

**Review:****Cyber-Marx**Nick Dyer-Witheford (University of Chicago Press, Urbana/Chicago, 1999)<sup>1</sup>

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The subtitle of this book is *Cycles and Circuits of Struggle in High-Technology Capitalism*. This hints of an attempt to analyse the current state of global class composition, to unearth the tendencies leading out of our current paralysis and offer hope of a new world. A *Communist Manifesto* for the 21<sup>st</sup> Century perhaps? The book's underlying aim is a little more prosaic however, attempting to critique the work of bourgeois 'information revolutionaries' who have propagandised recent technological developments as a fix for the crises of capitalism. But doesn't conceding that the world we are living in should be understood as *high-technology capitalism* mean that this critique is compromised right from the start?

**The crisis of the social factory and the information revolution**

Following the Second World War capital secured its golden age of uninterrupted growth. But despite those who proclaimed the 'end of ideology' (the eradication of class conflict and with it Marxism as a revolutionary force), the resumption of open class warfare characterised by autonomists as the 'refusal of work' increasingly undermined the productivity deals on which such growth was premised and raised the possibility of the end of capital instead.

Capital's response could only be to counterattack through another wave of drastic restructuring:

In the realm of government, the Planner State is replaced by the 'crisis state' – a regime of control by trauma in which 'it is the state that plans the crisis'. Keynesian guarantees are dismantled in favour of discipline by restraint; unions hamstrung by changes in labour law; monetary policies exercised to drive real wages down and unemployment up; and welfare programs brought under attack. At the same time corporate managers take aim at the industrial centres of turbulence, decimating the factory base of the mass worker by the automation and globalization of manufacturing. Dismantling the Fordist organisation of the social factory, capital launches into its post-Fordist phase – a project that, however, must be understood as a technological and political offensive aimed at decomposing social insubordination. (p.76)

The devastating effects of this technological offensive on class composition are well known to us in Britain. Amongst the series of critical industrial confrontations where innovations in information technology played a critical role are the examples of the British miners undercut by the Minos robot drill and the Fleet Street printers annihilated by computerised typesetting. This technologically armed counter-offensive by capital has inflicted a serious defeat upon the working class, and left Marxist thought reeling:

There is now widespread acceptance even on the left that aspirations for proletarian autonomy have met a technological nemesis – that capital may have succeeded in achieving its age-old goal of emancipation from the working class. (p.79)

It is the shadow of this defeat that provides the context for the work of the 'information revolutionaries'.

**Information revolutionaries**

Dyer-Witheford demonstrates how the 'information revolutionaries' have developed their theories through an antagonistic dialogue with the spectre of Marxism. This development begins with the 'end of ideology' thesis that had to be abandoned in the face of the working class offensive of the late 1960's. The response to the return of class war was to understand such conflicts as the '*growing pains associated with the emergence of a radically new social order*' (p. 17). *The Coming of Post-Industrial Society* by Daniel Bell in 1973 argued that the increasingly systematized relationship between scientific discovery and technological application was making theoretical knowledge society's central wealth-producing resource, leading to the erosion of the working class.

The 'information revolutionaries' have revamped the post-industrial thesis as the transition to the 'information society' in which industry has been succeeded by information. The 'revolutionary doctrine' of those who have argued that this 'information revolution' is both inevitable and desirable, and to which one must adapt or face obsolescence is summarized by Dyer-Witheford in seven points:

1. The world is in transition to a new stage of civilisation, a transition comparable to the earlier shift from agrarian to industrial society.

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<sup>1</sup> Available for free at:  
<http://www.fims.uwo.ca/people/faculty/dyerwitheford/>

2. The crucial resource of the new society is technoscientific knowledge.
3. The principal manifestation and prime mover of the new era is the invention and diffusion of information technologies.
4. The generation of wealth increasingly depend on an 'information economy' in which the exchange and manipulation of symbolic data matches, exceeds, or subsumes the importance of material processing.
5. These techno-economic changes are accompanied by far-reaching and fundamentally positive social transformations.
6. The information revolution is planetary in scale.
7. The information revolution marks not only a new phase in human civilization but also a new stage in the development of life itself.

