regulation. Perfect self-regulation, of course, is a naïve fairytale since real economic play involves power relations, violence, the mafia, theft and lies. Thus monopolies came to dominate information technologies, the media system and all those other sectors where cognitive workers had invested their energies in the illusion of being able to constitute independent enterprises. The alliance between cognitive labor and recombinatory capital ended with the submission of the market to oligopolistic domination, and cognitive labor was subjected to the decisions of the big financial groups dominating the world economy. In the year 2000, the stock exchange collapse determined a loss of energy in the innovative sectors, and restored the domination of the old oil-based economy, redirecting the world towards the meaningless horror of war.

Competition has been the universal belief of the last neo-liberalist decades. In order to stimulate competition, a powerful injection of aggressive energy became necessary, a sort of permanent electrocution producing a constant mobilization of psychic energies. The 1990s were the decade of psycho-pharmacology: a Prozac-economy.

Frenetic rhythms dominated mid-1990s finance, consumption and lifestyles, producing the effect of the systematic use of euphoria-

inducing drugs, including neuro-programming substances. A growing part of Western societies, subjected to an uninterrupted mental hyper-excitation to the point of collapse, evoked as in an exorcism the urban legend of the *millennium bug*. Once that phantasmatic threat dissolved, the real collapse came. But the *new economy's* collective psyche had already reached its point of no return. When in 1999 Alan Greenspan spoke of the "irrational exuberance of the market," his words were more of a clinical than a financial diagnosis. Exuberance was an effect of the drugs and of the over-exploitation of available mental energy, of a saturation of attention leading people to the limits of panic.

Panic is the anticipation of a depressive breakdown, of mental confusion and disactivation.

And finally the moment of the Prozac crash came.

The beginning of the new millennium had glorified mega-fusions: AOL and Time Warner united their tentacles in order to diffusely infiltrate the global mind. Immediately after, the European telecommunication enterprises invested huge amounts of money into UMTS (Universal Mobile Telecommunications System). These were the last actions before the crash involving Worldcom, Enron, and entire sectors of the net-economy. This crisis, which was only a faint anticipation of the 2008 final catastrophe, was the first manifestation of the breakdown suffered by swarms of cognitive workers more and more affected by psychopathological syndromes and stress.

Panic depressive syndrome and competition

In his book *La Fatigue d'être soi*, Alain Ehrenberg discusses depression as a social pathological syndrome, specifically depending on situations characterized by competition.

"Depression begins to develop after the disciplinary behavioral models and the rules of authority and conformity to the prohibitions that assigned a destiny to social classes and gender collapsed faced with the new norms pushing each and everyone to individual action, forcing individuals to become themselves. Because of this new norm, the responsibility of our lives is now fully assigned to each of us. Depression then manifests itself as pathology of responsibility, dominated by the feeling of inadequateness. The depressed individuals are not up to the task, they are tired of having to become themselves."¹

Depression is deeply connected to the ideology of self-realization and the happiness imperative. On the other side, depression is a way to define through the language of psychology a behavior that was certainly not considered pathological outside of competitive, productive and individualist contexts.

"Depression is part of a field of problems, dominated more by inhibition, slackening and asthenia than by moral pain: the ancient 'sad passion' is transformed into a block of action, and this happens in a context where individual initiative becomes the measure of the person."²

Competition implies a risky narcissistic stimulation, because in a highly competitive context, like that of a capitalistic economy and specifically of the *new economy*, many are called but only a few are chosen. Social norms do not acknowledge the possibility of failure, since this failure would be assigned to a psychopathologic context. There is no competition without failure and

defeat, but the social norm cannot acknowledge the norm of failure without questioning its own ideological fundamentals, and even its own economic efficiency.

The other side of the *new economy* is naturally the use of psychostimulant or anti-depressive substances. This is a hidden, negated, removed side, but absolutely decisive. How many, among *new economy* operators, survive without Prozac, Zoloft or even cocaine?

