

SUBJECT: NEW FORMS OF PRODUCTION AND CIRCULATION OF KNOWLEDGE

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Not, perhaps, since the printing press's invention has European culture experienced so much upheaval. The very underpinnings of the notion of culture and of its modes of production, socialization, and appropriation are under attack. I am speaking, of course, of culture's integration in the creation of economic value. This integration process has accelerated since the beginning of the eighties through, on the one hand, the globalization and increasing pervasion of finance in the economy, and on the other, the onslaught of so-called new technologies.

Many have raised their voices in defense of culture, intellectuals, and artists. The strongest and most organized opposition to culture's subordination to economics came together when commercial relations regarding audiovisual production were being renegotiated, and around the issue of "authors' rights"—the very definition of which is open to discussion once new media are in the picture.

At least in France, the strategy of cultural defense seems to go beyond these first forms of mobilization against large U.S. communication and entertainment corporations. That strategy tends to involve protecting the "cultural exception."

The artists and intellectuals—and politicians and governments—who demand the right to a "cultural exception" see themselves as heirs to a tradition of European cultural autonomy and of art and artists' independence from politics and economics. The strategy of "cultural exception" supports seems to be the re-entrenchment of the separation between culture and the economy.

This position—which, in my opinion, reflects a larger European point of view—is weak and, once scrutinized, untenable with regard to the new modes of knowledge's production and circulation. The hypothesis I'd like to put forward turns the cultural exception strategy on its head; it can be summarized in this way: the modes of production, socialization, and appropriation of knowledge and of culture are different than the modes of production, socialization, and appropriation of wealth. Georg Simmel's intuition was that it is the modes of production and socialization peculiar to culture—not culture's autonomy—that must be introduced into the economy. Nor can that introduction be on a volunteer basis, since—as Gabriel Tarde has it—"intellectual production" tends to shape the direction and organization of wealth production, and the "need to know," "love of beauty and greediness for the exquisite" are the main outlets opened to economic development.

I will therefore use these two authors, and particularly the "economic psychology" published by Tarde in 1902—nearly a century ago—to unpack my argument. Let us keep in mind that Tarde's remarkable early insights are not

This is a story about invisible hands. This is a story about endless work. This is a story about women's work of maintenance and survival. This is a story about the laboring female body in the invisible feminine economy of production and reproduction. This is a story about repetition, boredom, exhaustion, stress, crashes. This is a story about tedious, repetitive, straining, manual labor harnessed to the speed of electronic machines. [Faith Wilding <744#47.2452@CompuServe.Com>, The Economy of Feminized Maintenance Work, Tue, 8 Sep 1998.]

really part of European cultural tradition, since his theory has been largely forgotten. Based on the mode of production particular to culture, and especially knowledge, Tarde proposes an intriguingly contemporary critique of political economy by inverting the starting point of economic analysis. Rather than starting from the production of use-value—that is, “material production” (the famous pin factory, which went from the *encyclopédie des Lumières* to Adam Smith’s Scottish moral philosophy, therein becoming the incipit of political economy)—he started from the production of knowledge, that is, books.

“How is a book made? It is no less interesting than knowing how a pin and a button are made”: an unimaginable opening line for economists of his day—and, perhaps, of our own—but far less so for us, since the production of a book may be thought of as a paradigm for post-Fordist production.

Like any other product, “truth-values,” as Tarde calls knowledge, are the result of a production process. As apparatuses develop to make knowledge production and consumption practices more and more reproducible and homogenizable—Tarde talks of the “press” and “public opinion,” while we might turn to television, computer networks, and the internet—these apparatuses take on a “quantity character that is more and more marked, increasingly apt to justify their comparison with exchange-value.” Does this make them merchandise like any other?

The economy does indeed treat them as it would economic wealth, considering them as utility-value like others. But for Tarde, knowledge is a mode of production that cannot be reduced to the “division of labor”: it is a mode of “socialization” and “social communication” that cannot be organized by the market and through exchange without distorting its production and consumption value.

Political economy is forced to treat truth-values as it does other goods. This is because, first, it knows no other method than that which it elaborated for the production of use-value; second, and more important, though, it must treat these truth-values as material products, or else overturn its theoretical, and especially political, underpinnings. In fact, the “*lumières*” (beacons), as Tarde sometimes calls knowledge, exhausts political economy’s notions of economy and of wealth, founded on scarcity, lack, and sacrifice. Like political economy, then, let us start with production—but of books, not of pins. With the production of books we are immediately confronted with the need, in principle, to switch modes of production and property regimes with regard to what economics theorizes and legitimizes.

“The rule in the matter of books is individual production, while their property is essentially collective; for “literary property” has no individual meaning unless works are considered goods, and the idea of the book does not belong exclusively to the author before being published, that is, when it is still a stranger to the social world. Inversely, the production of goods becomes more and more collective and their property remains individual and always will, even when land and capital are ‘nationalized.’ There is nothing suspicious about the fact that, in the matter of books, free production is vital as the best means of production. A scientific organization of labor which would regulate experimental research or philosophic meditation through legislation would produce lamentable results.”

The large multinationals of the information economy are prepared to recognize the impossibility of organizing production according to “scientific management.” They are insufferable, however, regarding property regimes. Is the notion of property applicable to all forms of value, from utility-value to beauty-value to truth-value? Can we own knowledge as we own a utility-value? Perhaps, responds Tarde—but not in the way that economics or legal studies understand it, that is, as “free disposition.”

“In this sense, one is no more owner of one’s glory, nobility or credit [toward society] than he [*sic*] is of his limbs, which, as living things, he cannot relinquish to others. He therefore has nothing to worry regarding expropriation for these values, the most important of all, and the most difficult to nationalize.”

In order to avoid the necessity of the new mode of organizing production and the new property regime implied by the nature of knowledge, political economy is obliged to turn “immaterial products” into “material products,” that is, into goods like any others, for book production problematizes the exclusively individual property and disciplinary production upon which the economy is based.

Let us move to consumption: Can the consumption of wealth be compared to the consumption of truth-values and beauty-values? Tarde wonders, “Do we consume beliefs by thinking of them, and the masterpieces we admire by gazing upon them?” Only wealth, as political economy defines it, affords a “destructive consumption” that, in turn, supposes trade and exclusive appropriation. The consumption of knowledge, on the other hand, supposes neither definitive alienation nor destructive consumption.

And to deepen the specificity of the “consumption” of knowledge, let us analyze the mode of “social communication,” truth-value’s form of transmission, of which economists cannot conceive except under the form of the “market.” Tarde first tells us that knowledge need not be exclusive property in order to satisfy the desire of knowing, and does not require the definitive alienation of the “product.” He then adds that the transmission of knowledge lessens neither he who produces it nor he who exchanges it. On the contrary, the diffusion of knowledge, rather than depriving its creator, augments his value and the value of the knowledge itself. It is therefore not required that it be an object of exchange in order to be communicated.

“It is by metaphor or the abuse of language that we say that two people in dialogue are ‘exchanging their ideas’ or their admiration. Exchange, with regard to beacons [knowledge] and beauty, does not mean sacrifice; it means mutual influence, through the reciprocity of gift, but of a special class of gift which has nothing to do with wealth. Here, the giver deprives himself by giving; with regard to truths and beauty, he gives and retains at the same time. In the matter of power, he sometimes does the same thing... For the free exchange of ideas, as for religious beliefs, arts and literature, institutions and morals: between two peoples, neither may in any instance be reproached as those engaged in the free trade of goods might be reproached—of being a cause of impoverishment for one of them.”

The statement “the value of a book” is ambiguous, for it has both a venal value as something that is “tangible, appropriable, exchangeable, consum-

able,” and a truth-value as something that is essentially “intelligible, unappropriable, unexchangeable, unconsumable.” The book may be considered both as a “product” and as “knowledge.” As a product, its value may be defined by the market—but as knowledge?

The ideas of loss and gain are applicable to knowledge, but here the evaluation of losses and gains demands an ethics, not a market. A book is created for or against other books, just as a product is created for or against other products. Only in the latter case, however, may competition be decided by prices; in the former, an ethics is required. The transmission of knowledge has more to do with gift or with theft, which are moral notions, than with exchange.

“On the other hand, and by its [the free trade of ideas] very nature as a reciprocal addition, not a substitution, it arouses either fertile matings or fatal shocks between the heterogenous things it brings together. It may therefore cause great harm when it does not do great good. And just as this intellectual and moral free trade inevitably becomes an accompaniment to economic free trade, the reverse is also true: separated from one another, each would be ineffective and inoffensive. But, I repeat, they are inseparable, and to last indefinitely, a prohibitive tariff must be matched by an Index, that ecclesiastic prohibitionism.”

According to Tarde, then, the modes of production and communication of knowledge lead us beyond the economy. We are beyond the necessity of socializing intellectual forces through exchange, division of labor, money, or exclusive property. This does not mean that the relations of power between social forces are neutralized—in fact, they show up as fertile matings or fatal shocks beyond the market and the exchange of wealth. This means that the unavowed ethical nature of economic forces resurfaces powerfully as a single mode of “economic regulation” at the very moment in which economic production is subordinated to intellectual production.

Here we find the Nietzschean problem of the “hierarchy of value” and the “great economy,” but on different terrain.

Tarde gives another example, this time on “training,” which leads us to a similar conclusion. We may establish a comparison between the production of wealth and the production of truth-value through teaching. We may therefore, for pedagogy, define the various factors through which teaching is produced. Just as economists distinguish labor, land, and capital in the production of “beacons,” so may we distinguish the activity and intelligence of the student and the knowledge of the professor. “The truth is that these assays are not terribly useful. Above all, the first condition for good instruction—the teacher’s and student’s psychological conditions having been met—is a good school program, and a program supposes a system of ideas, a belief. Similarly, the first condition for good economic production is a moral code to which all agree. A moral code is a program for industrial production, that is, consumption—for the two are interdependent.

If, as some hold, the “beacons” may be related back to utility-value (they assume consumption and the destruction of forces and costs for the production; they are materialized in the product and have a price), the production, communication, and appropriation of thoughts and knowledge differs fundamentally from the communication and socialization of “wealth.”

In capitalism, then, all forms of production, even the most incomparable, can more and more be evaluated in terms of money, yet less and less does knowledge lend itself to this sort of evaluation. Here Tarde opens another hidden door of intellectual production that political economy cannot approach through its principles of scarcity, sacrifice, and necessity. The problem posed by “intellectual production” is not only that of defining an “ethical” measure adequate to truth-value, but especially the fact that it tends toward a form of production that is more and more free. Intellectual production exhausts the very *raison d'être* of the economy and its science, economics—scarcity.

“Civilization’s effect is to push into business—that is, into the economist’s field—a range of things that were previously without price, even rights and powers. So, too, has the theory of wealth encroached incessantly upon the theory of rights and the theory of power, that is, jurisprudence and politics. But against this trend, through the ever-growing freedom of widely distributed knowledge, the border between the theory of wealth and what we might call the theory of beacons is growing.”

These few pages almost seem to have been written with the information economy and intellectual property in an immaterial economy in mind. “Free production,” “collective property,” and “free circulation” of truth-values and of beauty-values are conditions for the development of social forces in the information economy. Each of these qualities of intellectual production is in the process of becoming a new “contradiction” within the information economy, for which the challenges represented today by the internet are but the premises of opposition to come.

Writing in the same era, Georg Simmel comes to similar conclusions. “Nor does the communication of intellectual goods require us to snatch away from the one what must be tasted by the other; at least, only an exacerbated and quasi-pathological sensibility may truly feel slighted when objective intellectual content is no longer exclusively subjective property but, rather, is thought by others. Generally, we may say that intellectual possession, at least to the extent that it has no economic extension, must in the end be produced by the very conscience of the acquirer. Yet it is clearly a question of introducing this conciliation of interests, which derives here from the nature of the object, into those economic domains where, because of competition in the satisfaction of a particular need, no one enriches him- or herself unless it is at the expense of another.”

In Simmel’s felicitous phrase, the conciliation of interests which derives from the nature of the intellectual object is a political program, for the logic of scarcity, the exclusive property regime and the mode of production are imposed upon its products by the new knowledge industries. But if we do not indicate the new oppositions specific to intellectual production, if we limit ourselves to demanding the autonomy of culture and of its producers, resistance to contemporary capitalism’s domination of culture remains nothing but a pious vow.

And yet the contemporary production of wealth integrates not only production, socialization and appropriation of knowledge, but also beauty-value, that is, aesthetic forces. As long as needs become more and more specialized,

aesthetic value is one of the basic elements which stimulate the desire to produce and the desire to consume. This process, which had only just started when Tarde wrote these pages, and which was barely perceptible by the economists of his day, has undergone an extraordinary acceleration, starting with the blossoming of what we may call the information or immaterial economy. The “cultural exception” strategy’s definition of culture presupposes a qualitative difference between industrial labor and artistic labor. Today, following the tendency identified by Tarde, according to which intellectual production subordinates economic production, artistic labor is becoming one of the models for the production of wealth.

We have already seen how the notion of wealth must integrate knowledge, and how intellectual labor sketches out the tendency of the development of “economic progress” according to Tarde. It only remains to see how artistic labor might lead to an understanding of this radical change. According to Tarde, every activity is a combination of imitative and inventive labor, but also of artistic labor, present in quite unequal proportions. Industrial labor does not escape this rule. What relationship is there between industrial and artistic labor? The clear distinction he establishes between industrial and artistic labor does not rule out the continuity of transition.

The social definition of artistic activity grasped magnificently by Tarde may inspire several reflections on how, by integrating industrial activity, it may change the relationship between producer and consumer. Of Tarde’s definition of artistic labor, let us underline two aspects: on the one hand, the determining role played by the “imagination”; on the other, the fact that in artistic activity the distinction between producer and consumer tends to erase itself. We need not add that, here too, Tarde’s considerations are of great importance in determining the status and function of the “consumer-communicator” of contemporary society.” Under post-Fordism, in effect, the clientele of any industrial production (and notably in all production in the information economy) tends to identify itself with a particular public which, in turn, plays the role of both producer and consumer.

Sensation is the nonrepresentative and therefore noncommunicable element that, according to Tarde, is the very object of artistic labor. “We have said it from the beginning: the phenomena of conscience are not entirely resolved by belief and desire, by judgment and intention. Lurking in these phenomena is always an effective and differential element playing the principal role in sensations and which, in the higher sensations—that is, feelings, even the most quintessential—acts in a dissimulated way, which does not make it any less essential. Art’s virtue and its characteristic is to regulate the soul by gripping it through its sensational side. As the handler of ideas and intentions, it is certainly inferior to religion and to the various forms of government, politics, law, and morals. But as an educator of the senses and of taste, it is unequaled.”

Does this mean that sensations, too, may constitute themselves as a value that can be measured quantitatively and therefore exchanged? And through what sort of apparatus, involving which sort of activity?

“...the great artists create social forces just as entitled to the name of ‘forces,’ just as capable of increasing and decreasing with regularity, as the energies of a living creature.”

clean, wash, dust, wring, iron, sweep, cook, shop, phone, drive, clean, iron, enter, mix, drive, delete, clean, purge, wash, merge, edit, shop, fold, phone, file, select, copy, curse, cut, sweep, paste, insert, format, iron, program, type, assemble, cook, email, fax, cry, forward, sort, type, click, dust, clean, etc. [Wilding, Economy]

Through works of art, it is the artist who lends social consistency to the most fleeting, most singular, and most nuanced of sensations. By combining the psychological elements of our soul, where sensations dominate, artists add a new variety of sensation to the public through their work. Sensation and sensitivity are hence the “products” of artistic labor.