Alvin Toffler is a former Marxist who has popularised these ideas and polemised against what he now considers to be an obsolete Marxism. According to Toffler, as the information economy eliminates the factory so the legions of mass labour vanish, and with them Marx's historical protagonist. The industrial proletariat disappears to be replaced by workers who 'own a critical, often irreplaceable, share of the means of production': knowledge. Thus the foundation for Marx's theory of class conflict falls away – class as a collective identity based on adversarial relations of production will have been dissolved.

For the information revolutionaries, therefore, information technology has created a world in which communism is neither possible nor necessary.

### Marxisms

Dyer-Witthford wants a Marxist response to the claims of the 'information revolutionaries'. Indeed Harry Cleaver states that the book 'may well be seen as the Marxist response to Toffler's *Third Wave*'. And Dyer-Witthford himself outlines his project early on in the book as a Marxist critique of these claims:

In what follows, I [...] analyze how the information age, far from transcending the historic conflict between capital and its labouring subjects, constitutes the latest battleground in their encounter; how the new high technologies - computers, telecommunications, and genetic engineering - are shaped and deployed as instruments of an unprecedented, worldwide order of general commodification; and how, paradoxically, arising out of this process appear forces that could produce a different future based on the common sharing of wealth—a twenty-first-century communism. (p.2)

So Dyer-Witthford argues that this exorcism of the ghost of Marx has failed, but that various Marxian schools or tendencies have failed to mount an adequate challenge to the 'information revolutionaries'.

One line of Marxist thought, Scientific Socialism, 'which understands technological development as an autonomous force, a motor of history, whose ever-expanding productive powers smash relentlessly through anachronistic forms of property ownership in a trajectory heading straight to the triumph of socialism' connects Marx, Engels,

Bukharin, Bernal and Cohen with Ernst Mandel. His *Late Capitalism* deals with many of the phenomena identified by the post-industrialists and includes an explicit refutation of the ideology proclaiming a technical fix for the contradictions of capital.

For Dyer-Witthford however Mandel's opus is fatally flawed because of its objectivism:

In Late Capitalism the dance of machines and capitalists moves like clockwork toward a foreordained conclusion that uncannily echoes the linearity of the postindustrial doctrine. ...Mandel's dialectic of productive forces and relations, in short, skips over class struggle. (p.46-47)

In the 1960s new strands of Marxist thought sought to make sense of the revolts against the technology of assembly lines and the war machine. The project to criticize technology-as-domination developed along two streams – one focussed on the labour process, the other exploring the mass media.

Labour Process theory, inspired by Harry Braverman's *Labour and Monopoly Capital*, focussed on the 'degradation of work', arguing that computerised labour processes were deployed to break the power of skilled workers and reassert managerial control. The other stream drew on the work of the Frankfurt School, deepening the analysis of the 'culture industry' by analysing the capitalist media as a tool of domination. From corporate ownership of the means of communication flows 'ideological control'. These two streams were subsequently melded together by Kevin Robins and Frank Webster in their work on '*Cybernetic Capitalism*' which paints what Dyer-Witthford calls a relentlessly bleak picture of capitalist control of knowledge and information extended from the factory to society as a whole.

The only possible response within this perspective is then one of neo-Luddism. But then:

The more persuasively such analysis demonstrates the complete instrumentality of technoscience to capital, the harder it becomes to posit credible opposition or alternative. [...] This dilemma is repeated by many later theorists, in whose portrait of techno-capitalism revolutionary possibility gives way to dystopian nightmares of indoctrination, surveillance, and robotization. (p.53)

If neo-Luddism abandons Marxism through 'despair at the oppressive power of capital's new technologies' then post-Fordism does so through 'enchantment with their liberatory potentials'. But while this may be a return to the 'positive' Marxian attitude towards technology it differs importantly from the views espoused by Mandel. Scientific Socialism promoted a revolutionary teleology, the final victory of socialism. The theory of post-Fordism advocates a technological reconciliation of workers with capital.

