

From Useful Idiocy to Activism: a Marxist interpretation of computer development.

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ABSTRACT

Baran and Sweezy's 1966 study of U.S. capitalism [2] argued that its fundamental problem is not "diminishing returns" but "the tendency of surplus to rise" – from which it has been rescued by wars, by "epoch-making innovations", and by a massive sales effort. In 1913 Rosa Luxemburg [12] showed that capitalism is unsustainable without the unacknowledged support of non-capitalist producers. Together these analyses seem to explain a great deal about today's, capitalist IT industries.

Keywords

Capitalism, Marxism, economic surplus, sales effort, marketing, electronics, computers.

INTRODUCTION

Thanks to anthropologists such as Sahlins [15] and the studies that began in the 1960s and 70s of "The Creation of World Poverty"[8], we now know that human history is not the traditionally-assumed gradual ascent from penury to prosperity, but a succession of abrupt descents from abundance to scarcity, from security to precarity. What role do technologists play in all this? It is clearly an important role! This paper is a first pass at a rather large discussion, whose main staging-point so far seem to include:

1. Systems of elite rule tend to prefer the creation and maintenance of scarcity, to satisfying human needs.
2. Capitalism is "superior" to other elite systems, because it occasionally recognises and takes advantage of the human tendency to innovate. But it has greater scarcity-maintenance problems than its precursors because of the greater surpluses produced.
3. In the computer, Capitalism was faced with the problem of uncontrollable abundance, but it has since discovered that the computer can be turned into a "surplus disposal" technology par excellence.
4. The system requires continuous rationalisation, which requires huge numbers of professional intellectuals (or, to borrow from Lenin's right-wing traducers, "useful idiots") and the creation and nurturing in the population of what might be called "useful psychopathies".

5. The economic system is a totality. It has no "outside". But under capitalism, one sub-group, aided by its useful idiots, defines itself as being "all that there is". This allows huge costs and harms of all kinds to be externalised, if only temporarily.
6. Although capitalism, as it were, "thinks it is all there is", it has never been and can never be self-sustaining. As Rosa Luxemburg pointed out [12], its "success" relies always on unacknowledged support and subsidies from non-capitalistic forms of production. This support can be coerced, but it can also appear willing, *even to those who are coerced* [1].
7. There must therefore always be "preserves" within and around capitalism where creative, co-operative, humane impulses can be indulged legally. They are tolerated or even cultivated, as long as they produce what capitalism needs briskly, cheerfully, and without asking unhelpful questions. Outstandingly brisk, cheerful, compliant individuals may be rewarded with jobs as cheerleaders and prefects.
8. Capitalism is a terrible place to have a good idea.

Computer-aided surplus-disposal

In 1966, the independent Marxist economists Paul A. Baran and Paul M. Sweezy presented a robust and richly-researched analysis of capitalism's evolution, since Marx's day, into an era of giant corporations, in which competition had been eclipsed by oligopoly and monopoly, and the problem of "diminishing returns" by an even more nightmarish "tendency of surplus to rise". Their book "*Monopoly Capital - an essay on the American Economic and Social Order*" presents a picture of capitalism caught, like the Sorcerer's Apprentice, between the need to extract bigger and yet bigger profits, and then find ways of investing those profits, so that they generate yet more profits, for which yet more profitable investments must be found, ad infinitum.

The surplus, for example, must be increased in order to support an ever-rising share-price and dividend, so wages must be suppressed, but that imperils demand, which threatens a slump – which is averted, traditionally, by spending on luxury goods and weapons, wars and their aftermaths, and prestige items (cathedrals, corporate headquarters buildings and salaries etc).