“Yet, in thus building the keyboard to our sensitivity, in extending it for us, and in ceaselessly perfecting it for us, poets and artists juxtapose, even substitute for our natural and innate sensitivity, which is different in each of us, a collective sensitivity, similar for all, impressionable to the vibrations of the social milieu, precisely because it is born in the artist. The great masters of art, in a word, discipline our sensitivities and then our imaginations, causing them to reflect one another and to be aroused by their mutual reflection, while the great founders or reformers of religions, the sages, the legislators, the statesmen, discipline spirits and hearts, judgments and truths.”

For Tarde, then, artistic labor is “productive” labor in that it responds to a production and consumption need concerning pure sensation. We must now analyze how artistic and industrial labor are opposed or in harmony. The difference between art and industry lies above all in the fact that the desire or appetite for consumption met by art is more artificial and capricious than is that met by industry, and requires “longer social elaboration.”

The desire for artistic consumption is even greater than the desire for industrial consumption, child of “inventive and exploratory imagination.” Only the imagination which brought this desire into this world can satisfy it, for its very origin—unlike the desire for industrial consumption—lies almost exclusively in the imagination.

“The desire that serves industry—shaped, it is true, by the whims of its inventors—shoots out spontaneously from nature and repeats itself daily, like the periodic needs it translates; but the taste that art attempts to flatter is attached through a long chain of ideas to vague instincts, none of them periodical, which reproduce only by changing.”

The desire for industrial consumption preexists its object and, even when specified or elaborated by certain inventions of the past, asks only of its object to be fulfilled repeatedly; “but the desire for artistic consumption expects completion from its very object and asks of its new inventions that this object provide it with variations of their predecessors. Indeed, it is natural that an invented desire such as this has as its object, too, the very need to invent, since the habit of invention can only give birth to more such habits and increase its appeal.” These nonperiodic and accidental needs are born of an “unexpected meeting” and require the “perpetually unexpected” to survive.

But another characteristic of artistic labor is of particular interest. In artistic production, it is impossible to distinguish production from consumption, for the artist himself experiences the desire to consume, searching above all to please his own taste, not only that of his public.

“Moreover, the desire for artistic consumption is particular in that it is even more acute and its joy more intense in the producer himself, than in the mere connoisseur. In this, art is profoundly different than industry.... In matters of art, the distinction between production and consumption begins to lose its

importance, since artistic progress tends to make of every connoisseur an artist, and of every artist a connoisseur.”

And yet these differences and opposition between artistic and industrial labor are in the process of falling away, one after another. Instead, a deepening adaptation has developed between these two types of activity. Tarde himself sketches out this tendency: beauty-values must be integrated into the definition of wealth and artistic labor in the concept of labor, for “the love of what is beautiful, the greed for what is exquisite” are part of the “special” needs which exhibit great elasticity and therefore a wide opening for industry. Tarde even foresees that the luxury industry which in his day concerned only the upper classes—this was the only type of consumption which exhibited “special” needs—would, with the development of social needs, be substituted by “industrial art, decorative art, which could very well be destined for a most glorious future.” A few decades later, Walter Benjamin would come to the same conclusions, analyzing tendencies in industrial development and in productive activity based on cinematic production.

To close, if we wish to safeguard the specificity of European culture and its emancipatory potential, we can no longer rush to the defense of culture and its autonomy, for truth-values and beauty-values have become the motors of the production of wealth. The more we hand off the desire for a production and consumption that satisfy “organic” needs to a desire for production and consumption that satisfy increasingly “capricious” and “special” needs—of which one is the need to know—the more economic activities and even goods themselves integrate our truth-values (knowledge) and beauty-values. “Let us add the theoretical and aesthetic sides to all goods will become more and more developed—beyond, not despite their useful side.”

This conclusion might be read as catastrophic, for it demonstrates the real subordination of cultural and artistic production to economic imperatives. But it is a historical opportunity, even if we do not know to seize it. For here, perhaps for the first time in humanity’s history, artistic, intellectual and economic labor, on one hand, and the consumption of goods and appropriation of knowledge and beauty-values, on the other, demand to be regulated by the same ethics.

[Translated by Bram Dov Abramson <bram@tao.ca>.]

SUBJECT: HIGH-TECH WORKERS NEED TO UNIONIZE

FROM: REBECCA LYNN EISENBERG <MARS@BOSSANOVA.COM>
DATE: TUE, 18 AUG 1998 12:47:52 -0700

When programmers started emailing me over the past few weeks, begging me to denounce the Senate's recent decision to grant more work visas to foreign nationals seeking high-tech employment, I was loath to run to their defense. Computer programmers, it seemed to me, did not need my help. They complain about long hours, but arrive at work at noon. They complain about low pay, but earn twice the national average. They gripe about being forced to carry cell phones, yet get wireless service for free—not to mention stock options, top-notch health care, 401(k) plans and loaner laptop computers. Undereducated, overpaid, underage white males, they start new companies, hire their buddies and wake up millionaires à la Netscape's Marc Andreessen.

Surprisingly, in this case the programmers were right: The Senate H-1B visa decision did do them an injustice, but they still don't need my help. They need labor unions. If this debate over the so-called high-tech worker shortage does not stir them to organize, perhaps nothing else will. Unions for professional software engineers? The idea is not as crazy as it sounds. Although life for some programmers might look plush, many others sing the blues. Strong-armed to take options in lieu of paychecks, they are often left empty-handed when the business ultimately tanks, which it does in many cases. Meanwhile, the large paychecks paid by big software companies yield much more humble hourly wages when divided by the number of hours worked—without overtime pay, of course. Constantly pushed to publish products by unreasonably early deadlines, software engineers have grown accustomed to pulling strings of “all-nighters” near launch time, yet still are forced to release products before they're ready.

Perhaps most nefariously, as programmers grow older, their job security plummets. Any stroll through a high-tech company reveals that the work force is very young. Norman Matloff, computer science professor at UC-Davis, confirmed this common observation in an April report: Five years after finishing college, about 60 percent of computer science graduates are working as programmers; at fifteen years the figure drops to 34 percent, and at twenty years it's a mere 19 percent. A programmer described a conversation he overheard at a recent company event: “Age became an important topic of discussion at this midday meeting, and they decided that the oldest person in their section of the company was twenty-nine.” These observations are corroborated by Matloff's study: Most software companies classify programmers and systems analysts with six years of experience as senior even though they usually are no older than twenty-eight. Older employees are more expensive. Because they are more likely to have families, for example, their benefits cost more and they are less likely to tolerate eighty-hour work weeks than recent college graduates.

By the early eighties, women in the U.S. were 43 percent of the paid labor force. And 43 percent of all paid employed women were clerical workers. In the U.S., women were: 80 percent of all clerical workers 97 percent of all typists 99 percent of all secretaries 94 percent of bank tellers 97 percent of receptionists a majority of these jobs will be/are disappearing. In the U.S. women currently are: 31 percent of computer programmers 29 percent of computer systems analysts 16 percent of executive managers 92 percent of data entry operators 58 percent of production operators 77 percent of electronic assemblers these statistics are not changing fast. Black women in the U.S. are: 3 percent of corporate officers 14 percent have work disabilities 59 percent of all single mothers. How many of these jobs will disappear? At home all women are: 66 percent of married working mothers 100 percent of mothers 99 percent of child-care workers 99 percent of primary caregivers to the aged 83 percent of unpaid household workers 99 percent of domestic caretakers 99 percent of physical, emotional, and psychic human capital maintenance workers. In the electronic home will mothers become obsolete? In the electronic workplace will women become obsolete? [Wilding, Economy]

And while unemployment rates for older workers are high—17 percent for programmers over age fifty as of August, Matloff said, the numbers tell only part of the story. “I get rather annoyed at unemployment statistics,” the programmer said. “They might be talking about unemployment, but they are not talking about underemployment. Former high-tech people have long since exhausted their unemployment benefits or are employed at something that they did not expect to be doing at their age.” Meanwhile, he said, as a temporary employee “I have sat through meetings where managers go out of their way to report that they had hired new permanent employees, stressing that they would be working as soon as they had their visas straightened out. Politically it seemed very important for them to stress this.”

Is this because H-1B status employees would work more hours for less money? “That was my distinct impression,” he said. Would this programmer join a union? “I am not sure if ‘union’ *is* the right word, but I definitely think that something should be done,” he said. “Union” *is* the right word, said Amy Dean, chief executive director of the South Bay AFL-CIO Central Labor Council, which represents the interests of labor, both full-time and contingent, in Silicon Valley. “It always makes sense for working people to come together for purposes of bargaining collectively to improve their workplace situation.” Unions can provide job security for workers with seniority, which is essential for older workers in the youth-biased software industry, Dean said. “There is no question that the industry (is) looking at older workers as though they are disposable,” she said. “They have become too costly, and now after they have given the best of their lives to the company, the company decides that it is too expensive to keep them on board.” Additionally, unions could benefit workers of all ages by requiring companies to look internally or locally before hiring foreign workers on visas. If programmers were organized, Dean said, “They could insist on what portion of the company’s jobs go to people in-house, and they could insist that X percent of jobs be tagged for people that are already part of the company.” Furthermore, unions could convince companies to train workers, said Dean. “Workers would have means to sit down with the employers and say, ‘We think that there should be X number of dollars spent on training to bring us up and elevate our skill base so that we can apply to jobs being given to people from other parts of the world.’” “This H-1B visa issue is all about trying to undercut the wage and benefit rate of current American workers,” Dean said. With a union, technology workers could insist on a wage and benefit standard as opposed to allowing companies “to bring in workers that are going to undercut that standard.”

That’s fine for programmers who are employed full time, but traditionally unions have not been available for contingent workers, who, like the programmer above, work part time or are contracted to work on short- or long-term projects. Because contingent workers now comprise 27–40 percent of the Silicon Valley work force (and growing), according to the National Planning Association in Washington, D.C., the Central Labor Council is upgrading its services to serve them better. “We are building an organization that people will be able to join to receive benefits, including health and pension,” which independent contractors usually don’t get, Dean said. “It will also provide training and skills certification, and it will advocate within the

temporary-help industry to improve conditions for people who are working on a part-time or contingent basis.” While this approach is not traditional unionization, Dean conceded, “we know that in the new economy, we will need these new types of organizations.”

In the meantime, Dean urged all high-tech workers to vote against Proposition 226 on Tuesday. That proposed law, she said, would “eliminate the right of workers to bundle together their nickels and dimes to have a voice in the political process”—including opposing future attempts to bring in more foreign programmers. “If workers cannot combine their resources, they have no chance to stand up to big corporations and organized business,” which outspend labor eleven to one, Dean said. In all these ways and more, said Dean, “History shows that when people band together, they do better than they would if going it alone.” The software industry certainly knows the power of banding together—after all, it was the powerful lobbying efforts of its trade organization, the Information Technology Association of America (ITAA), that succeeded in pushing companies’ requests for more foreign labor through the Senate. Programmers—both young and old—deserve equally strong representation, which they can find in unions. If the industry is scared by the so-called high-tech worker shortage, imagine the persuasive power of engineers on strike.

[This text first appeared in the *San Francisco Examiner*.]

SUBJECT: THIS IS LONDON

FROM: SIMON POPE <ESCAPECOMMITTEE@COMPUSERVE.COM>

DATE: TUE, 8 SEP 1998 12:09:40 -0400

JOSH

Precocious small boy steps, jet-lagged, from Club Class. Self-contained under hood and high-TOG breathable future fabric. Self-reliance velcroed tightly into place, an outward manifestation of his prep-school motto—“You are alone. Trust no one.” It’s been a good year for Josh, extending his dad’s business into the nineties globe-trotting 007 execs dreaming of Suzie Wong morphed into transnational gotta-be Goldies dreaming of Jackie Chan flicks...

JUSTIN

Justin used to be an account manager up West with one of the big-noise, big-budget agencies. Eight years living a one man yuppie revival in the pristine post-Lloyds white tower would have tipped a more scrupulous man over the edge. Walking monochrome corridors, scoping for black-clad door-whores for a moments abrasion can seem futile, but leaving this cathedral dedicated to the power of spectacle would invoke an immediate “access denied” in the four-star staff canteen. But ground-zero approached fast. Why not steal a few clients and make a go of it? Everyday could be casual Friday. Imagine...wearing post-rave leisure wear to *work*. Cool.

“I’ve got the brains, you’ve got the looks. Let’s make lots of money,” as one of Justin’s favorite songs would have it. For brains they turned to Andy.

ANDY

Server-side back-end UNIX flavored mindfuck gives most web designers instant impotence and an overweening self-doubt. Not good for business let alone personal development. So all the black arts of CGI and increasingly Java are left to Andy. In most cultural and technological shifts, people like Andy aren’t the public face of the industry. Now is no exception. They are in no way “cool.” They like the same music as their older brothers and dress in whatever is on the floor and smells least like chip fat or the sweet, baked-bean sweat of teen-boys’ bedrooms. When this cycle of boom and bust is long forgotten, Andy will still have his head down and know the worth of a good ping program. Enough of Andy.

ADAM

The beads of sweat form on Adam’s artfully concealed but receding hairline, mirroring the gray rain as it slides asthmatically down the mildewed taxi window. Every journey home has been like this recently. A videotape plays and rewinds, caught in a frenzied loop, wearing his patience thin. Every dropout amplified. Each iteration reinforcing the feeling that trust has been misplaced. That saving your best work for your highest-profile client has not paid off. Art and Business. Like grape and grain. Start out on one. Don’t finish on the other. Four long years from version 3 through 6, slowly losing a grip on the point of it all. A time for change. Maybe re-invention is the only solution. Notting Hill. London. Home. Flipping his last tenpence piece, the severed monarch’s head floats, goading, mocking his situation. Only one thing left to do: just fucking phone Justin...

SUBJECT: GOING AT DIFFERENT SPEEDS: ACTIVISM IN THE GARMENT AND INFORMATION SECTORS

FROM: ANDREW ROSS <AR4@IS.NYU.EDU>

DATE: THU, 10 SEP 1998 17:39:15 +0200

Suck, the irreverent daily webzine in San Francisco, cunningly revealed that the staff of *Wired* magazine occupied a floor in a building full of garment sweatshops. Suddenly, with this revelation, the century-long gulf between the postindustrial high-tech world, for which *Wired* is the most glittering advertisement, and the pre-industrial no-tech world, appeared to have dissolved. In New York City, this kind of juxtaposition between nineteenth-century and the twenty-first-century is fairly common, where the ragged strip of Silicon Alley—New York’s concentrated webshop sector—cuts through areas of old industrial loft space that were once, and are again, home to the burgeoning sweatshop sector of the garment industry. Many of the webshops, those much-romanticized laboratories of the brave new future, are housed

nextdoor to garment sweatshops where patterns of work for large portions of the immigrant population increasingly resemble those in the early years of the century, before industrial democracy and progressive taxation and the welfare infrastructure (modern industrial relations, in short) were adopted into law. In recent years, we have seen the return of the sweatshop to the central city core (in fact, the sweatshop was never eradicated, it was simply driven further underground or overseas). Full media disclosures about these sweatshops of the sort we have seen in the last few years summon up the misery and filth of turn-of-the-century workplaces, plagued by chronic health problems and the ruthless exploitation of immigrants. Indeed, the repugnance attached to the term *sweatshop* commands a moral power, second only to slavery itself, to rouse public opinion into a collective spasm of abhorrence.