The 'Regulation School' developed the notion of Fordism as a mode of accumulation with integrated wage relations and consumption norms. This mode of accumulation is taken to have gone into crisis in the late 1960's ushering in a period of uncertainty and restructuring.

Advocates of post-Fordism assert that computerised technologies have enabled the establishment of a new regime of accumulation based on high-tech craftwork: 'flexible specialisation'.

Dyer-Witthford points out that

...embedded within the theoretical apparatus of the Regulation School is a deep tendency to downplay the conflict at the heart of capitalist society. For its analysis takes as its focus and 'point of entry' the requirements for capital's successful organization of society, not the contestation of its rule. (p.59)

The theory of post-Fordism assumes that restructuring will succeed. It assumes that the task of Marxism is to find a way out of the crisis.

But the Marxist project has never been to help capitalism find a way out of crisis. It has been to find a way out of capitalism. (p.60)

So Dyer-Witthford wants a Marxist response to the challenges posed by the information revolutionaries, one which acknowledges the centrality of class conflict and the possibility of revolution. But:

All these accounts suffer major defects as a reply to the anti-marxist challenge of the information revolutionaries. In a way that uncannily mirrors the logic of their opponents, scientific socialists effectively liquidate human agency and substitute for it an inexorable, and ultimately sinister, technological automatism. Technology-as-domination theorists restore to view the question of the subjectivity constituted by a machine-saturated society – but can conceive of it only as a process of victimised exploitation, to which the best response is a reactive, heroic, but probably hopeless neo-Luddism. Many post-Fordist accounts, on the other hand, have embraced so much of the information revolutionaries' own euphoria about the new subject of technology as to essentially abdicate the negative moment of critique and subscribe to capital's own logic of technological development. (p. 61)

Antonio Negri and the theory of the socialised worker  
So, Orthodox Marxism has failed to respond adequately to the 'information revolutionaries'. But Dyer-Witthford believes he has found a response within the heterodox currents of class struggle Marxism<sup>2</sup>. In particular within Autonomist Marxism<sup>3</sup>, or to be precise, within the writings

<sup>2</sup> Instead of seeing history as the unfolding of pre-given, inevitable, and objective laws, the class-struggle tradition argues that such "laws" are no more than the outcome of two intersecting vectors—exploitation and its refusal... (p.63).

<sup>3</sup> For Dyer-Witthford the key to autonomist theory is the inversion which rediscovers Marx's analysis affirming the power, 'not of capital, but of the creative human energy Marx called "labor" – "the living, form-giving flame" constitutive of society'. Capital attempts to incorporate labor as object, but this inclusion is never

fully achieved; workers struggle against subsumption and this struggle constitutes the working class. This perspective identifies the tendencies to incorporation within capital (as labour power) and independence from capital (as working class) as contending potentialities permeating the labor force.

The struggles of the working class are analysed using the concepts of *class composition* and *cycles of struggle*. Class composition is a process of cohesion, a measure of the ability of the class, through the interconnectedness of the multiplicity of its struggles, to constitute itself as a 'dynamic subject, an antagonistic force tending towards its own independent identity' (p.66). Capital must respond to this challenge by restructuring, comprising organisational changes and technological innovations, thereby *decomposing* this collectivity. But this restructuring requires new and different types of labor, opening up the possibility of working class *re-composition* with fresh capacities for resistance. This process of composition/decomposition/re-composition constitutes a *cycle of struggle*.