Dependence on psychotropic substances, those one can buy at the pharmacy and those one can buy on the street, is a structural element of the psychopathologic economy.

When economic competition is the dominant psychological imperative of the social consortium, we can be positive that the conditions for mass depression will be produced. This is in fact happening under our eyes.

Social psychologists have in fact remarked that two pathologies are of great actuality in these last decades of liberalist hyper-capitalism: panic and depression.

Panic is a syndrome psychologists don't understand very well, since it seems to have occurred only rarely in the past. Panic syndrome has been only recently diagnosed as a specific phenomenon, and it is hard to find its physical and psychic reasons, but it is even harder to find an adequately effective therapy against it. I don't have the ambition to offer any solution to the pathologic problem this syndrome poses. I'm just making some observations on the meaning of panic. Panic is the feeling we have when, faced with the infinity of nature, we feel overwhelmed, unable to receive in our consciousness the infinite stimulus that the world produces in us. The etymology derives from the Greek word *pan*, that means "everything existing": the god named Pan appeared bringing a sublime, devastating folly overtaking those

who received his visit (see James Hillmann's *An Essay on Pan*). But then how can we explain the diffusion of this kind of syndrome in our time? Is it possible to find any relation between it and the context in which it manifests and spreads?

The social context is a competitive society where all energies are mobilized in order to prevail on the other. Survival is no longer based on reaching a position of sufficient preparation and abilities, but it is constantly questioned: if one does not win, one can be eliminated, in a few days or a few months.

The technological context is the constant acceleration of the rhythms of the global machine, a constant expansion of cyberspace in the face of the individual brain's limited capacities of elaboration.

The communicational context is that of an endless expansion of the Infosphere, which contains all the signals from which competition and survival depend.

Isn't this a very similar situation to the one pictured by the Greek etymology of the word panic?

The infinite vastness of the Infosphere is superior to the human capacities of elaboration, as much as a sublime nature overcomes the capacities of feeling that the Greeks could summon when faced with the god Pan. The infinite velocity of the expansion of cyberspace, the infinite velocity of exposure to signs perceived as vital to the survival of the organism produce a perceptive, cognitive and psychic stress culminating in a dangerous acceleration of all vital functions, such as breathing and heart beat, leading to collapse.

If there is anything meaningful in this interpretation of panic, then this is not simply an individual psychopathology, but an individual manifestation of a widely spread, quasi-generalized social syndrome. It is collective behavior that shows the most evident signs of panic.

Collective panic generates phenomena such as irrational aggressiveness against immigrants, senseless mass violence in stadiums, as well as other, apparently normal behaviors, like those characterizing personal relations in the contemporary urban space. These behaviors cannot be corrected with the instruments of political persuasion or judicial repression, because they have nothing to do with politics and ideology but depend on a social psychopathology induced by the Infosphere's excess, by the hyperstimulation and the endless cognitive stress affecting the social organism and caused by permanent electrocution.

Permanent electrocution is the normal condition of a system where network communicative technologies are used in a competitive social situation, projecting the organism in an infinite, hyper-fast flow of economically relevant signs.

Once the organism gets overtaxed to an unbearable degree, a panic crisis may lead to collapse, or the organism might detach itself from the flow of communication, manifesting a sudden psychic loss of motivation called depression by psychologists.

With depression we are affected first of all by a disinvestment of the energy previously used in a narcissistic way. Once the organism realizes that it is unable to sustain further competitive tension, that it is a loser in the relation that was absorbing all of its motivations, what takes place is a sort of zero degree of the exchange relation between the conscious organism and its world.

With depression we are always affected by a process of demotivation, originated by the loss of an object that used to be the focus of narcissistic attention for the subject.

"The world doesn't make sense anymore"—says the depressed—since the object of his or her narcissistic passion is lost. This might explain the diffusion of depression as a secondary pathologic

syndrome (if compared to the primary one, which I believe to be panic), in a society based on the principle of competition and supplied with the technological instruments necessary for the infinite acceleration of the communication circles surrounding the organism.