As it happens, the juxtaposition of technocultures in today's two-tier global cities is also strikingly similar to workplaces at the turn of the century. Then, the sweatshop's primitive mode of production and the cutter's artisanal loft co-existed with semiautomated workplaces that would very soon industrialize into economies of scale under the pull of the Fordist factory ethic. Today, the sewing machine's foot pedal is still very much in business—though competing not with steampower but with the CPU, which, at the higher end of the garment production chain, governs Computer-Assisted Design and facilitates fast turnaround. The sewing machine has barely changed in almost a hundred and fifty years, which makes it quite unique in terms of industrial history. Because of the physical limpness of fabric, there is a portion of garment production that cannot be fully automated and so requires human attention to sewing and stitching and assembly—hence the demand for cheap labor. As a result, underdeveloped countries usually begin their industrialization process in textiles and apparel, because of the low capital investment in the labor-intensive end of production.

There are many reasons for the flourishing of garment sweatshops, both in poor countries and in the old metropolitan cores: regional and global free-trade agreements, the advent of universal subcontracting, the shift of power away from manufacturers and toward large retailers, the weakening of the labor movement and labor legislation, and the transnational reach of fashion itself, especially among youth. The international mass consumer wants the latest fashion post-haste requiring turnaround and flexibility at levels that disrupt all stable norms of industrial competition.

Public awareness of the conditions of low-wage garment labor is relatively advanced, even if the public tends to ignore that fact that much clothing is made illegally and in atrocious conditions. The antisweatshop campaigns of recent years—in the last two years they have been very visible and vocal in American mediaspace—would not have been so successful if people did not, however grudgingly, acknowledge that their personal style in clothing comes at a price for low-wage workers. The challenge now lies in making an impact at the point of sale, that is, reforming consumer psychology to the level at which criteria of style, quality, and affordability are all well served by appeals to the advantages of paying a living wage. We are much further forward than anyone could have imagined just a few years ago.

The same cannot be said of high technology. The gulf between the fashion catwalk and the garment sweatshop is nowhere near as great as the gulf between the high-investment glitz and the heady cultural capital of the digerati at the top of the cyberspace chain and the electronic sweatshops at the bottom. Why? Even if we cannot answer this question, it is worth asking. Cyberspace, for want of a better term to describe the virtual world of digital communication and commerce, is not simply a libertarian medium for free expression and wealth accumulation. It is a labor-intensive workplace. Masses of people work in cyberspace, or work to make cyberspace possible, a fact that receives virtually no recognition from cyberlibertarian digerati like John Perry Barlow or Kevin Kelly, let alone the pundits and industrialists who are employed to uphold the rate of inflation of technology stocks. Indeed, it's fair to say that most information professionals have little sense of the material labor that produces their computer technologies, nor are they very attentive to the industrial uses to which these technologies are put in the workplaces of the world. This is understandable, though not excusable, when these sectors are remote and invisible, on the other side, as it were, of the international division of labor. But it is difficult to exonerate the neglect of working conditions that lie at the heart of the cyberspace community itself, within the internet industries. Like all other sectors of the economy, these industries have been penetrated by the low-wage revolution—from the janitors who service Silicon Valley in California to the part-time programmers and designers who service Silicon Alley in New York. Just as Silicon Valley once provided a pioneering model for flexible postindustrial employment, Silicon Alley may be poised to deliver an upgrade. My own research on Silicon Alley was done in the fledgling years of 1996 and 1997 at a time when the webshops also produced independent webzines, or some form of independent publishing of creative outlet. These operations had different functions for different companies, they employed artists and writers who might have been otherwise warehoused in graduate seminars, and they promised a reasonable return on cultural labor. Most of these shops are now defunct. At this point, this independent sector has almost entirely been displaced by MBAs, the venture capitalists, and angel-seeking entrepreneurs. On Silicon Alley the current cliché is “Content is Dead.”

At any rate, cultural labor in new media, no less than in the arts or education, is subject to what I call the Creative, wherein our labor is undercompensated because of the invisible wages that come in the form of psychological rewards for personally satisfying work. It is a legacy of the Romantic concept of the artist as separate from the world of trade, and whose activities were unsullied by matters of commerce. At a time when nobody seems immune to the plague of low-wage labor, it's important that artists, educators, writers and designers see this discount arrangement for what it is—exploitation of the prestige of cultural work to drive down wages in a market where the labor supply always outstrips demand.

If Silicon Alley's new media sector gives birth to a new kind of culture industry, it is not likely to be a mass media industry, nor will its impact necessarily lie in the realm of leisure or entertainment. Unlike the culture industries of radio, film, TV, recording, fashion, and advertising, which had their start

in the Age of the Machine, the work environment of new media is entirely machine-based, and labor-intensive in ways that are now the legends of cyberspace. “Voluntary” overtime—with twelve-hour workdays virtually mandatory—is a way of life for those in the business of digital design, programming, and manipulation. The fact is, new media technologies have already transformed our work patterns much more radically than they are likely to affect our leisure hours, just as information technologies have already played a massive role in helping to restructure labor and income—effectively reorganizing time, space, and work for mostly everyone in the developed world. We are seeing the dawn of new forms of leisure time governed by labor-intensive habits tied to information technology.

All of us probably want our computers to go faster, and yet most of the people who work with computers already want them to go slower. Information professionals are used to thinking of themselves as masters of their work environment, and as competitors in the field of skills, resources, and rewards. Their tools are viewed as artisanal: they can help us to win advantage in the field if they can access and extract the relevant information and results in a timely fashion. In such a reward environment, it makes sense to respond to the heady promise of velocification in all of its forms: the relentless boosting of chip clock speed, of magnification of storage density, of faster traffic on internet backbones, of higher baud rate modems, of hyperefficient database searches, and rapid data-transfer techniques. A common repertoire of industrial, design and internet user lore binds us together and reinforces our (para) professional esprit de corps; but this shared culture also tends to disconnect us from the world of more traditional work.

In the other world, the speed controls of technology serve to regulate workers. These forms of regulation are well documented: widespread workplace monitoring and software surveillance, where keystroke quotas and other automated measures are geared to time every operation, from the length of bathroom visits to the output diversions generated by personal email. Occupationally, this world stretches from the high-turnover burger-flippers in MacDonaldis and the offshore data-entry sweatshops in Bangalore and the Caribbean to piecework professionals and adjunct brainworkers and all the way to the upper-level white-collar range of front-office managers, who complain about their accountability to inflexible productivity schedules. It is characterized by chronic automation, the global outsourcing of low-wage labor, and the wholesale replacement of decision-making by expert systems and smart tools; it thrives on undereducation, undermotivation, and underpayment; and it appears to be primarily aimed at the control of workers, rather than at tapping their potential for efficiency, let alone their ingenuity (B. Garson, *Electronic Sweatshop*, NY: Simon and Schuster, 1988).

Some of you will object to my crude separation of these two technological environments. Putting it this way encourages the view that it is technology that determines, rather than simply enables, this division of labor. This objection is surely correct. It is capitalist reason, rather than technical reason, which underpins this division, although technology has proven to be an infinitely ingenious means of guaranteeing and governing the uneven development of labor and resources. Let me therefore revise, or qualify my origi-

nal assertion. I won't reject it because I believe it barely needs to be proven that for a vast percentage of workers, there is simply nothing to be gained from going faster; it is not in their interests to do so, and so their ingenuity on the job is devoted to ways of slowing down the work regime, beating the system, and sabotaging its automated schedules. It is important, then, to hold onto the observation that complicity with, or resistance to, acceleration is an important line of demarcation. But equally important is the principle of *speed differential*, because this is the primary means of creating relative scarcity—the engine of uneven development in the world economy.

Commodities, including parcels of time, accrue value only when they are rendered scarce. Time scarcity has been a basic principle of industrial life, from the infamous tyranny of the factory clock to the coercive regime of turnaround schedules in the computer-assisted systems of just-in-time production. It is a mistake again to hold the technologies themselves responsible: the invention of the clock no more made industrialists into callous exploiters of labor than it made Europeans into imperialist aggressors. But capitalism needs to manufacture scarcity; indeed, it must generate scarcity before it can generate wealth.

Ivan Illich pointed this out in his own way in his essays on *Energy and Equity* (NY: Harper and Row, 1974), when he noted that the exchange value of time becomes a major economic component for a society at a point where the mass of people are capable of moving faster than 15 mph. A high-speed society inevitably becomes a class society, as people begin to be *absent* from their destinations, and workers are forced to earn so much to pay to get to work in the first place (in high-density cities where mass transportation is cheap, the costs are transferred to rent). Anyone moving faster must be justified in assuming that their time is more important than those moving more slowly. "Beyond a critical speed," Illich writes, "no one can save time without forcing another to lose it" (30). If there are no speed limits, then the fastest and most expensive will take its toll in energy and equity on the rest: "the order of magnitude of the top speed which is permitted within a transportation system determines the slice of its time budget that an entire society spends on traffic" (39).

Illich's (and others') commentaries on the emergence of speed castes from monospeed societies have progressively refined our commonsense perception that the cult of acceleration takes an undue toll upon all of our systems of equity and sustainability: social, environmental, and economic. You don't have to subscribe to the eco-atavistic view that there exists a "natural tempo" for human affairs, in sync with, if not entirely decreed by the biorhythms of nature, to recognize that the temporal scale of modernization may not be sustainable. Faster speeds increase a society's environmental load at an exponential rate. The lightning speed at which financial capital now moves can have a disastrous effect upon the material life and landscape of entire societies when regional markets collapse or are put in crisis overnight. The depletion of nature is directly tied to the degree to which the speed of capital's transactions creates shortages and scarcity in its ceaseless pursuit of accumulation. Regulation of social and economic speed in the name of selective slowness seems to be a sound, and indisputable, path of advocacy.

But it is important to bear in mind that state and World Bank economists already practice such regulation, when they decide to “grow” economies at a particular speed in order to control the inflation specter and when they impose recessionary measures upon populations in order to enforce pro-scarcity or austerity measures. It may be crucial to remember that only those going fastest possess the privilege to decide to go slower, along with the power to make others decelerate.

If we go a little further down the chain of production, we find ourselves in the semiconductor workplaces, which are a different species of electronic sweatshop. In these factories, the hazards to labor and to the environment are greater than almost any other industrial sector. Semiconductor manufacturing uses more highly toxic gases than any other industry, its plants discharge tons of toxic pollutants into the air, and use millions of gallons of water each day; there are more groundwater contamination sites in Silicon Valley than anywhere else in the U.S. Semiconductor workers suffer industrial illnesses at 3 times the average for other manufacturing jobs, and studies routinely find significantly increased miscarriage rates and birth defect rates among women working in chemical handling jobs. The more common and well-documented illnesses include breast, uterine, and stomach cancer, leukemia, asthma, vision impairment, and carpal tunnel syndrome. In many of these jobs, workers are exposed to hundreds of different chemicals and over 700 compounds that can go into the production of a single workstation, destined for technological obsolescence in a couple of years—12 million computers are disposed of annually, which amounts to 300,000 tons of electronic trash that are difficult to recycle. The “dirtier” processes of hightech production are generally located in lower-income communities and communities of color in the U.S. and throughout the Third World, augmenting existing patterns of environmental and economic injustice. Through the Campaign for Responsible Technology, an international network is now being formed to make links with local labor, environmental, and human rights groups around the world. Much of the groundwork for this was laid at a recent European Work Hazards convention in Holland, which brought together activists with the common goal of holding companies to codes of conduct through the acceptance of independent workplace monitoring. Because transnational companies tend to export hazards to countries where labor is least organized, clearly, a global strategy is needed.

Such a campaign should build on the successes of the antisweatshop campaigns in organizing coalitions among labor, human rights, and interfaith groups around the world. These non-governmental coalitions have offered a model of how to organize across national borders in an age of free trade—organized labor. As in the fashion world, the integrity of a company’s brand name is all-important, and its chief point of vulnerability—the weak link in the chain of capital. Companies must keep their brand names clean, because it is often the only thing that distinguishes their product from that of their market competitors; if that name is sullied, it does not matter whether they use the cheapest labor pool in the world. There is no reason why the brand names of AT&T, Phillips, Intel, IBM, Hewlett-Packard, Toshiba, Samsung, and Fujitsu cannot be publicly shamed in the same way as Nike,

I'm the Total Quality woman. I am the culturally engineered, downsized, outsourced, teleworked, deskilled, Taylorized mom, just-in-time, take-out, time-saving, time-starved, emotionally downsized, downright tired... My home is my work, my work is my home. I work with machines; I live with machines; I love with machines; computer, modem, TV, VCR, printer, scanner, refrigerator, washing machine, dryer, vacuum cleaner, cars telephones, fax machine, hairdryer, vibrator, CD player, radio, pencil sharpener, blender, mixer, toaster, microwave, cell phone, tape recorder... [Wilding, Economy]

The Gap, Guess, and Disney. So, too, it is important not to underestimate public outrage. Far from apathetic, public concern has been inflamed by revelations about labor abuses in the industrialized and nonindustrialized world, where workers are physically, sexually and economically abused to save 10¢ on the cost of a pricey item of clothing. Unlike clothing, consumption of high-tech goods is not yet a daily necessity; but increasingly it is becoming a market in the range of household items. The planned expansion of the semiconductor industry is massive, and will outstrip most other industrial sectors. Very soon, the high-tech market will be within the orbit of consumer politics on the scale of boycott threats, and so many of the strategies of the garment campaigns will make more sense.

In concluding, perhaps it is worth considering why so little attention is paid to these labor issues in the flood of commentary directed at cyberspace. One reason certainly has to do with the lack of any tradition of organized labor in these industries. The fight against the garment sweatshop was a historic milestone in trade union history, and gave rise to the first accords on industrial democracy. Likewise, the recent campaigns have been on the leading edge of the resurgent labor movement, at least in the U.S. Nothing comparable exists in the high-tech workplaces of the new information order. Indeed, high-tech industry lobbyists have been leaders in efforts to undermine the existing protections of labor laws. A second reason has to do with the ideology of the clean machine: in the public mind, the computer is still viewed as the product of magic, not of industry. It is as if computers fall from the skies, and they work in ways that are beyond our understanding. The fact that we can repair our car but not our computer does not help. As a result, the manufacturing process is obscured and mystified. A third reason probably has to do with the utopian rhetoric employed by the organic intellectuals and pundits of cyberspace. Take Kevin Kelley's influential book, *Out of Control*, five hundred pages of heady ruminations about the biologizing of the machine, the death of centralized, top-down control, webby nonlinear causality, the superorganic consciousness of swarmware, and so on. Nowhere is there any mention of the "second world" I described earlier—the low-wage world of automated surveillance, subcontracted piecework, crippling workplace injuries, and the tumors in the livers of chip factory workers. Nowhere is there any recognition of the global labor markets—with their cruel outsourcing economies—that provide the manufacturing base for the new clean machines. His book is not an exception. There is a complete and utter gulf between the public philosophizing of the whizkid new media designers, artists, and entrepreneurs and the global sourcing of low-wage labor enclaves associated with the new information technologies. Boosters like Kelley speak of an ethic of "intelligent control" emerging from the use of the new media. The term is hauntingly accurate, because it evokes a long history of managerial dreams, on the one hand, and automated intelligence on the other. How you feel about this ethic may ultimately depend on which side of the division of labor you find yourself.