Within this cycle of struggle, however, there remains the possibility for the working class to rupture the recuperative movement of capital because, whilst capital needs labor, labor can dispense with the wage and organise its own creative energies; It is potentially autonomous.

Of primary importance for this book, of course, is the autonomist perspective on technology, which is seen by Dyer-Witthford to have two aspects. The first is an analysis of technoscience as an instrument of capitalist domination, a weapon against the working class. This is the perspective of Panzieri's rage against the use of machines to break class solidarity in the industrial factory. The second perspective is that of contestation, which is seen to take two forms.

On the one hand there is the sheer refusal of Negri's *Domination and Sabotage*, with similarities to the neo-Luddism criticised in the previous chapter. The other form of contestation central to autonomist theory, Dyer-Witthford asserts, and one which he sees giving its analysis greater dynamism than neo-Luddism, is that of workers using their 'invention power' to re-appropriate technology. This is the perspective of Berardi's 'worker's use of science' to 'subvert the instruments of information' as occurred in the pirate radio stations which played an important role in the *autonomia* movement.

Dyer-Witthford argues that maintaining both that machines can be used to dominate workers, and that workers can use said machines against capital, does not imply that they are 'neutral', there to be used or abused:

We can accept that machines are stamped with social purposes without accepting the idea that all of them are so deeply implanted with the dominative logic of capital as to be rejected. For if the capital relation to its very core is one of conflict and contradiction, [...] then this conflictual logic may enter into the very creation of technologies.

Thus, for example, automating machinery can be understood as imprinted with the capitalist's drive to deskill and control workers, and also with labor's desire for freedom from work-to which capital must respond by technological advance. [...] Along the way communication technologies have been shaped by both forces. This is not to say that technologies are neutral, but rather that they are often constituted by contending pressures that implant in them contradictory potentialities: which of these are realized is something that will be determined only in further struggle and conflict. (p.71-72)

This interpretation of autonomist analysis, therefore, allows Dyer-Witthford to 'reconceive the process of deconstructing and reconstructing technologies as itself part of the movement of the struggle against capital' (p.72).

of Antonio Negri and his collaborations within the French group *Futur Anterieur* during his exile.

Negri's theoretical trajectory in response to capitalist restructuring has been to develop the notion of the *socialised worker* as the new subject of struggle. As the foci of power of the mass worker became dispersed through outsourcing, subcontracting and other means of fragmenting the production process Negri argued that creation of value could no longer be seen as an activity restricted to the production process, and that the demarcation between production, circulation and reproduction had been dissolved<sup>4</sup>. For Negri, capital "socialises" itself to escape from the mass worker and in doing so refracts its conflictual tendency across the entire spectrum of social activity. Capital's insistence that lifetime be subordinated to profit has necessarily provoked antagonism, and for Negri there has been growing evidence of a new cycle of struggles – that of the socialised worker.

According to Negri, the new communicative capacities and technological competencies associated with this deployment of information technology have become the premises and prerequisites of everyday life in what Dyer-Witthford calls '*everyday life in a highly integrated technoscientific system permeated by machines and media*'. (p.84). But as the socialized worker develops these capabilities capital must ensure that they are deployed towards its ends rather than those of the workers. Thus the process of expropriation has changed qualitatively:

Capital must appropriate communication. It must expropriate the community and superimpose itself on the autonomous capability of manufacturing knowledge, reducing such knowledge to a mere means of undertaking of the socialised worker. This is the form which expropriation takes in advanced capitalism – or rather in the world economy of the socialised worker. (p.85 quoting from Negri, *Politics of Subversion* p.82. Emphasis in *Cyber-Marx*.)