Baran and Sweezy observe that two further escape-routes had presented themselves since Marx's day. The first was "epoch-making innovations", such as railways and automobilisation, which cause a wholesale rearrangement

of the fabric of life, so that everything can be built all over again. (Electronics is surely such an innovation — yet there is a dearth of research on this aspect.) The second is "the sales effort" which, since as early as the first years of the 20th century, had gone far beyond mere advertising, and invaded production itself, to such an extent that it is now almost (but not quite) impossible to work out what the proper cost of anything would be, if it were produced simply for convenient and comfortable use. For example, drawing on a detailed study by Fisher, Griliches and Kaysen [7] of the costs of styling changes to automobiles between 1949 and 1960, they estimated that an average car (then costing around \$2,500) could under a purely human-centred system be produced for around \$700, and be more reliable, convenient and durable. And for many people even this cost could be reduced: in a human-centred world there would be less compulsion to own a car, or use it for things other than pleasure.

As the 20th century proceeded the sales effort increasingly invaded manufacture, research and development, which became universally subordinate to marketing, and now (since about 1980) it even includes most university research, which must pursue goals that industry desires, within the time-frames industry needs. As George Monbiot puts it: *"Business now stands as a guard dog at the gates of perception. Only the enquiries which suit its purposes are allowed to pass."* [14]

Fashion and other forms of planned obsolescence allowed entire generations of products, of more and more kinds, to be "retired early", so that the same products can be sold over and over again to the same people.

This of course is a hugely familiar situation in the IT age. Thanks to electronics, not just product lines but entire industries can now be made obsolete, repeatedly: film-based photography and cinematography; fixed-line telephony ... excellent news for capitalists in search of new outlets for investment, but there has not been a study like Baran and Sweezy's since electronics began to permeate the world of commodities. Perhaps that is because electronics arrived at the same time as the Thatcher-Reagan consensus, which put a definite dampener on this type of study. Even at a glance, it seems clear that the processes Baran and Sweezy identified are now in overdrive. We can even begin to get a sense of how the computers we have got differ from what we might have, if they did not always have to consider capitalism's survival needs.

Electronics, in almost every kind of product and activity, deliver very sellable benefits, but to what extent are these innovations genuine, socially-needed ones, and to what extent are they marketing initiatives? And to what extent has "the user been configured" to need them (to borrow Steve Woolgar's expression [17])? In 1966 the distinction between styling and function was clearer, but electronics has allowed a great blurring of distinctions. To some extent, we seem to have two powerful phenomena in one: the epoch-making innovation, *and* the sales effort,

combining to generate an unprecedented wave of obsolescence.

The ability to pile new functions onto old ones, impossible with any previous technology, has allowed the personal computer to be re-sold to the same users, to do largely the same work, every two or three years. (You must buy a home cinema if you want to carry on word processing). And this is really just the tip of the iceberg. The incorporation of electronics into (for example) automotive subsystems makes them impossible to repair. The user is obliged to buy an entire replacement, only available from the original manufacturer. Large corporations have thus annihilated whole swathes of competition from back-street garages and repair shops – effectively stripped out an entire socio-economic stratum for their own temporary profit, without any opposition. A fashion-conscious milieu eases acceptance.

Computers have allowed "mean time between failures" of manufactured goods to be tuned to very fine tolerances – no more material goes into the product than is necessary to help it survive in use for an arbitrary number of years. The saving goes to profit, and the manufacturer can plan ahead, knowing the product will be replaced after x years. Thus, even something as solid-looking as a Caterpillar tractor can be made to dissolve into air, on cue [10]. Meanwhile, the user has been carefully and lucratively "configured" by accountancy experts to accept the concept of "design life" as a normal part of the language.

There is much more in this vein, of course – précarisation of work [3, 11], de-skilling [5], outsourcing and offshoring and the attendant environmental and human damage [9, 13]; and the fascinating possibility that even "high-tech disasters" serve an important surplus-absorption role (e.g. the dot-com bust of 2000-2001 and the apparently entrenched preference of capitalist industry for turning IT projects into military-style "mass-attacks" and "death-marches") [10]. IT disasters seem a nearly perfect, last-ditch surplus-venting mechanism: they leave no physical trace other than a few binders of unreadable documentation and second-hand PCs.