Again, the problem lies not with the technologies themselves, nor, ultimately, with their operating speed. It *is* possible to have an affordable, sustainable media environment without electronic sweatshops, just as it is possible to have

a sustainable world of fashion without garment sweatshops. But as long as we keep one realm of ideas apart from the experience of the other, people simply will not make the connections between the two. I find this lack of impetus striking, especially among new media professionals themselves, who are well positioned to mediate, and act accordingly. There has been a good deal of attention to labor conditions facing multimedia artists and other new media professionals, and, at least in the realm of software, there is some sense that their self-interest and expertise carries some weight, but this has not been extended to the conditions of production of hardware. It is surely important to see those conditions on a continuum, and to think beyond the self-interest of this group of software experts, for whom the sick jokes about HTML sweatshops belong to a gallows humor they can afford but others cannot. The successes of anti-sweatshop garment organizing have come as a surprise to many seasoned activists, long accustomed to being shut out of the media, to the stony indifference of the public, and to the cruel march of corporate armies across the killing fields of labor. In the case of information technology, the time is ripe for capitalizing on the climate for such successes. Perhaps we can exercise a little foresight, and anticipate the public appetite for responding to such abuses. The history of the internet should remind us that nothing is impossible, and what was unimaginable three years ago is a fact of life today.

[Edited by Ted Byfield and Diana McCarty.]

SUBJECT: CORPORATE COOL: LIFE ON ONE OF AOL'S CHANNELS

FROM: HIDDENSTAIR@YAHOO.COM (ROBIN BANKS)

DATE: THU, 17 SEP 1998 10:

Deep in the heart of the Northern Virginia suburbs outside Washington, D.C., in an arena at George Mason University, the stage is dark when the blues band starts. The space, usually used for college basketball games and pop concerts, is filled this afternoon with casually dressed but wholesome-looking young adults, as it might be any evening. But today, each attendee wears a photo ID badge around the neck.

The band plays faster and faster down below now they're rendering the Blues Brothers movie theme as the purple-and-white lights crescendo. Two figures get out of a police car parked on the arena's floor. The figures wear sunglasses and fedoras, but it's clear once they get out and run onstage to roaring applause: These cleanshaven, tidy-haired corporate men ain't no Blues Brothers.

More like the khaki brothers. But, like the Blues Brothers, the khaki brothers are On a Mission. And they're full of conviction that that mission: running the America Online empire makes them cool. One, Bob Pittman, co-founded behemoth teen tastemaker MTV and moved on to head middle-

IT is now the single biggest part of the U.S. economy, 11 percent of the GNP. Globalization. Free-trade zones. The market Economy. Bye-bye borders. There is no place to hide. Knowledge management: Husbandry for ideas. Mass customization: The market of you. Just-in-time learning: knowledge at your fingertips. [Wilding, Economy]

American real-estate franchiser Century 21 before bringing his mass-market sensibilities to AOL, where he is now president. The other, Steve Case, spent his tender years as a pizza designer for Pizza Hut before founding the online service that would become the world's largest. He is now its chairman, and thus he is the idol of a thousand young hopefuls in the corporate ranks.

Welcome to America Online's annual "all-hands meeting and beer bash." Welcome! It's the word on the free pen they give you at orientation on your first day at work, and it's the word your computer will chirp when you log on for the last time the day you quit and they kill your account.

AOLers-as-missionaries is today's theme, hence the Blues Brothers reference. Steve Case is shouldering the old white man's burden: to give the masses what he sees fit for them (and thereby, it goes without saying, reaping enormous profits). He's doing it in his usual uniform of denim AOL-logo shirt and khakis. Oh-so-casual yet painstakingly bland, it's a look much emulated around the AOL "campus" by twenty- and thirty-something male employees who, like their female counterparts, drive BMWs with vanity plates to work, where they sit at desks covered in Beanie Babies inside cubicles decorated with "cool" ads.

Things not well branded are not held in high esteem here. The hip image aimed for at the Blues Brothers beer-bash meeting is less successful, less cleanly orchestrated, down the food chain. "Cool," says a manager, "rock and roll." "He is addressing his underlings, ten or twenty young adults, as they sit around a conference room table. They are some of the legions who program the content onto AOL's colorful, ad-plastered screens. They're wearing jeans, T-shirts, the odd tattoo. The unwincing twenty- and thirty-something employees are clearly used to the casually misbegotten nuggets of slang liberally tossed into the newspeak.

All statements are positive, "win-win." Talk at this meeting, held by one of AOL's "creative" departments, largely revolves around how the department is going to hold up its end of sweetheart contracts with other corporations. Such deals, a hefty cornerstone of AOL's strategy, usually amount to the sale of a piece of AOL's heavily trafficked cyberspace to another corporation wishing to park its content, ads, or website connections where AOL's twelve million "members" will see them. The terms of sale, lease, or trade vary widely; sometimes AOL pays, sometimes the other party. Meetings and mass-email messages mandate how best to serve these corporate "partners," or dictate new conditions tacked onto their contracts.

These meetings also sometimes touch on how AOL can better deliver its other product—a "quality member experience"—to its other customers. It's the usual commercial media equation: selling a product to an audience + selling that audience to advertisers = profit. That might not come as a shock to anyone who spends time clicking around the service, trying to find something to read behind the promotional teasers scattered everywhere.

These employees stick this content up on AOL's screens after it is produced elsewhere, text and picture, by another corporation's employees far away in some other hive. AOL has chosen to make contracts with dozens of magazines, wire services, television networks and reference-book companies in lieu of paying writers, editors, and photographers to produce original coverage.

Such convenience of access has its benefits, if this is the kind of thing you want to read. But a visit to the public library gets you much of the same product for free: *Entertainment Weekly*, *Newsweek*, *Compton's*, except without the email account.

Like the all-hands spectacle, the departmental meeting is more briefing than discussion. The manager tends to rattle off names of fellow managers, in-house acronyms and project code words unIntroduced. But none of the Gen-X attendees are playing Buzzword Bingo under the table. It's a sad, but familiar, lack of solidarity among the drones.

Stock options, which even entry-level content programmers get, usually vest after the first year of employment at AOL. Funnily enough, after exactly that length of time, many people are out the door. But "creatives" are probably easy to replace. The fields that more traditionally employ them are notorious for their starvation wages, and AOL's money and benefits sound comparatively good during the interview. And they would be, if more job satisfaction came with them.

Plenty of staffers say they're demoralized by micromanagement and chronic understaffing. So they end up fighting each other over time off and who will do that last extra chore. *Smile, smile, wink, wink*, go the bosses' emoticons in their "instant messages," via which they drop orders on their swamped underlings even as those underlings type furiously. Thanks to the wonderful AOL medium of "IMs," the boss needn't look into the employee's harried eyes before s/he delivers the instructions; s/he needn't even be in the office. An IM is a small, temporary chat window that pops up on the screen of the person you send it to, if they're online. Wonderful invention for people miles apart. Bad invention for people separated by a cubicle wall, a few feet and a chasm of misunderstanding.

Interdepartmental communication got the worst marks on AOL's employee survey this year and last year. But communication with direct colleagues—the people one has to see every day—makes all the difference to an employee's morale and quality of life. The "interactive media" jobs at this "network" company are done by individuals sequestered alone and working frenetically in high-walled cubicles (which AOL calls "pods") and, in some cases, at staggered times of day and night. As long as workers are kept apart, people can't exchange information on a broad enough scale to realize it's not just their personal failure to fit in that's making their job suck.

The old-fashioned network that internet employees could most benefit from, the labor union, is explicitly discouraged in the AOL employees' handbook. "We know you are more than just an AOL employee. You're an individual and deserve to be treated as such... We feel it is not in the best interests of you or the company to participate in union activities. Instead, speak for yourself—directly with management." AOL's antiunion shop depends on the anticollective attitude of the young members of the specialist class who grew up under Reagan. If you come straight to Daddy instead of falling in with those bad other kids, we'll work something out. But don't dare go behind our backs. We know you wouldn't; we expect your loyalty. And, anyway (appealing here to computer-geek arrogance), you, alone, are your own best representative. Not only does big daddy expect you not to need unions, you'd also

better not expect any coddling and handholding from him. You work for a “cool company,” don’t you? What could you have to complain about? This is where the mandatory “performance management workshops” come in. Here, workers are drilled to internalize the “management” of their own “performance.” This means, roughly summarized: Set your own goals, but make sure they match up with the company’s “core values,” or you’d best find another company. And if you need more or less supervision from your boss, tell him or her so. It’s that easy. The workshops are softened up with Dilbert cartoons, which are served without a trace of irony.

Many employees complain of AOL’s workaholism. Low-level employees are expected to go the extra mile, but at a tiny fraction of the starting pay of other professions, which require a slavish dedication to, for example, medicine or the law. The reward? None is suggested; apparently, you’re supposed to feel privileged just to work here. “There’s a gym,” one worker says, “but I can’t go because nobody in my group takes an hour for lunch. “That contrasts starkly with the employee handbook’s assurance that AOL has the gym because it cares about your physical well-being. One thing AOL does use the gym for is to parade middle-aged male visitors in suits through on their tours of the headquarters as young employees work out on the stair machines.

Meanwhile, as one-year anniversaries roll around and people quit, more hopeful B.A.s are bought off with a handful of stock options that sound great but wouldn’t pay off a year’s college loans. In the information sweatshop economy, a four-year degree is required for the lowliest administrative job. And people with advanced degrees and specialized computer training can make less in real dollars than, say, dropouts who worked in box factories did in 1974. As the U.S. work force solidifies into two camps, rich and poor, what gold there was in them thar silicon hills has pretty much already been claimed.

But there are a few happy faces rushing through AOL’s corridors, carrying cafeteria-made wrap sandwiches and Starbucks mochas back to their desks. White male faces, mostly, attached to bodies dressed in Dockers and pressed shirts. To them, working here is apparently fat city. Most are, or think they are, on the management track. And at least a few are on a smug, egregious class climb, bragging about wine, resorts, cars, and boats. For all their lip service to “new media,” these typical middle-management types are planted firmly on the creaky old corporate ladder.

They might want to think twice about their loyalty. It’s common knowledge that for its users, AOL’s happy-face icons mask buggy software, slow connections, and overloaded modems. And inside the company, underneath the cheap strokes of occasional keg parties, mass-emailed words of thanks, and management mumbojumbo, the company invests about as much in its wetware as it does in its semidisposable software and hardware. Both as a mass producer of adfotainment and as a “corporate culture,” AOL represents the cynical exploitation of the lowest common denominator. Meet the new media corporation, same as the old corporation but with more ads and less content.

But what else is new? It must be remembered that AOL is not unique or even remarkable. Indeed this corporation is no worse than most others, and prob-

ably better than many (no piss testing for one thing).

Still, when you walk out of the former aircraft hangar, through the glossy, soaring lobby decorated with friendly icons and away from the endless rat-maze cubicles tucked away behind, you'll probably say without too many regrets, and as cheerily as AOL's logoff farewell: *Goodbye!*

SUBJECT: BACK TO THE FUTURE: A PORTABLE DOCUMENT

FROM: ANTONIO NEGRI

DATE: THU, 15 OCT 1998, 04:54:42 -0300

WORK

There is too much work because everyone works, everyone contributes to the construction of social wealth, which arises from communication, circulation, and the capacity to coordinate the efforts of each person. As Christian Marazzi says, there is a biopolitical community of work, the primary characteristic of which is “disinflation”—in other words, the reduction of all costs that cooperation itself and the social conditions of cooperation demand. This passage within capitalism has been a passage from modernity to postmodernity, from Fordism to post-Fordism. It has been a political passage in which labor has been celebrated as the fundamental matrix of the production of wealth. But labor has been stripped of its political power. The political power of labor consisted in the fact of being gathered together in the factory, organized through powerful trade union and political structures. The destruction of these structures has created a mass of people that from the outside seems formless—proletarians who work on the social terrain, ants that produce wealth through collaboration and continuous cooperation. Really, if we look at things from below, from the world of ants where our lives unfold, we can recognize the incredible productive capacity that these new workers have already acquired. What an incredible paradox we are faced with. Labor is still considered as employment; that is, it is still considered as variable capital, as labor “employed” by capital, employed by capital through structures that link it immediately to fixed capital. Today this connection—which is an old Marxian connection, but before being Marxian it was a connection established by classical political economy—today this connection has been broken. Today the worker no longer needs the instruments of labor, that is, the fixed capital that capital furnishes. Fixed capital is something that is at this point in the brains of those who work; at this point it is the tool that everyone carries with him- or herself. This is the absolutely essential new element of productive life today. It is a completely essential phenomenon because capital itself, through its development and internal upheavals, through the revolution it has set in motion with neoliberalism,

Just-in-time conception, just-in-time production, just-in-time delivery, just-in-time assembly, just-in-time laundry, just-in-time dinner, just-in-time child-care, just-in-time quality time, just-in-time sex, just-in-time pleasure, just-in-time pain, just-in-time stress, just-in-time insanity, just-in-time sacrifice, just-in-time drugs, just-in-time death. [Wilding, Economy]

with the destruction of the welfare state, “devours” this labor power. But how does capital devour it? In a situation that is structurally ambiguous, contradictory, and antagonistic. Labor is not employment.

The unemployed work, and informal or under-the-table labor produces more wealth than employed labor does. The flexibility and mobility of the labor force are elements that were not imposed either by capital or by the dissolution of the welfarist or New Deal-style agreements that dominated politics for almost half a century. Today we find ourselves faced with a situation in which, precisely, labor is “free.”

Certainly, on one hand, capital has won; it has anticipated the possible political organizations and the political “power” of this labor. And yet, if we look for a moment behind this fact without being too optimistic, we also have to say that the labor power that we have recognized, the working class, has struggled to refuse factory discipline. Once again we find ourselves faced with evaluating a political passage, which is historically as important as the passage from the Ancien Régime to the French Revolution. We can truly say that in this second half of the twentieth century we have experienced a passage in which labor has been emancipated. It has been emancipated through its capacity to become immaterial and intellectual, and it has been emancipated from factory discipline. And this presents the possibility of a global, fundamental, and radical revolution of contemporary capitalist society. The capitalist has become a parasite, but not a parasite in classical Marxist terms—a finance capitalist—rather, a parasite insofar as the capitalist is no longer able to intervene in the structure of the working process.

BRAIN-MACHINE

Clearly when we say that the working tool is one that workers have taken away from capital and carry with themselves in their lives, embodied in their brains, and when we say that the refusal of work has won over the disciplinary regime of the factory, this is a very substantial and vital claim. In other words, if labor and the tool of labor are embodied in the brain, then the tool of labor, the brain, becomes the thing that today has the highest productive capacity to create wealth. But at the same time humans are “whole;” the brain is part of the body. The tool is embodied not only in the brain but also in all the organs of sensation, in the entire set of “animal spirits” that animate the life of a person. Labor is thus constructed by tools that have been embodied. This embodiment, then, envelops life through the appropriation of the tool. Life is what is put to work, but putting life to work means putting to work what exactly? The elements of communication of life. A single life will never be productive. A single life becomes productive, and intensely productive, only to the extent that it communicates with other bodies and other embodied tools. But then, if this is true, language, the fundamental form of cooperation and production of productive ideas, becomes central in this process.