A new form of expropriation is by definition a new form of the class struggle:

This antagonism can be schematically represented as a conflict between communication and information...(p.86)

The struggles that Negri has in mind within this formulation, according to Dyer-Witthford, include conflicts over 'team concepts' and 'quality circles' within production<sup>5</sup>,

<sup>4</sup> Dyer-Witthford seems not to feel the need to obliterate the demarcations between the different phases through which value passes in its process of self-expansion. But he clearly does not understand the circuit of capital. To Marx's phases of production and circulation he seeks to add the phases of the reproduction of labour power and the reproduction of nature. This fails to distinguish between the social forms through which capital moves and its prerequisites. Marx may have benefited from dialogue with feminists and environmentalists, but he would not have allowed the clarity of his critique of political economy to become clouded by 'political correctness'.

<sup>5</sup> The introduction of 'team concepts' to production serve two main purposes. One is ideological, seeking to replace antagonistic 'us and

alternative media contesting corporate control of news and imagery, struggles within schools and universities over the content of studies, patenting versus free use of medical and ecological knowledge, and the struggles against the corporate colonization of cyberspace. Just as all functional activities are now supposedly productive of value, all conflictual activities are immediately class struggle.

Dyer-Witthford acknowledges some of the criticisms which have been voiced against Negri's thesis, such as Alan Lipietz's accusation that Negri has embarked on a 'headlong voluntarist flight into the future' and Sergio Bologna's assertion that Negri was washing his hands of the continued difficulties of the mass worker to ply the traditional trade of the theorist in possession of some grand synthesis<sup>6</sup>. He considers also the argument put forward by George Caffentzis that rather than this process of unification and empowerment described by Negri the working class has rather experienced intensified fragmentation and hierarchization.

But the overall theoretical trajectory of his book illustrates his support for Negri's thesis. Indeed the concluding chapter of the whole book is a consideration of the work produced by Negri and his allies in the French journal *Futur Anterieur* which essentially consists of further development of the socialized worker thesis<sup>7</sup>.

### Information revolutionaries refuted?

If the central aim of this book was to refute the notion put forward by the information revolutionaries that recent technological developments have neutralised the possibilities for class struggle then Dyer-Witthford has provided ample empirical evidence that class antagonism continues to pervade contemporary capitalism<sup>8</sup>. By doing so he has made the case for the continued relevance of Marxism<sup>9</sup>.

But whether this analysis of concrete examples of struggles supports the ideas suggested by Negri for how contemporary struggles should be theorised is more questionable. Today's protagonists do indeed make use of the most efficient means of communication available to them, just as previous generations have. But does that justify

them' work cultures with a harmonious 'all working together' culture of identity with the firm. The other is organisational, replacing the discreet tasks of the Taylorised assembly lines with work teams who are flexible enough to cover each others absences and perform tasks such as maintenance during slack periods, thereby allowing a greater intensity of work. Quality circles are discussion forums which seek to engage workers to make suggestions for improving the efficiency of production; ensuring better quality products, speeding up production etc.

<sup>6</sup> See *Storming Heaven* by Steven Wright, particularly chapter 7 for more detail and a historical context for Negri's early theoretical development of the socialized worker and the opposition to him within *autonomia*.

<sup>7</sup> *Futur Anterieur* has developed the notion of 'mass intellectuality', which is the know-how required for the 'socialized worker' to perform the 'immaterial labour' which is his or her work.

<sup>8</sup> Chapter 5 looks at recent struggles throughout (Dyer-Witthford's reconceptualisation of) the circuit of capital and Chapter 6 considers movements against 'globalization'.

<sup>9</sup> And also his continuing relevance, as a Marxist, within academia. Dyer-Witthford teaches in the Faculty of Information and Media Studies at the University of Western Ontario.

abandoning theory which has proved central to an understanding of capital's process and our lives within and against it?

Despite insisting that society is still riven by class antagonism and that revolution is still both possible and desirable, both Negri and Dyer-Witheford broadly agree with all seven of the points outlined as defining the perspective of the information revolutionaries. That is not to argue that bourgeois theorists are necessarily wrong. Rather that their perspective is *necessarily* partial and therefore one-sided. One might expect a Marxist analysis to preserve the moments of truth in the information revolutionary's thesis whilst penetrating beyond the superficial appearance of advanced capitalism from which they have drawn their conclusions. Instead they have chosen to accept this appearance and decide that it is Marxism which needs reformulating.