And we need a major debate about the "preserves" – the areas of life that are outside or hidden within capitalism: families, friendships and work-groups, "traditional societies" (and the robust, elegant things all of these groups produce); and preserves that are, grudgingly or manipulatively, given provisional official recognition: the "creative" departments of advertising industries, churches, the "personal growth" industries, "quality circles", the "creative industries" in general. A major part of this discussion would focus on the lethal consequences of individuals choosing to accept and even defend the principle of confinement in the "preserves" – and even more on the psychological forces that make them act this way, turning them, to use a very cruel but historically important label, "useful idiots" for capitalism.

We need a taxonomy of “useful idiocies”

A fascinating thing about “useful idiots” is that they were never mentioned by Vladimir Ilych Lenin. It seems the term was dreamed up in the US by red-baiters during the Cold War [4], and *attributed* to Lenin. Could this be the most public example of Kleinian “transference” in history: a bid to tar socialism, and everything remotely associated with it, with the chilling, treacherous manipulateness of capitalism itself, in order to avoid facing the terrible extent to which capitalism makes idiots of us all?

IT is central to capitalism, and it has spawned an amazing wealth of Useful Idiocies, from the “weightless economy” onwards. Common, and telling, features of the Idiocies include a quite fascistic fondness for, and usage of, the pronoun “we”, and a righteous passion to defend Humanity against the tyrannical attentions of techies and badly-designed “save” dialogs – and silence on other kinds of oppression, especially ones that operate in the places where “our” computers are made and programmed, and in most of the places where they are used. This is allowed to pass without even a polite “ahem” from the professional press.

The venerated Ben Shneiderman begins his recent book, “*Leonardo's Laptop*” [16], with a declaration that: “*The time is right for the high tech world to attend more closely to the needs of humanity.*” He then summons up a vision of computer use that looks astonishingly like Victorian colonialism, with knobs on. When you travel, he says, “humanity” will be able to choose “*local guides whom you hire for their colorful personality or botanical knowledge*”. Like Charlie in the Chocolate Factory, “humanity” will be supported by kindly foreign people, and applauded by his ever-adoring relatives, every step of the way:

Imagine that after a sunrise climb, you reach the summit. You open up your phonecam and send a panoramic view to your grandparents, parents, and friends. They hear the sound of birds, smell the mountain air, feel the wind's coolness, and experience your feeling of success. They can hear each other cheering and point at the birds or click on other peaks to find out more. They remember how, on your last climb, a rockslide brought you unconscious to an emergency room. On that occasion, fortunately, your "World Wide Med" records guided the physician to care for you. She was able to review your medical history, with annotations in her local language helping her to prescribe the right treatment. Today's climb has a happier outcome, which restores everyone's confidence.

This is “socialism in one person”! In this utopia, there is no acknowledgement that large parts the world's population have never even made a phone call¹, let alone used a computer, or that the technology he describes depends on

¹ The generally-given figure is half. This, apparently, originates in an Economist article of 1995 and is probably still fairly accurate. See Google Answers: “What percentage of the world has made a phone call?”

poverty wages, banditry and squalor he'd never tolerate himself. We are not told whether the foreign (but female!) physician who sorted him out gets to use this stuff as well, in her “local language” or otherwise, but my guess is perhaps not. It's a consumer revolution, and the little foreign people behind the counter are not in the equation. Perhaps they love their work, perhaps not. They are simply “there”, like Mount Everest.

Michael Dertouzos is another writer the same vein. He is the hugely respected ex-head of MIT's Laboratory for Computer Science, so what he says is taken very seriously. He even attends (he tells us) meetings of the World Economic Forum in Davos, where the world's most powerful businesspeople and politicians decide policy for the rest of us.

In his 2001 book “*The Unfinished Revolution*” [6] Dertouzos *does* acknowledge that poverty exists. He even acknowledges that it exists in the USA:

In the US economy, an average of \$3,000 in hardware, software, and related services is spent each year per citizen. In Bangladesh it's \$1, according to that country's embassy. I suspect that if I could find an "embassy" representing poor Americans, or the poor of any industrial nation, I would get an equally screeching dissonance between information technology expenditures in the ghetto and in the suburbs.