But language is like the brain, linked to the body, and the body does not express itself only in rational or pseudo-rational forms or images. It expresses itself also through powers, powers of life, those powers that we call affects. Affective life, therefore, becomes one of the expressions of the incarnation

of the tool in the body. This means that labor, as it is expressed today, is something that is not simply productive of wealth: it is above all productive of languages that produce, interpret, and enjoy wealth, and that are equally rational and affective. All this has extremely important consequences from the standpoint of the differences among subjects. Because once we have stripped from the working class the privilege of being the only representative of productive labor, and we have attributed it to any subject that has this embodied tool and expresses it through linguistic forms, at this point we have also said that all those who produce vital powers are part of this process and essential to it. Think for example of the entire circuit of the reproduction of labor power, from maternity to education and free time—all of this is part of production. Here we have the extraordinary possibility of reanimating the pathways of communism, but not with a model of the rationalization and acceleration or the modernization and supermodernization of capitalism.

We have the opportunity to explain production and thus organize human life within this wealth of powers that constitute the tool: languages and affects.

THE BECOMING-WOMAN OF LABOR

With the concept of “the becoming-woman of labor” you can grasp one of the most central aspects of this revolution we are living through. Really, it is no longer possible to imagine the production of wealth and knowledge except through the production of subjectivity, and thus through the general reproduction of vital processes. Women have been central in this. And precisely because they have been at the center of the production of subjectivity, of vitality as such, they have been excluded from the old conceptions of production. Now, saying “the becoming-woman of labor” is saying too much and too little. It is saying too much because it means enveloping the entire significance of this transformation within the feminist tradition. It is saying too little because in effect what interests us is this general transgressive character of labor among men, women, and community. In fact, the processes of production of knowledge and wealth, of language and affects, reside in the general reproduction of society. If I reflect back self-critically on the classical distinction between production and reproduction and its consequences, that is, on the exclusion of women from the capacity to produce value, economic value, and I recognize that we ourselves were dealing with this mystification in the classical workerist tradition, then I have to say that today effectively the feminization of labor is an absolutely extraordinary affirmation; because precisely reproduction, precisely the processes of production and communication, because the affective investments, the investments of education and the material reproduction of brains, have all become more essential.

Certainly, it is not only women that are engaged with these processes; there is a masculinization of women and a feminization of men that moves forward ineluctably in this process. And this seems to me to be extremely important.

MULTITUDE

Some historical clarification is needed here. The term multitude is a pejora-

tive, negative term that classical political science posed as a reference point. The multitude is the set of people who live in a society and who must be dominated. Multitude is the term Hobbes used to mean precisely this. In all of classical, modern, and postmodern political science the term multitude refers to the rabble, the mob, and so on. The statesman is the one who confronts the multitude that he has to dominate. All this came in the modern era before the formation of capitalism. It is clear that capitalism modified things, because it transformed the multitude into social classes. In other words, this division of the multitude into social classes fixed a series of criteria that were criteria of the distribution of wealth to which these classes were subordinated according to a very specific and adequate division of labor. Today, in the transformation from modernity to postmodernity, the problem of the multitude reappears.

To the extent that social classes as such are falling apart, the possibility of the self-organizational concentration of a social class also disappears. Therefore we find ourselves faced again with a set of individuals, but this multitude has become something profoundly different. It has become a multitude that, as we have seen, is an intellectual grouping. It is a multitude that can no longer be called a rabble or a mob. It is a rich multitude. This makes me think of Spinoza's use of the term multitude because Spinoza theorized from the perspective of that specific anomaly that was the great Dutch republic, which Braudel called *the center of the world*, and which was a society that had mandatory education already in the seventeenth century. This was a society in which the structure of the community was extremely strong and a form of welfare existed already, an extremely widespread form of welfare. A society in which individuals were already rich individuals. And Spinoza thought that democracy is the greatest expression of the creative activity of this rich multitude. Therefore, I think of Spinoza's use of the term, which had already reversed the negative sense of the multitude, like the wild beast Hegel called it, which has to be organized and dominated. And this rich multitude that Spinoza conceived instead is the real counterthought of modernity, in that line of thought that goes from Machiavelli to Marx, of which Spinoza forms more or less the center, the central apex, the transition point; ambiguous, anomalous, but strong. Well, this concept of the multitude is the concept that we invoked before. There exists today a multitude of citizens, but saying "citizens" is not sufficient because it simply defines in formal and juridical terms the individuals that are formally free. You have to say rather that today there exists a multitude of intellectual workers, but even that is not enough. You have to say: there exists a multitude of productive instruments that have been internalized and embodied in subjects that constitute society. But even this is insufficient. You have to add precisely the affective and reproductive reality, the need for enjoyment. Well, this is the multitude today. Therefore, a multitude that strips every possible transcendence from power, is a multitude that cannot be dominated except in a parasitic and thus brutal way.

THE BIOPOLITICAL ENTREPRENEUR

Here too, as usual, we are dealing with a sphere in which all the terms have been inverted—direct terms. We must really succeed in inventing a different

language, even when we speak of democracy and administration. What is the democracy of biopolitics? Clearly it is no longer formal democracy, but an absolute democracy, as Spinoza says. How long can such a concept still be defined in terms of democracy? In any case, it cannot be defined in the terms of classical constitutional democracy. The same thing is true when we speak of the entrepreneur, when we speak of the political entrepreneur, or better the “biopolitical” entrepreneur. Or, rather, when we speak of the one who could be single or a set of collective forces, that succeeds at times in focusing productive capacities in a social context. What should we say at this point? Should this collective entrepreneur be given a prize? Frankly, I do think so, but all this has to be evaluated within the biopolitical process. I would say that here we really have the opposite of any capitalist theory of a parasitic entrepreneur. This is the ontological entrepreneur, the entrepreneur of fullness, who seeks essentially to construct a productive fabric. We have a whole series of examples that have each been at times very positive. There is no doubt that in certain community experiences, red (communist) collectivities, cooperatives basically, and in certain experiences of white (liberal) communities based on solidarity, we can see examples of collective entrepreneurship. As usual, today, we must first of all begin to speak not only of a political entrepreneur, but also of a biopolitical entrepreneur, and then begin to recognize also the inflationary or deflationary biopolitical entrepreneur. The biopolitical entrepreneur determines always greater needs while organizing the community; the entrepreneur represses and redisciplines the forces at play on the biopolitical terrain. There is no doubt that an entrepreneur in the Sentier neighborhood, to take an example from the studies we did here in France, is a biopolitical entrepreneur, one who often acts in a deflationary way. Benetton is the same thing, I really believe that the concept of entrepreneur, as a concept of the militant within a biopolitical structure, and thus as a militant that brings wealth and equality, is a concept that we have to begin to develop. If there is to be a fifth, a sixth, or a seventh Internationale, this will be its militant. This will be both an entrepreneur of subjectivity and an entrepreneur of equality, biopolitically.

GUARANTEED WAGE

There are reductive conceptions of the guaranteed wage, such as those we have seen in France—for example, the French RMI laws [*Revenu Minimum d'Insertion*: the “minimum income” required for integration into society], in the form they were passed, are a kind of wage structure of poverty, and thus a wage structure of exclusion, laws for the poor. In other words, there is a mass of poor people—but keep in mind that these are people who work, who cannot manage to get into the wage circuit in a constant way, who are given a little money so that they can care for their own reproduction, so that they don’t create a social scandal. Therefore there exist minimum levels of the guaranteed wage, subsistence wages, that correspond to the need of a society to avoid the scandal of death and plague, because exclusion can easily lead to plague. And poor laws were born of this danger in England in the seventeenth and eighteenth centuries. There are thus forms of the guaranteed wage that amount to this. But the real question of the guaranteed wage is a

5316 Useless Meeting 5319 Waiting for Break or Lunch 5321 Waiting for End of Day 5322 Vicious Verbal Attacks Directed at Co-worker 5323 Vicious Verbal Attacks Directed at Co-worker While Co-worker Is not Present 5481 Buying Snack 5482 Eating Snack 5500 Filling out Timesheet 5501 Inventing Timesheet Entries 5502 Waiting for Something to Happen 5504 Sleeping 5510 Feeling Bored 5600 Complaining About Lousy Job, Low Pay, and Long Hours 5603 Complaining About Coworker (See Code 5322 & 5323) 5604 Complaining About Boss 5640 Miscellaneous Unproductive Complaining 5702 Suffering from Eight-hour Flu 6102 Ordering out 6103 Waiting for Food Delivery to Arrive 6104 Taking It Easy While Digesting Food 6200 Using Company Resources for Personal Profit 6201 Stealing Pencils and Pens from Company 6203 Using Company Phone to Make Long-distance Personal Calls 6204 Using Company Phone to Make Long-distance Personal Calls to Sell Stolen Company Pencils 6205 Hiding from Boss 6206 Gossip 6207 Planning a Social Event 6211 Updating Resumé 6212 Faxing Resumé to Another Employer/Headhunter 6213 Out of Office on Interview 6221 Pretending to Work While Boss Is Watching 6222 Pretending to Enjoy Your Job 6238 Miscellaneous Unproductive Fantasizing 6350 Playing Pranks on the New Guy/Girl 6601 Running your own Business on Company Time 6603 Writing a Book on Company Time 6612 Staring at Computer Screen 7400 Talking with Lawyer on Phone 7401 Talking with Plumber on Phone 7931 Asking Co-worker to Aid You in an Illicit Activity 8100 Reading Email 8101 Distributing Email jokes to All Your Friends

different one. It is a question of understanding that the basis of productivity is not capitalist investment but the investment of the socialized human brain. Therefore, the maximum freedom, the break with the disciplinary relationship of the factory, the maximum freedom of labor is the absolute foundation of the production of wealth. The guaranteed wage means the distribution of a large part of income and giving the productive subjects the ability to spend it for their own productive reproduction. This becomes the fundamental element. The guaranteed wage is the condition of the reproduction of a society in which people, through their freedom, become productive. Clearly, at this point, the problems of production and political organization tend to overlap. Once we have pursued this discourse all the way, we have to recognize that political economy and political science, or the science of government, tend to coincide. Because we maintain that democratic forms, forms of a radical, absolute democracy—I don't know if the term democracy can still be used—are the only forms that can define productivity. But a substantial, real democracy, in which the equality of guaranteed incomes becomes ever larger, and ever more fundamental. We can then realistically talk about incentives, but these are discourses that in today's world are not very relevant.

Today the big problem is that of inverting the standpoint on which the critique of political economy itself is based. In other words, the standpoint of the necessity of capitalist investment.

We have said before and we have been saying for years that the fundamental problem is the reinvention of the productive instrument through life, the linguistic, affective life of subjects. Today, then, the guaranteed wage, as a condition of the reproduction of these subjects and their wealth, becomes an essential element. There is no longer any lever of power, there is no longer need for any transcendental, any investment.

This is a utopia, it is one of those utopias that become machines of the transformation of reality once they are set in motion. And one of the most beautiful things today is precisely the fact that this public space of freedom and production is beginning to be defined, but it carries with itself, really, the means to destroy the current organization of productive power and thus political power.

[Translated from the Italian by Michael Hardt. Edited by Hope Kurtz.]

INTERVIEW WITH ANTONIO NEGRI

BY ANGELA MELITOPOULOS AND NILS ROELLER

(JUNE 28, 1997)

Q: Are you returning to Italy as someone who has been defeated politically?
Negri: *Autonomia operaia* focused on the continuing transition from the traditional labor movement to the new subjects that have formed because of the development of modern capitalism. A new class was facing the factory workers' unions—a new class that didn't yet possess a new identity through its intellectual and social labor and operated with autonomous organizational structures. It was our goal to shape this passage from classical factory labor to social labor. The identity of this new subject, to which we referred as the “social laborer,” determines our society today. This does not mean the devaluing of labor as the central factor that creates wealth and value within society, but rather that this factor in the power structure is formed in a completely new way through today's conditions of production. Efforts to accelerate this process through political action have failed; in this we have been defeated, but not in our evaluation of this new concept of labor.

Q: In your statement to the press, you referred to the fact that you are going back to Italy in order to facilitate your citizenship. What is the relationship between your exile and European unification?

Negri: In no European country was there a reaction to the social movements after 1968 that was as contemptuous of human beings as that in Italy. The political strategy in France and Germany consisted of the political absorption of the broad masses of the movement, for example, into the Green Party or into alternative projects. Because of this, the radical and terrorist groups were isolated. In Italy, things were handled—and continue to be handled—differently: the entire extraparliamentary movement was characterized as terrorist and an entire generation was therefore criminalized and forced into internal and foreign exile. By returning, I would like to draw attention to the fact that the new government in Italy has the opportunity to “work through,” honorably and democratically, this legacy of the First Republic and bring to an end the dark past of state terrorism. The state policy of provocation was responsible for thousands of deaths in the seventies; banks were blown up and bombs planted on trains. The outrage in Bologna, in which more than a hundred people were killed, was carried out by the secret service and by paid right-wing radicals. Certainly, we and our movement made mistakes. None of us wanted this civil war.

Q: Are you demanding a new, fair trial?

Negri: No, there can't be a new, fair trial; the cases are closed. In the case of Sofri, there was finally a decision yesterday against a reopening of the case. I would like to advance the parliamentary discussion of amnesty. For the last four sessions of the legislature, a draft of a bill [on amnesty] has been awaiting a decision. In most of the judgments rendered at the time, defendants

received the maximum sentences. We cannot forget that there was state abuse of power here, particularly in the use of the state's witnesses, whose testimony often fell apart. This was underscored by the French state, which has offered sanctuary to those sentenced by these Italian courts since 1979.

Q: The seventeenth-century philosopher Spinoza has been important to your thought; he was exiled from his own community. Is Italy still a land from which a Spinozist must flee?

Negri: "Spinozism" for me means two things. First, the examination of causes rather than of effects. And, second, a call to an activism that constructs new communities on an ethical foundation. These communities are democratic because they emerge through the praxis of a majority of individuals. But even Spinoza himself didn't know how to unify his intellectual work and his activism.

Q: What would be ethical behavior in Italy today, whether as a politician or a private person?

Negri: That can't be answered so quickly and in such general terms. One can, however, note that citizens today are in possession of greater power than ever before. In all areas, the productive force of immaterial labor is unfolding. The problem at hand is that of forming a new public space in which democratic and productive forces will be able to become effective together, so that individuals [*Einzelnen*] discover the power of the community and recognize the potential of common democratic production that is inherent to it. Thus, I don't differentiate between political and private behavior, but instead think of individuality and community together on a democratic/productive foundation.

Q: How is it possible to behave politically in an electronic society in which individual workers don't know each other personally?

Negri: Clearly it isn't easy, but I think that one must simply engage oneself and do it! I am taking up my political work again starting from the ground up, from prison. With my return, I would like to give a push to the generation that was marginalized by the anti-terrorist laws of the seventies so that they will leave their internal or foreign exile and again take part in public and democratic life. This is our opportunity to re-identify ourselves. But prison as a site of noncommunication, of exclusion from political activism? That's not the case. One communicates not only with the help of electronic instruments, but above all, through the position that one assumes in a political/social situation. The position one takes within the event in which one is taking part communicates on the foundation of the body, even on the internet. It is a combination of rationality and feeling, of intelligence and emotionality, and if it doesn't exist, all communication is empty, nonexistent. What we have in common precedes us in bodily form.