The description of these two complementary syndromes can be useful in order to address the psycho-social framework constantly generating and feeding the psychopathology of the present.

The aggressive young people addicted to amphetamines, riding in super-accessorized cars and going to work ready to give their best to increase their share in corporate earnings and to obtain their bosses' approval are all in the waiting room of panic. In the same way their younger skinhead brothers beat each other up every Sunday in the soccer stadium, expressing a form of panic accumulated weekly during their normal working week.

Political culture refuses to acknowledge that the legal drugs one can buy at the pharmacy, a source of astonishing profits for Roche and Glaxo, as well as the illegal ones, a source of profit for the mafia, are an essential factor (and in fact the most important one) of competitive society.

Virtual class and cognitariat

Virtual is a reality whose tangible physicality has been eliminated. FrigidThought can well be recognized in the network world, where the relation to the other is artificially euphoric but substantially desexualized as well.

Frigid Thought is the a-critic exaltation of digital technologies. Digital technologies are based on the loss of the physicality of the

world, on simulating algorithms capable of reproducing all life forms, except for only one quality: their tangible reality, their physical form and therefore their caducity.

Noah grouped in his ark all the creatures of the earth, in order to save them from the flood. Today in a similar way we can enter our air-conditioned arks and float on the waves of the digital deluge without losing contact with the cultural patrimony accumulated by humanity, keeping linked to the other arks, while at the same time, on the physical planet down there, barbarian hordes swarm and make war.

Those who can, isolate themselves in a pressurized and hyper-connected capsule. They are physically removed from other human beings (whose existence becomes a factor of insecurity), though ubiquitous, virtually present in any possible place according to their desires.

This schizophrenic geography needs indeed two different catalogues, two atlases describing supposedly separate worlds. The catalogue of the virtual class is sterilized. It proposes objects whose temporality and physicality have constitutively been removed. The removal of corporeality is a guarantee of endless happiness, but naturally a frigid and false one, because it ignores, or rather removes, corporeality: not only that of others, but even one's own, negating mental labor, sexuality and mental mortality.

It is because of these considerations that I see the need for a new notion, able to analyze the virtual class in corporeal, historical and social terms.

The notion of virtual class stresses the socially undefined, elusive character of the work flows produced by Semiocapital. The virtual class is the class of those who do not identify with any class, since they are not socially or materially structured: their definition depends on the removal of their own social corporeality.

This seems to me an interesting and useful notion. But I'd like to find a complementary concept, capable of defining the (denied) carnality and the (avoided) sociality of the mental labor at work in the production of Semiocapital. Therefore I use the notion of the *cognitariat*. The *cognitariat* is the semiotic labor flow, socially spread and fragmented, as seen from the standpoint of its social corporeality. The virtual class has no needs, but the *cognitariat* does. The virtual class is not affected by the psychic stress determined by the constant exploitation of attention. The *cognitariat* is affected. The virtual class cannot produce any conscious collective process except as collective Intellect. The *cognitariat* can identify itself as a conscious community.

It is evident that the word "*cognitariat*" includes two concepts: cognitive labor and proletariat.

Cognitariat is the social corporeality of cognitive labor. What is at stake within the social definition of cognitive labor is precisely the body, sexuality, mortal physicality, the unconscious.

In his most famous book, entitled *Collective Intelligence* (Perseus, 1999), Pierre Lévy proposes the notion of collective intellect. Thanks to the digital network, he writes, the idea of a collaborative participation of all human intellects to the creation of a collective intellect takes a concrete shape, and the creation of the world within technological, digital and virtual conditions becomes possible. But the social existence of cognitive workers does not exhaust itself with the intellect: cognitive workers, in their concrete existence, are bodies whose nerves become tense with constant attention and effort while their eyes are strained in the fixed contemplation of a screen.