We have major reservations concerning Negri's theory, concerning the questions of capital and the critique of political economy, the class struggle and revolution.

*1. Capital and the critique of political economy* We now live in an information society, supposedly. This viewpoint, which was perhaps more fashionable before the dot.com bubble burst a few years ago, sees the disappearance of traditional manufacturing industries from Western Europe and North America but the continued accretion of profits here. Blind to the fact that these profits are a mere distributional form of surplus value the bourgeois mind sees the activities giving rise to these profits as themselves wealth creating. And so does Dyer-Witheford. But this wealth is still created by surplus labour expended in the production of commodities. The profits made in the financial services sector, in retail, in the sphere of circulation, on which the UK economy in particular depends on so much, still have their origin in the alienated labour of workers in the sphere of production<sup>10</sup>.

Furthermore, if Negri and Dyer-Witheford were right that the valorisation process is no longer an aspect of the material production process, but instead occurs everywhere that human activity occurs, then we would have to base our drive for communism simply upon moralistic pleading for a better world for all. Capitalists are active too, after all. But not all activity is productive of capital. It is the wage-labour of the proletariat which produces capital. Thus bourgeois society is premised upon class exploitation. And we do not need to ground our trajectory towards communism upon utopian visions, but upon partisan class interest.

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<sup>10</sup> The extent to which mass production has been relocated to newly industrialising areas is often overlooked by those who propose theories of the information society, post-Fordism, the second phase of real subsumption, cybernetic capitalism etc. Without wishing to downplay the importance of changes which have occurred in North America and Western Europe it is important to recognise that those industries and working practices which advocates of these theories see as consigned to a bygone era are in fact alive and well. It is just that they have been shifted to what were once the peripheries of global capitalism. Theories which attempt to grasp contemporary capitalism by extrapolating from, say North American or West European experience, do not take account of basic facts such as that the industrial proletariat in China now outnumbers the entire working population of the USA.

*2. Class Struggle* Doesn't Dyer-Witheford insist on the continued centrality of class antagonism though? Well, not exactly. What remains of fundamental importance for him is the conflict between *capital and its labouring subjects*. But what are the theoretical and political consequences of transposing the conflict between capital and the proletariat into that between capital and 'its labouring subjects'?

This formulation neatly avoids having to deal with the question of class. Dyer-Witheford does not need to criticize or explore the real limits to and potentials of campaigns, coalitions or movements because we are all equally important under capital and do not need the development of a *class perspective*.

That is not to say that all struggles offer the same potential, or are equally important for Dyer-Witheford. Struggles are given importance according to the extent to which they operate upon the cyber-terrain of information technology. The conflict between 'capital and its labouring subjects' is understood to be the war between 'communication' and 'information', the battle for the 'general intellect'. This reformulation of the class struggle places words above actions, or the action of communication above any other subversive activity. The appeal of this to Dyer-Witheford is obvious. He correctly identifies that he is able to use as a logical conclusion to the book his own personal experience of subverting his role as a teacher in a University, deciding what to teach. The struggles of the intelligentsia, according to this analysis, now play a central role because they almost by definition concern the activity of communication. And dispensing with the need for a class perspective neatly sidesteps those thorny issues about the role of the radical intelligentsia in the struggles for the self-emancipation of the proletariat.

*3. Revolution* The treatment of the question of revolution correlates logically with the treatment of class struggle. For Dyer-Witheford this transformation is understood as 'autovalorisation' and occurs when the cycle of struggles achieves 'escape velocity'. Reducing the problematic from the qualitative one of the radicality of practical critique<sup>11</sup> to the quantitative one of gaining the necessary speed to escape capital's recuperative movement dispenses with the need to identify the limits of struggles in order to go beyond them in favour of a much more simple solution: one which can be measured in bytes per second.