[Translated from the Italian by Jamie Owen Daniel. Edited by Hope Kurtz. This interview originally appeared in the German daily *TAZ*.]

SUBJECT: THE SECOND-AND-A-HALF-WAVE INDUSTRY

FROM: LITTLE RED HENSKI <CARLG@POP.NET>

DATE: TUE, 29 SEP 1998 00:13:28 -0400

I work in the network operations center (NOC) of a major internet provider. The NOC is a large room, laid out like the bridge of the Starship Enterprise, wherein we watch our company's internet backbone 24 hours a day, 7 days a week. But for all the sci-fi semiotics, the NOC is a factory floor. Like my father, who spent twenty years at a refinery in East Texas, turning out bales of synthetic rubber, I answer to a foreman. The rubber, like the data packets here, flowed 24 hours a day. How did my segment of the internet industry, the industry of Trekkies and cyberpunks, turn into another boiler room, and so quickly? In oil and aerospace, the transition from wildcatters to wage slaves was measured in decades. At my company, it took three years.

For most of its eleven years, the company stayed small. In 1996 it contrived to be bought by a larger company to gain access to a newly deregulated Euro internet market. The company grew up, the stock options dwindled, and beer was banished from the NOC. The parent company ruled with a light hand until this summer, when NOC engineers were downgraded from salaried professionals to hourly technicians, because that's where operations people fit into our parent company's (long-distance telephony) scheme of things and that is that.

In my last job I learned to spot the deadly warning signs of corporate middle-age: exodus of mavericks, emphasis on credentials, adoption of urinalysis ("pre-employment screening"), "metrics," and the absolute bottom—*Total Quality Management*. My company has manifested four of these.

In an operations center, information about the network flows in, computers make sense of it, and people act on it. A NOC can be as small as a half-dozen workstations or as large as NASA's Mission Control Center, where I worked before coming to this job. We work in shifts, reporting on problems, troubleshooting them, and handing the tough ones over to the next shift. My father, late in his career, oversaw the rubber refinery's operations from inside a control room. The rubber was piped into the building, extruded, dried, and baled. This process was presented to him as a lighted flow diagram; our network is displayed on our wall as a giant cat's cradle.

When I started working here, the company was run by gnomish old-school computer gods or hairy cyberpunks. The founder had invented a basic protocol for dialing into the internet. One pasty-faced geek hid behind harsh email personas, Oz-like, to intimidate the demobbed military types who staffed the NOC (and still do). But the weirdos cashed in their extremely generous stock options or ascended out of the NOC and became magical friends—systems engineers—to be called when a problem was too complex for the NOC to handle. The founder went into semiretirement and bought a Star Wars X-Wing fighter he keeps in a hangar. The cyberpunks cut their hair. Now there are distinct castes: Morlocks in the NOC, perky Eloi in Sales, chameleons in middle management, and a CEO who wears stylish black.

This project is so important, we can't let things that are more important interfere with it. Doing it right is no excuse for not meeting the schedule. No one will believe you solved this problem in one day! We've been working on it for months. Now, go act busy for a few weeks and I'll let you know when it's time to tell them.

Not that our people were very eccentric to begin with, compared to their counterparts in Austin, Palo Alto, or Seattle. Our engineers mustered out of the military, telcos, and unnamed government agencies. At least half have had Secret clearances (some had Top Secret access), which means they know about Rex 84 and the Secret U.N. Symbols on Road Signs For Their Army To Read When They Go Marching Through Georgia, but have never taken LSD. They play the online stock market, watch stock car races on TV (worrying that NASCAR champion Jeff Gordon is gay), and eat at Taco Bell. This isn't California. No one went to Burning Man. East Coast geeks don't have to stock up on guns, ammo, and monster trucks in anticipation of Y2K-bug-induced chaos, because they've already got plenty of all three. Politically, they're right-libertarian, which means they've got nothing personally against abortion, so long as their tax dollars don't pay for it. The meager political choices available here mean they consistently vote Republican.

NOC engineers are like the technicians who worked at the oil refinery with my father—their skills and connections got them into the NOC but can't get them out, especially now. Aside from the experience I mentioned earlier, I've also learned a few tricks from bumming around the internet. I'm part of a group of six friends who followed each other here from Texas. My father's co-workers got their jobs from relatives or friends, and often came out of the oilfields or the Navy. But when this company grew, it raised the hurdles to promotion. It's still possible to get a NOC job without a degree, but more work experience is required than before. Like a lot of people here, if I were applying today, I might not get in. The company encourages those of us who don't have degrees to get them. The degree doesn't help you very much in the NOC, but it's your only ticket out of there. When we were downgraded to technicians, we were told that we could still move to an engineer's slot without a degree, but the job postings say otherwise. At the refinery, management offered a similar career path for the operators, but when it was offered, most of those guys were well into their thirties and forties. They'd have retired before they got their degrees. The NOC may be a Sargasso Sea, careerwise. I've got two years of internet NOC experience; the next level requires seven. The company announced in January that it was raising the door price by one cup of urine. Existing employees are exempt. I don't know if the company realizes how far it can go or simply doesn't see the need. Since corporate HQ is in the conservative Deep South, I suspect the latter. For all practical purposes, then, it's all academic. But it's another sign, like a slight shift in the wind. I have a hard time getting my co-workers to see the problem of mandatory drug testing, until I remind them that it extends control over employees 168 hours a week, while paying them for only 40. Aha! An argument that makes sense!

Metrics—management by numbers instead of by people—has reared its ugly head. I've had a hand in it, providing statistics on the types of problems the NOC has encountered, how long it took to solve them, and so on. It's a pain in the ass. Querying the ticket database takes a nimble hand, and running the numbers and making a report often take up a whole day—time I could spend honing my skills. It's my own fault: I volunteered back when it was a simpler job, and now I'm sort of stuck with it. Metrics also play a role,

I suspect, in the doling out of annual raises. In my last job, the budget for raises was fixed. If someone got a great raise, everyone else competed for the remainder. It was a classic zero-sum game: it is not enough that I succeed, but you also must fail as well. I can't say for certain that this is the case here, but the signs—preprinted self-evaluation forms, stated limits on raises, coincidental letters of praise from the CEO—are there.

And now I await the endgame: Total Quality Management, Empowerment, Reengineering, or whatever they'll call the beast when management lets it in the door. TQM (also known as Time to Quit, Man), is the sign that the last scintilla of slack has been sucked out of the job. The company wants you to work harder for less pay and like it. Marxists might call it a new Ideological State Apparatus; I call it crapping on my head and calling it a hat. A guy I work with was at a company that required workers to do Total Quality analyses of their jobs on their own time or risk bad performance reviews. Any meaningful suggestions (meaningful to the worker, at least) were ignored. How long before the rough beast slouches here? I give it a few months, tops. There's a certain logic that drives a company in this direction, or at least lays out a path of least resistance. After a certain point, the company's management loses its taste for excitement and craves respectability (not to mention the tall dollars it attracts). The quickest route is reliability, for which the company will shave off its rough edges. The company grades everyone as Superior, Satisfactory, or Watch Yerself, Bub. It may still be a nice place to work, but it's no longer the place to get rich, make a difference, find yourself, or do anything else that doesn't exactly suit the company's goal of providing ever-higher returns to its shareholders.

This wasn't supposed to happen in the "way new" industry, but it did. The only "way new" aspect is the rapidity with which the process took place. So I'm trading smutty observations about the Clinton/Lewinsky affair with my fellow NOC workers while the televisions show "Hardball with Chris Matthews" (with the sound off, thankfully) or the baseball playoffs. I gotta make like Huckleberry Finn and light out for the territory. But where is it?

SUBJECT: HOME AT WORK / WORK AT HOME

FROM: FAITH WILDING <74447.2452@COMPUSERVE.COM>

DATE: TUE, 8 SEP 1998 16:22:00 -0400

1. FEMINIST MAINTENANCE ART

In recent decades, the mass deployment of electronic technology in offices and workplaces has profoundly changed the structure of work and the relationship of home and work life in ways that are having particularly disturbing effects on women. In the U.S., women who have largely been concentrated in the lower echelons of the labor market—such as clerical work, the garment industries, manufacturing and service jobs—are increasingly being thrown out of waged labor and forced into part-time privatized telework, home-based piecework, and service labor. This situation is once again confining many women to the private sphere of the home, where they perform

double maintenance labor: that of taking care of the family, and that of working in the global consumer economy. Made possible by automated Information Technology (IT) and controlled by mobile capital, this market economy is based on just-in-time production and distribution strategies that speed up and control the pace of work and life.

The global disappearance of secure salaried and waged jobs does not mean the end of hard labor or tedious, repetitive, manual maintenance work. Worldwide, much of the rote maintenance work of keyboarding, data entry, electronic parts assembly, and service labor is still done manually, predominantly by women. But the spread of automated machinery into the workplace and the hidden nature of home work and telework is contributing to making women's work and women's laboring bodies invisible again.

Recently, cyberfeminists have begun to meet, both face to face and electronically, to discuss ways of analyzing, revealing, and transforming women's current relationship to IT, as well as ways to intervene in the replication of traditional gender structures in electronic culture. I will discuss some ways in which these concerns relate to women's changing labor conditions worldwide, and suggest how the seventies strategies of making maintenance labor visible could be adapted by cyberfeminist artists and activists today.

2. THE POLITICAL CONDITIONS OF HOME-BASED TELEWORK

Recently, cyberfeminist theorists, activists, and artists have been addressing the role of women in the history of computer development, and the contemporary gender constructions embedded in the new technologies. In "The Future Looms," cyberfeminist Sadie Plant exemplifies some of the more wildly utopian claims that have been made for women in technology: "After the war games of the 1940s, women and machines escape the simple service of man to program their own designs and organize themselves; leaking from the reciprocal isolations of home and office, they melt their networks together in the 1990s" (in L. Hershman, ed., *Clicking in*, SF: Bay Press, 1997, 123). This free mythical realm—neither home nor workplace—presumably is cyberspace, which is imagined as a brave new world for women. Would it were so! But alas, research reveals a far more complex situation for most women who work in the high-tech industries. Here I will briefly summarize the political and economic conditions of contemporary female office and home-based teleworkers, and the regressive effects on women's roles in the home (and on the home in the market economy) caused by the displacement of large numbers of employed women who have been forced back into the "informal" (part-time and home work) labor economy by the global restructuring of work. When large numbers of (mostly white and middle-class) women first started entering the wage-labor market, their traditional gender roles of maintenance and service were easily translated into the division of labor in offices, banks, and many other workplaces. Beginning in the late 1890s, women increasingly became the majority of copy clerks, typists, calculators, stenographers, switchboard operators, bookkeepers, clerical workers, filing clerks, banktellers, keypunchers, and data enterers. When automated office technology was introduced in the seventies, women also became the majority of computer users in offices and workplaces. Because such a

high percentage of employed women (43 percent) are clerical workers, it is important to study the effects of the deployment of information technology on clerical work. Researchers have noted the differences in how women and men use computers: “women seemed to have acquired computer skills that leave them doing very different jobs than men who use computers.” (B. Gutek, “Clerical Work and Information Technology,” in U. E. Gattiker, *Women and Technology*, Berlin: de Gruyter, 1994, 206). These skills tend to be the rote entry, filing, and maintenance of data, done in isolation in front of a terminal. No particular new skills or knowledge are needed for this work, and most companies never invest in training women clerical workers in more advanced computer techniques that would give them a chance to climb the internal company job ladders. They are condemned both to mental and physical repetitive stress syndromes to such a degree that the turnover in clerical workers is almost 100 percent in many offices.

In the nineties, many of these clerical jobs are being replaced by automated computers and networks of robotic machines. Secretaries and clerical workers are the first casualties of the electronic office. Lacking advanced skills and knowledge capital, these displaced women workers often have no other choice than to resort to low-skilled part-time work, or to home-based telework. Such “home work” includes different kinds of work ranging from professional telecommuting, entrepreneurial businesses, salaried employment, and self-employed freelance work, to (often illegal) garment and needle industries, electronic parts assembly, and clerical computer work. While for some upper-echelon female white-collar workers and professionals telecommuting has become part of their job and enhances their value as employees, for the great majority of other casualties of electronic joblessness, the forced “choice” of home work is a big step down—measured in terms of wages, benefits, and working conditions—even from clerical work in an office, and usually amounts to nothing short of the enslaved maintenance work that keeps global capital’s production lines and databanks speeding along. Opportunities are especially bad for women of color and immigrants, who tend to be concentrated in jobs most affected by office automation and who have the lowest level of skills.

The political conditions of office and homework in the nineties are restructuring home and work life in crucial ways, and are producing a worldwide labor crisis.

Home work is feminized labor: Feminized home work is a structural feature of the contemporary U.S. telework, data-entry, and service economies, as well as an aspect of the global sweatshop economy (which includes all kinds of assembly work), and the computer chip and electronic parts manufacturing industry. “To be feminized means to be made extremely vulnerable; able to be disassembled, reassembled, exploited as a reserve labor force; seen less as workers than as servers; subjected to time arrangements on and off the paid job that make a mockery of a limited work day; leading an existence that always borders on being obscene, out of place, and reducible to sex” (D. Haraway, “Cyborg Manifesto,” *Simians, Cyborgs, and Women*, NY: Routledge, 1985, 166). Work is restructured in a way that downgrades and feminizes professional work, and in turn lowers the pay level and satisfaction of the job.

Ironically, much of the automated technology was designed to replace the rote maintenance labor—mostly performed by women—in offices and factories, and the resultant displacement of women from the public workplace, as well as the renewed invisibility of their work, has had the effect of devaluing women's labor and homemaking services even more, both financially and emotionally.

Home work sustains the gendered division of labor: it is hardly news that home-based work in industrialized nations has historically been extremely exploitive. The global restructuring of work manifests locally, and home work usefully demonstrates “problems in capital-labor relations and in the gendered division of labor” (A. Calabrese, “Home-based Telework,” in Gattiker, 177). Telework is defined as “work delivered to the worker via telecommunications as opposed to the worker going where the work is.” “Home-based” telework refers to the individual working in the home, rather than in a centralized location. Surveys show that teleworkers are five times as likely as other workers to be women and to be working illegally, without benefits or insurance. There is never time to retrain for higher levels of work, or to get the education to participate in the more lucrative work of knowledge production and management.