But then he reveals some startling perceptions, which one hoped had died with the British Raj, that the world's people are somehow happy, even fortunate, in their poverty - and also pitifully helpless. He suggests that they do not know how to feed themselves or take care of their own health, and need “our” help - which we supply by kindly allowing them to work for us and sell us things, cheaply.

He envisages globalised, internet counselling services, where stereotyped wise, bone-idle, poor-but-happy women of “the East” provide cut-price solace for the tormented, rich women (and why only women?) of “the West”:

Older, experienced Indian women could spend a lot of time over the Net chatting with Western divorcées, who could benefit from their advice at costs substantially below the psychologist's counseling fee. The lack of time that characterizes Westerners would be counterbalanced by the plentiful time of people in India.

No suggestion, interestingly, of using poor *American* women to perform this service. Why not? They're in the right time zone; they even speak the same languages as the divorcées. And heaven knows they need the money! Why couldn't his own country's famous “trailer-park trash” do this? Dertouzos does not say.

No careers are risked by proposing revolutions like these. They rock no boats and threaten no vested interests. On the contrary, their universities' corporate sponsors are surely very happy to have these scenarios presented as “the future” (and gratis, by big-name publishers) because it is a future they'd love to cater for; in fact, a future they

absolutely need! It involves plenty of bandwidth, plenty of gadgets, plenty for the investors to get excited about.

Can computer workers realise their political power?

Computer-work is connected to every other activity under the sun - and it has got genuinely revolutionary potential. It can be used to leach even more profit from the very poorest. But it can also empower the poorest. Its assimilation into so many aspects of modern life means that one has to be intensely dull not to notice the connections.

For many people, the most politically important aspect of computers is and always has been the empowerment, and the sense of power, one can experience, or lose, through using them. Empowerment is not something that an authoritarian system is easy with: powerlessness and helplessness are what it prefers. And people who can do stuff for themselves are less biddable and more questioning than people who can't.

This surely is why people like Douglas Engelbart, whose aim has always been the augmentation of human abilities, have found capital such a wary customer and such a treacherous ally; and why the possibility of controlling and truly owning our computers by programming them for ourselves gets more and more remote; and why democratic public debate about what we would like from our computers is not even on the agenda (despite the fact that at least one fundamental concept, object-oriented programming, came directly from such a debate - in Norway in the 1960s).

Computers are inherently and inescapably political because they are about power. A great deal of energy goes into denying this fact, but the political tradition is a rich one - from the Participatory Design movement, with its roots in trade-unionism in Scandinavia and England in the 1970s, to the free and open software movements, and the irrepressible, ubiquitous anarchistic hacker subculture.

Some people see hope in the way some sections of computerdom have once again become overtly and actively political - particularly the Independent Media Centre movement (Indymedia), which began its life during the demonstrations against the World Trade Organisation in Seattle, in November 1999, and has exploded into a huge, self-organised world-wide phenomenon. Indymedia and numerous other new activist networks played a major part in mobilizing, co-ordinating and sustaining massive world-wide popular opposition to the US and British governments' invasions of Afghanistan and Iraq - in 2002 and 2003. The fact remains, however, that the invasions went ahead. And meanwhile refugees from those countries, and from many others, are persecuted by our governments, with few popular protests - and with the enthusiastic support of major sections of the IT industries, who compete to provide new "e-borders" technologies, biometric ID systems, electronic tagging services and so on. These systems are built, with love and care, and by ordinary, decent people like you, me and Ben Shneiderman.

The world urgently needs systems that empower the people who have no power - but that will never happen until they become real, flesh-and-blood human beings, with names, to those who want to do this work, and for this there appear to be no technological shortcuts. It depends on real, feet-on-the-ground activism, alongside the oppressed.

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