Home work reinforces women's subordinate status in the home and labor markets. Despite the much discussed separation of public and private spheres, the history of home work clearly shows that public power (capital) has been used to structure the private lives and control work opportunities for women. Add to this the fact that the new communications technologies have opened the home space to the world, and conversely have brought the world into the private space of the home, and we get a blurring of boundaries that allows surveillance of the home-based worker and “makes the home more accessible to employers, marketers, and politicians” (ibid., 163, 169). Women teleworkers become industrialized women, while women in waged jobs become Taylorized homemakers. As sociologist Arlie Hochschild noted: “[people]...become their own efficiency experts, gearing all the moments and movements of their lives to the workplace” (*The Time Bind*, NY: Holt, 1997, 49). For home-based teleworkers there is no distinction between home and workplace, with the result that when both personal and worklife become Taylorized they have no escape. For women who have often been forced to “choose” home-based work because of the lack of child-care options—a common problem for illegal aliens, for example—home-based telework therefore amounts to a doubling of their bondage to the home space. The blurring of boundaries between private and public in the home-space also often places the woman in a doubled psychological subordination—to her employers and to her husband. The traditional feminine roles of emotional care-giving and physical care-taking become entwined with her externally controlled, maintenance telework in the home. In the long run, female rebellion against these pressures could have the effect of redefining the division of male and female labor, and of repositioning the importance of home life and private free time within the public economy and social relations. In the short run, since home life has no recognized public economic value, it is being more and more curtailed, automated where possible, and

reorganized to serve the needs of paid work; and women who work at home have the doubled role of worker and care-givers.

Home work undercuts progressive labor conditions and standards: The geographic mobility of capital made possible by IT uses waged labor, which is space-bound, with the result that geographical areas are increasingly reduced to the status of a captive labor pool. While this makes new modes of production (especially home telework) possible, it does not challenge “the place of the home in the economy, or of women in the home” (Calabrese, 179). The home space and the female working in it under the sign of “choice” actually become the site of regressive labor practices and intrusions of outside control made possible by the dissemination and flexibility of the very information technology that now immobilizes and isolates the woman worker. This isolation also contributes to women’s increasing marginalization in the computer sciences, and to the stratification of women in the computer industry between a small percentage of highly skilled engineers, scientists, systems analysts, and knowledge workers, on the one hand, and the vast numbers of low-paid, low-skilled computer workers, on the other. It is this great disparity and its concomitant economic and political consequences that cyberfeminists need to study and address.

3. ACTIVISM, INTERVENTION, RESISTANCE

The political conditions of home-based telework I’ve outlined pose questions about the effects of restructuring work for women in the integrated circuit: Will this reorganization of work further stratify jobs by race, ethnicity, and gender? Will the changes in work structures “reproduce existing patterns of inequality in only slightly changed forms, perhaps leading to different, more subtle forms of inequality?” (E. N. Glenn and C. Tolbert II, “Technology and Emerging Patterns of Stratification for Women of Color,” in B. D. Wright, et al., eds., *Women, Work, and Technology*, Ann Arbor: University of Michigan: 1987, 320).

What are possible points of intervention, resistance, and/or activism for cyberfeminists and artists (among whom I include myself) working with computer technology? On the microlevel, it is time to educate ourselves thoroughly about these conditions, and to disseminate this information as widely as possible through the different cultural and political venues in which we work. We must rethink the contexts in which computers are used, and question the particular needs and relations of women to computer technology. We must try to understand the mechanisms by which women get allocated to lower-paid occupations or industries, and make visible the gender-tracking that obtains in scientific fields of work. For example, many women tend not to choose certain fields because of the “male culture” that is associated with them.

Cyberfeminists could use the model of the recent feminist art project “*Informationsdienst*” to create “Information Works” that address the political conditions of telework, and make visible how the deployment of IT is affecting the restructuring of work and the loss of jobs worldwide in the market economy. (S. Buchman, “Information Service: Info-Work,” *October* 71 [Winter 1995], 103ff.). A teleworker’s bill of information and rights, dissem-

inated to offices and private homes through a webpage on the internet could also clarify the linked chains of “women’s work” and working conditions for women worldwide. A “Home work School” on the internet and in local community centers—taught and organized by home working women (many of whom are increasingly artists, single mothers, poor urban black women, immigrants, and displaced older women)—could offer (free) classes in everything from the politics of the new global labor economy and its effects on women’s lives and work, to feminist history, to creative and practical lessons in upgrading computer skills. Wired women need to form new unions that bring together women computer engineers, analysts, managers, programmers, clerks, and artists. We need to form coalitions with immigrant rights groups that are interested in computer literacy. The classical tactics of organizing to improve working conditions must be translated into new forms that take into account the decentralization and reprivatization of workers, and subvert the already-established communication chains of IT to reach and organize the people displaced by it. The creative ideas of cyberfeminist artists experienced in computer networking could be especially useful here. On the macrolevel, cyberfeminists need to initiate a visible resistance to the politically regressive consequences of relegating women back to the home work economy and imposing on them the privatized, invisible, double burden of labor. Many libertarians, economists, and labor leaders are addressing the social isolation and economic privation suffered by millions of casualties of electronic joblessness by calling for the creation of socially productive jobs with a guaranteed annual income (or a social wage) for workers displaced by automation. They are also supporting moves for a shorter workweek, for job sharing, for more equal distribution of knowledge and maintenance work, and calling for corporations that benefit from the global market economy made possible by IT to return some of this great wealth to support a Third Sector of social and community work. While many of these demands seem desirable steps toward a more equitable labor economy, in practice they amount to a social welfare tax and do nothing to challenge the intense stratification and concentration of wealth and power that is increasingly produced by the global market economy, with devastating effects, on already marginalized, impoverished, and invisible populations, including women. Cyberfeminists need to analyze the effects such schemes might perpetuate on the gender division of labor. Will women continue to be concentrated in the low-paying “caring” and social-maintenance jobs that double and extend their housekeeping “skills” to the whole community? Or will we fight to have such socially productive work be revalued by awarding it decent salaries, benefits, and job security? Such work should be acknowledged as vital to the survival of human life and should be highly rewarded—not just monetarily, but also by granting workers the greatest autonomy in planning and structuring the work, by having them determine working conditions, pay, benefits, and hours. Above all, we must rejoin the fight that was never won: the revaluing—by way of decent wages, benefits, and improved labor conditions—of the human work of child-raising and family care-giving that is vital to the productive lives of all human beings. If such maintenance work were liberally rewarded, and balanced with adequate free time and educa-

tional and social opportunities, it would be work attractive to both men and women, and could do much to substantially change traditional domestic—and paid labor—gender roles.

Given the groundbreaking changes IT is causing in the relationship of home to work, and in the place of the home (and private life) in pan-capitalist economies, some radical rethinking must take place about women's changing conditions both in the domestic sphere and in the public economy. The suggestion that the home should again become a locale of resistance to capitalism's predatory effects on privacy, sociality, and free time may be a regressive one for women, because it treats these problems as private ones with private solutions. The utopian promises claimed for IT—for example, the possibility of being freed from never-ending repetitive work and heavy manual labor; the drastic reduction of working time for all people and the concomitant expansion of self-managed free time—must be skeptically countered with a critique of the ways in which IT has actually increased work time and has eroded aspects of the pleasure and meaning to be found in work—such as sociability, worker solidarity, job security, and pride in skills. This critique should be combined with vocal opposition to and denunciation of the reintroduction of regressive labor conditions and policies for workers worldwide. It is crucial that we address the human sacrifice that the worldwide proliferation of home-based telework and sweatshop labor causes for millions, predominantly women. The wide social indifference to such vast inequities once again renders invisible the life-sustaining unpaid or underpaid maintenance work performed by women.

SUBJECT: GLOBAL \: DIST LIFE

FROM: KITBLAKE@V2.NL (KIT BLAKE)

DATE: SUN, 30 AUG 1998 18:06:24 +0200

Life gets more mobile. The net is fulfilling its predicted function as a software provider and distributor. People don't need laptops, since there are connected computers everywhere—at festivals, at your friend's place, in the cafe. With basic knowledge, any of these terminals can be used to check your mail, communicate, research, or plan the next leg of the journey. Even Berlin's high-end department store, the KaDeWe, has a Cybercafe.

Email is free these days via ad-driven storage sites, their pages generated on user request. In the web's commercial construction, text has no value. Unless it's somehow personal, everybody ignores text, so it's useless as a brand message conduit. Thus email—pure text—might as well be free. They can serve visuals with it. Image is valuable. Image provides a chance at attention, and attention is the currency of the network age.

The power of image on the net is directly measurable. Porno sites have figured out microtransactions, the Holy Grail of net.commerce. Quite simple, really; all they have to do is count. How much is an image display worth?

Maybe one hundredth of a cent, maybe a tenth. Cookies have become crumb counters. Thus you find free porno sites where the owner states, "Please visit my sponsors, they make this site possible." Already making fractions by the ad displays, passing a user through to a sponsor, fostering a click—attention—is worth a lot more, and these attention units are eagerly tracked and reimbursed by destination sites. The system works, because they pay for precisely what they get. Clicks and hits add up to cold hard cash. Or soft liquid credit.

Transactions are moving to an abstract sphere. There's something about ecash that makes it separate. Even though you know that, say, a phone card costs so much, once it's electronic, cash is something else. It's been removed from the physical world. For example, a few days back I was in Osnabrück: it was 11:30 at night, and two friends and I were trying to find a hotel. The city was busy with a festival, so we thought the smart idea was to call hotels until we found a vacancy. We all had mobile phones, but we went to check a telephone book in a booth. Anna looked up hotels, then pulled out her mobile. Max interrupted, "Save your bill, here's a phone card." "OK, thanks." But it wasn't a card phone. She grabbed her mobile, and made the call. Afterward, I said, "You know, we all have coins in our pockets." We looked at each other, and laughed.

Somehow, feeding coins into a metal machine doesn't seem like a communication method these days. Communication is paid for in units of time—of attention—and stamped metal discs are for more mundane things, like something to drink.

At lunch in Berlin, somebody asked, "Do you think working on a computer is dangerous?" It certainly won't be. Computers are going to disappear, fold into the fabric of life—as in Xerox Parc's idea of Ubiquitous Computing. After all, a computer is just a chip, and a chip can be—will be—in anything controllable. Display can have any number of forms. So it might be that when you have a message, in whatever medium, it shows up by multiple means. A blinking icon on the microwave, an indicator on the TV, a beep from the bodyware. Yesterday I sent an email from my mobile phone. It's not exactly a keyboard, but all I wanted to say was "*Thanks*." (Well, there was an ulterior motive. This friend of mine needs a mobile, and doesn't—yet—admit it.) He has one of the most distributed lives I know of.

It's really an issue of convenience. Make something that saves people time—giving them more opportunity to focus their attention—and it'll be a success. People want to customize their lives. I want to be able to make a call, now, without having to relocate my body. But I don't want to be interrupted, so you get my voice mail. I'll be notified instantly; and I'll retrieve the message, when it's convenient. As will you.

SUBJECT: I WAS A PARANOID CORPORATE ARTIST IN THE BELLY OF THE BEAST

FROM: JOSEPHINE STARRS <STARRS@SYSX.APANA.ORG.AU>

DATE: TUE, 6 OCT 1998 08:51:43 +1000

<<you're invading my computer>>

The day I began my artist residency at Xerox PARC (Palo Alto Research Center), Xerox sacked 10 percent of its workers worldwide. "Is the company not doing too well financially?" I asked my group leader. I was told Xerox was doing better than ever...actually the corporation has a turnover bigger than the whole US entertainment industry. U.S. companies just seem to be in the grip of downsizing fever at present...they say it's an efficiency thing...it also makes them look tough, and the shareholders love that.

<<my flatmate is trying to get rid of me>>

Palo Alto boasts some of the most expensive real estate on the planet, but I was staying in a cheap and cheesy motel at the trashy end, just over the road from the trailer park...still expensive for me, since the Australian dollar is worth about a piece of string at present. I have a website (<<http://starrs.banff.org>>) where people anonymously send me their paranoid thoughts...the paranoia was steadily coming in when I was living in Silicon Valley.

<<my computer is talking about me>>

Tech culture and car culture rule in the valley, and walking to PARC along Page Mill then Mountain View, past the slick corporate buildings surrounded by manicured lawns and hedges, the semiotic messages were obvious. I disliked especially the corporations that forced me to walk on the road...walking on wet lawns was no fun, but it was better than being hit by some young software designer in their new silver Pontiac.

<<why do they all hate me?>>

"So you've gone to work for Big Daddy Mainframe?" my daughter said to me on the phone. I replied no, I'm a spy, infiltrating the databanks of BDM...Remember the cyberfeminist manifesto?...yeah, whatever. Corporate artists have to sign NDAs (Nondisclosure Agreements) as soon as we walk through PARC's doors, so conversations at Silicon Valley parties often went something like: What do you do?... I work at Interval, but I'm not allowed to tell you what I'm working on, how about you?... I work at PARC...can't tell you either.... Nice weather we're having"...etc.

<<my dead grandma sees me masturbating>>

Invitation to typical Silicon Valley party: "Gathering of the Tribe... This Saturday yes another holiday has arrived...Time for Halloween in Spring,

We take pride in our people and care about their well-being. Our skills and competence are second to none. Our adaptability and diversity allow us to excel in many different environments and to meet a wide variety of challenges in a rapidly changing world. Our forward-thinking, innovativeness, and willingness to take risks keep us at the forefront of our business.

We give our members the decisive edge by providing vital information. We are the world's best. We provide intelligent information derived from information systems of our adversaries. We work with our members to gain a better understanding of their information requirements, and then provide them the best possible lectures, music and services.

The foundation that can observe what is happening, orient itself to understand the real dynamics of a situation, decide what to do, and then act on that decision quicker than an adversary gains the information advantage. We will provide our members the decisive information advantage by providing their vital information.

Come as the new you...shedding all old beliefs, judgments, and commitments that no longer serve you...releasing the true you. 6 p.m. Saturday to 6 p.m. Sunday. Celebrating the Mystery of Life... Food, song, and dancing all night... Dancing floor addition by the roaring fire, Smoking room Upstairs on an upper balcony, Hot tubbing not to be forgotten.”

<<the whole room is looking at me>>

PARC is famous for its “ubiquitous computing” research, and I was hoping to be electronically tagged along with the best of them—but it seems the big brother implications have put the researchers working at PARC off using the technology. The only manifestation of “ubicom” I saw was a hallway fountain whose rate of water flow indicated whether Xerox shares were up or down. “Augmented reality” is the buzzword in computer-interface research these days.

<<they are reading my mail...i know they are>>

Silicon Valley is saturated with stories of startups making their fortunes—gold rush mentality—but without the wild abandon of the west. PARC won’t even allow alcohol on the premises, and it’s not PC to flirt. But it’s a great place for bright young geeky smart things. It is assumed by most that technology will save the planet, that the valley is utopia, and if the rest of the world become good capitalists and embrace the new technology-enhanced lifestyle they can reach utopia also. Even the homeless in Palo Alto push hi-tech baby trolleys and wear discarded Gortex.

<<i’m not wearing clean underwear>>

So I roamed the empty corridors of PARC at night, feeling like the guy from the movie Solaris. I was working with these images of deformed foetuses in jars I’d illicitly shot in a medical museum in Berlin, making large color prints, wondering if my obsession with these little mutants had anything to do with the scary feelings I got passing by the many biotech corporation buildings every day. If I wanted to stay overnight at PARC, I could haul a few of the ubiquitous blue corduroy beanbags into my office to make a bed. Very cosy in a seventies sort of way.

<<my neighbor is psychic>>

PARC is known for the ones that got away: the mouse and graphical user interface were developed there, but Xerox never got a financial piece of that. This might explain the rigorous patent—charge—sue mentality there today...I never came up with an idea that was worth patenting

<<everybody is sucking on my intellect>>

SUBJECT: THE NETWORKING OF INTELLECT: THE WORK EXPERIENCE OF ITALIAN POST-FORDISM

FROM: RAF "VALVOLA" SCELSI

DATE: WED, 28 OCT 1998 04:01:37 +0200

According to the definition given by Sergio Bologna, "second-generation independent work" isn't just specific to Italy. It pertains in different degrees to many Western and former-Socialist countries. In Italy however, particularly in the last two decades, this phenomena has reached considerable proportions, immediately reaching the status of "the explanation" for the success of industrial manufacturing areas such as the Veneto northeast and Emilia-Romagna.

But what exactly is independent work composed of? The fundamentally differentiating element from wage labor is the amount of relational and communicative operations required. How many working hours in the day of an independent worker are dedicated to "keeping in touch with working relations and partners"? Many express the high incidence of the relational work quota on the total amount of hours worked with the phrase "I spend a lot of time on the phone" (S. Bologna, "Dieci tesi sul lavoro autonomo," in Bologna and A. Fumagalli, *Il Lavoro autonomo di seconda generazione*, Milan: Feltrinelli Interzone, 1997). Moreover, in independent work one witnesses a process of domestication of the workplace, meaning with this term the absorption of work into the system of private life, even if the two spaces—living and working—remain, at least formally, distinct and separate. Another new and extraordinary element is the different perception of time: while for the wage worker, working hours are a rigidly defined and normalized dimension, the self-employed worker deals with working hours without rules, which are therefore limitless. A situation has thus ensued in which, contrary to the historical aspirations of the organized workers' movement, working hours have gotten progressively longer, to finally occupy the entire span of the day. The spur toward the intensification of the workday exists in the form of financial retribution—now detached from the time-unit (day, month) during which the worker rented her or his availability—anchored to a work performance in which the only important thing is meeting the deadline fixed by the client. All these elements involve a general modification, not just of work, but also of anthropological habits and future expectations. It's with good reason that Bologna speaks about the "immanent risk of failure" as a constitutive element of independent work, and about the coming into being of a "psychosocial frame of mind incapable of long-term planning" (ibid.). "All it takes is an illness, an accident forcing one into a six-months period of inactivity, an unpaid invoice of a certain level, a heavy damage-claim lawsuit issued by a client, bankruptcy, malicious or not, of a customer or a supplier to invoke total ruin on oneself and one's own partners and collaborators" (ibid.).

If at first you don't succeed, destroy all evidence that you tried.

He who hesitates is probably right.

To steal ideas from one person is plagiarism; to steal from many is research.

The sooner you fall behind, the more time you'll have to catch up.

Half the people you know are below average; 99 percent of lawyers give the rest a bad name.

A psycho-social frame of mind is thus produced to make constant “insurance savings”: behavioral forms that protect oneself from the uncertainties produced by a precarious and foreboding future. The problem of describing this new social subject is also linked to aspects more properly identifiable with political theory. “Dispersed around the territory, autonomous workers don't appear to have a sociotechnical locus capable of collective action. Lacking any kind of collective compensation or possibility of direct response against the client, they have in fact exited the secular history of labor conflicts and the system of acquired rights built upon the legitimacy of those very conflicts... While wage labor had the possibility of holding the employer responsible for respecting contractual clauses and terms of agreement through the tools of conflict and negotiation, that is, with tools proper to a civilized society, in the case of such violations the independent worker can only enforce the client's contract through the actions of a judge” (ibid.).

We're dealing here with a total loss of democracy that will see, in the immediate future, the nonaccordance of citizenship rights granted during the Fordist–Taylorist era to a wide percentage of the employed.

Facing this difficulty, some ad hoc solutions seem to appear. On the one side, the use of mutual aid associations, in an analogous fashion to those in the initial phases of the history of the workers' movement. On the other, a reconfiguration of the tasks concerning territorially based organizations of bilateral representation, such as unions.

According to other commentators, coming from the institutional Left, the culture and ideology required by the new productive transformations entail a new type of work: “Not just thought as goods, but goods that must think.” (Bruno Trentin, *La Sinistra e la crisi del fordismo*, Milan: Feltrinelli). This is a type of worker that will have previously unseen features and whose appearance leads to diverse reactions, both on the employers' side and on that of the leadership of the Left. On the one hand, the employers immediately see the possibility of getting rid of the trade unions during the contractual negotiations, in order to establish a direct relation with the single employee; on the other, the unions too will have trouble relating to it. Their strategy has in fact always hinged on requests for better wages and not on demands that would radically mutate living conditions and the meaning of work itself.

In reality, it's simply the “intelligent” post-Fordist worker who owns the dialectical tools to question issues of work organisation, of distribution and the management of know-how.

HOW DID POST-FORDISM ORIGINATE?

Beyond the interpretative difficulties of the phenomena, it is possible to locate the historical origins and structural motivations that have pushed manufacturing sectors in this direction in Italy. Most commentators generally emphasize that this process originated at the end of the seventies, following three different causes.

a. the structural necessity for a modification of work relations.

At the end of the seventies, Italian capitalism found itself in a position of

great structural difficulty. On the one side, the workers' resistance that for a decade or so had efficiently contradicted every plan of capitalist domination; on the other, the end of the possibility of certain forms of financial mediation (primarily of the inflation tool, thanks to which Italian capitalism had extended its presence on the international markets) following the entrance of Italy to the European Common Market, which limited the oscillation of the Lira's exchange rates within a maximum range of 4.5 percent.

The end of the financial use of inflation induced large-scale Italian capital to make a double choice. In the first place, to raise on the international markets the liquidity necessary to change the work process (in this regard it's sufficient to think about the buyout of almost a third of the Fiat stock made by Libya during 1976–78). On the other, the frontal challenge to the central body of the working class, having exhausted the classical environments of union mediation. (On this regard, the case of Fiat is again useful: the firm laid off 23,000 workers at the beginning of the eighties).

b. the "refusal of work"

The attack on employees utilized a wide array of different tools. First, by stimulating and incentivising individual resignation, facilitated with impressively golden "handshakes" (£15,000–20,000 sterling at the time). Second, by applying pressure to the State so that segments of the very same working class being fired would be reabsorbed by civil service jobs. Third, by favoring a more complex process of externalizing work (spinoffs), through the promise of "safe" contracts to workers who agree to resign. In many cases, this involved offering them the cash to buy the machinery necessary to start new activities (a famous case from the beginning of the eighties is that of the CNC lathes for the industrial sector in the province of Brescia).

This last aspect of the process echoed a deeper dynamic experienced by the world of work throughout the seventies—a wide and internalized "refusal of work" and of the spatiotemporal rigidities inherent in wage labor (punching the clock, always the same schedule, the impossibility of staying up late at night, regulation of the spaces for conviviality during the work process, control of "bodily necessities," boredom and repetition), which had found its highest conflictual expression in the great cycle of workers' struggles between 1969 and 1975. Basically, the "exit the factory" program was embraced precisely by the more politically aware component of the working class, that which had made the "refusal of work" its flag. The process of externalization from the factory didn't solely orient itself toward industrial-type activities (which really only reconfigured the same subordinate situations of the previous factory job, but localized them in a different manner). Another part of the expelled subjects, almost as numerous as the former, recycled themselves into activities that interpret and cater to the popular desire for a diffused conviviality—so that in rapid succession venues, bars, pubs, small "fashionable" restaurants were opened... While a third component, namely, that endowed with better cultural instruments, better education, and higher professional skills, directed their job hunt toward the ascending cycle in fashion and advertising/communication (this was also the early period of "free radio" and commercial "private" TV channels).

From the opposite viewpoint, that of the workers' subjectivity, we must therefore note how the question of "relational knowledge," the art of "making communication," of "threading human relations and networks" was at the core of these "new" jobs. These were all skills that these subjects had learned and honed during the years of the great protest. This way—alas, through crooked paths—language made its appearance at the center stage of the industrial-political debate. Its weight would increase throughout the eighties and grow further in this current decade,

c. "Total Quality" and the use of informatics

The third element that has intervened in the genesis of the "post-Fordist cycle" is surely to be traced to the use of informatics. Informatics has been employed in a manner analogous to that of many other industrialized countries, both in product innovation and process innovation. The latter especially has stimulated great interest in the circles of "work scholars."

From this point of view, a visit to a big factory of today is certainly an impressive experience: the warehousing space for components (industrial and general purpose) are reduced to a bare minimum. All this is managed through a coordinated delivery of parts and components to the assembly line of the factory. The gate of the factory becomes a key part of the "streamlined," "downsized" factory. With their optical pens checking the entry and exit of goods, the personnel at the gates of the factory are also performing the first of many quality checks on the products that will shortly thereafter be assembled. The parts are randomly checked by appointed controllers and are then routed toward their specific assembly units. The majority of these parts don't spend more than a day or two on the shelves of the warehouses. The General Motors philosophy of manufacturing every single nut and bolt used in the factory appears decidedly antiquated. Today, a Fiat automobile is on average composed of about 5,000 different parts, two thirds of which are produced by Turinese subcontractors and the remaining third by other firms all over the world. In the light of this, transport and logistics in general grow to a strategic dimension. Nowadays in engineering there is a great interest in these fields. If the gate becomes a strategic place in the factory, even—contrary to the past—the first station in the assembly of the goods, the key locus is in logistics, fully completing the process of disempowerment and appropriation of the working-class knowledge of the work processes, that was started with Taylor's first studies. The use of networks becomes foundational to setting the pace of work, to the definition of quality standards for components and to the promotion and the distribution of the goods manufactured. The circle closes with automatic invoicing.

The use of informatics at the industrial level in Italy has therefore had its special role in the innovation of the production process itself. It has thus played midwife to the birth of real subregional "industrial districts" that specialize in manufacturing a single commodity, where these forms of industrial and process innovation are introduced and shared at a localized level.

POST-FORDISM AND THE LANGUAGE SPHERE

All of this has then sedimented into the development of a diffuse "pulviscular" fabric made of very small enterprises (5–6 staff each, with average rev-

enues of around £150.000-200.000 sterling) closely linked to other, bigger, firms, managing their work schedule, according to seasonal considerations and market demand, and on which they usually depend for a one-to-one relationship. There are some Italian industrial districts where there is a presence of one individual firm per every seven inhabitants (children and pensioners included).

It is sufficient to think of the Veneto region and the textile industry in the Treviso province (Benetton, Diesel), or of the optical industry in the Belluno area (Luxottica)—or, alternatively, to read the statistics relative to the per-capita income, indicating the richest area in Europe in that surrounding the city of Milan.

We're talking about firms in which it is completely "unsurprising" to work on Sundays, at nights, and way beyond normal working hours in order to keep up with the workload; with a strong relationship of solidarity between boss and workforce (hence the nosedive drop in workplace conflict in Italy and the birth of regionalistic parties such as the Lega Lombarda); and in which one sees a constant exchange of necessary know-how in the effort to obtain a quality finished product. The end result of such a process, in which a central aspect is played by the employment of relational abilities, and thus of the sphere of language in its wider definition, is to define a productive system in which the rigidities of the earlier work cycle—characterized as it was by the functional sectorialization of roles, knowledge and of the language—can no longer exist (C. Marazzi, *Il Posto dei calzini*, Bellinzona: Casagrande).

The fact that language has been increasingly subsumed into the productive sphere has made possible a lively interest toward all those theories that, in various shapes and forms, dedicate attention to the emergence of a collective sphere of intellect. Pierre Lévy, a French philosopher, has devoted a stimulating and thought-provoking text to this theme, though this is articulated more around philosophical speculation on the phenomenon of the internet (and its medieval Arabic neoplatonic roots) than toward the individuation of collective dynamics in networked employment. Moreover, this phenomena is developed and intensified by software, such as groupware, capable of optimizing work and communication processes. Even more surprisingly, some of the Marxian formulations expressed in that giant toolshed known as the *Grundrisse*, are experiencing a renewal.

GENERAL INTELLECT

And what supports Marx in his passages concerning science and machines? A very un-Marxist thesis, namely, that "abstract knowledge"—particularly, but not exclusively scientific—is beginning to become—by virtue of its autonomy from production—nothing less than the chief productive force, relegating repetitive and parcelized work to a residual position (P. Virno, "Edizione semicritica di un classico frammento," in *Luogo Comune* 1 [Rome]).

The difference between the *Grundrisse's* "fragment on the machines" and *Das Kapital* lies in this: "Now comes to the forefront the lacerating contradiction between a productive process that nowadays leverages directly and exclu-

sively upon science and a unit of measuring material wealth still coincident with the quantity of work incorporated by the products” (ibid., 11). This is a contradiction that, according to Marx, should lead to the “crash of a production-based on exchange value.” And if Marx, in the final pages of the fragment, gives a glimpse of the birth of a worker of such a kind, a whole individual, without amputations, we cannot but agree with what Paolo Virno notices: it is exactly this new subjectivity that is currently employed in the post-Fordist process. “What one learns, experiences, and consumes during the time of nonwork later gets reutilized in the production of goods, gets included in the use-value of the workforce.”

Even the other aspect of the critique issuing from Virno appears appropriate: “Marx has, without residual doubts, identified general intellect (that is, knowledge as production force) with fixed capital, and therefore neglects the side by which general intellect presents itself as living work, technical-scientific intelligence, mass intellectuality” (ibid., 12). “Today it isn’t hard to widen the notion of general intellect well beyond the knowledge that materializes itself in fixed capital, including as well the forms of knowledge that structure social communication and dynamize the activity of mass intellectual work,” because within the contemporary work processes, “there exist entire constellations of concepts functioning as productive machines per se” (ibid., 13).

THE PROBLEM OF INNOVATION

When Marx says that science is incorporated by fixed capital, he is arguing that the conditions of the scientific process—so far as these have made themselves known from the end of the seventeenth century—are impossible today. Science is irremediably turning into technology because it mutates its nature into a series of procedures that will then be applied to industrial processes of manufacturing.

Beyond the possible critical notes that could be raised over the question, it is indubitable that Marx understands a process in action, by which the issue of scientific and technological innovation remains unanalyzed, out of focus. And in the concept of general intellect we must include the innovation aspect, the creative and unforeseeable aspect of the science factor today. If it’s true that innovation also tends to transform itself into a useful mechanism for the accumulation of profits, it is also true that the diffuse and creative process of innovation isn’t always so directly mechanistic. There are important examples in the history of technological innovation debunking this statement. Without wanting to refer to the history of the Bauhaus, it’s sufficient to think back to the birth of the personal computer: born from the collective passion of enthusiasts and social experimenters, the PC, prior to becoming an extraordinary technological artefact, is a *revolutionary mental archetype*.

The emergence of a collective dimension of intellect should therefore orient itself toward a collective-projectual direction capable of imprinting definite turning points in the way people think. In this sense, technological innovation represents at best the factor of unpredictability within a social process that some would like characterized by a causal linearity. Of course, this isn’t enough to alter or change the social game. Other stimuli apart from innovation are necessary and, not by accident, the Californian garages that pro-

duced the PC had some sorts of direct filiation to the countercultures of the sixties. In other respects too, the use of the net can represent a good catalyst for the emergence of new mental archetypes.

It's definitely uncommon to get one dealt, but sometimes a joker from the deck can totally alter the destiny of the game. Therefore we must try and get at least two jokers available for our game—and then turn them into three and four. Innovation is definitely one of these “trump cards.” We still have to invent the others.

[Translated from Italian by Syd “I was a junkie stagehand” Migx.]