Indeed, just as the intelligentsia are considered central to the new paradigm of class struggle, so they are to the process of revolution. Dyer-Witheford puts forward a 'battlefield map' of initiatives whose advancement would contaminate and overload the circuitry of capital with demands and requirements contradictory to the imperatives of profit (p.217). These include the campaign for a guaranteed income, the establishment of universal communications networks, and the use of these networks in participatory counter-planning and democratic control over scientific and technological development. In other words we

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<sup>11</sup> What do we mean? We mean the problematic of the class having the experiences through which it has defetishised the social relations of capital (or gained the consciousness as some would put it) and developed the physical capacity and level of violence required to expropriate the capitalist class, socialise production, resist and thereby liquidate state power.

are to take up the banners painted by radical academics and dissident professionals and rally to their causes. By doing so we will bring communism into being:

Pursuit of these interrelated measures would cumulatively undermine the logic that binds society around market exchange and increasingly require the reassembly of everyday activities into a new configuration. (p.217)

Notwithstanding Dyer-Witheford's warnings concerning capital's willingness to defend itself with violence this autovalorisation process seems to be a remarkably smooth one. Such ease is enabled by the ripeness of capitalism for such a transformation. Dyer-Witheford believes that this old world is pregnant with the new and that the gestation period has elapsed. This belief, and his willingness to swallow Negri's fantasies, are based, in the end, on his faith in the old man and his infamous '*Fragment on Machines*'

### The 'Fragment on Machines'

In the introduction to this book, as well as in its concluding chapter, Dyer-Witheford makes it abundantly clear that he attaches great importance to the '*Fragment on Machines*' from Marx's *Grundrisse*:

At a certain point, Marx predicts, capital's drive to dominate living labour through machinery will mean that "the creation of real wealth comes to depend less on labour time and on the amount of labour employed" than on "the general state of science and on the progress of technology. The key factor in production will become the social knowledge necessary for technoscientific innovation—"general intellect". (p.4)

There is no doubting that for Dyer-Witheford this time has finally come. And we can see how important such a belief is of his support for Negri and his reformulation of the class struggle. It is also clear how this return to the *Grundrisse* helps Dyer-Witheford to delineate the transformed nature of the transition to communism in the current epoch:

Automation, by massively reducing the need for labour, will subvert the wage relation, the basic institution of capitalist society. And the profoundly social qualities of the new technoscientific systems—so dependent for their invention and operation on forms of collective, communicative, co-operation—will overflow the parameters of private property. The more technoscience is applied to production, the less sustainable will become the attachment of income to jobs and the containment of creativity within the commodity form. In the era of general intellect "capital thus works towards its own dissolution as the form dominating production". (p.4)

Thus because Marx's prophecies have finally come true Dyer-Witheford can conceive of the transition to communism along the lines of the classic conceptual framework of the ripeness of the contradiction between the forces and relations of production.

Such an acceptance that Marx's prophecies have now been realised by the information revolution is completely arbitrary of course. Why now? Why not in the future? Capitalism is always *high-tech* in the present and only looks otherwise from a point not yet reached. But arguing about whether or not we have yet arrived at the time when these reformulations abandoning the law of value, transforming the essential form of expropriation and class struggle and the nature of the transition to communism become justified would miss the point. It would accept the elevated importance of Marx's '*Fragment of Machines*'.

George Caffentzis rightly points out in his polemic with Negri<sup>12</sup> that Marx returned to the questions first raised in the *Grundrisse* when he wrote *Capital*. The problem of the increasing use of machinery and with it the expulsion of living labour, the source of value, is addressed in Volume 3 of *Capital* in Part III on '*The Law of The Tendency Of The Rate Of Profit To Fall*'. Chapter 13 examining '*The Law As Such*' shows how as the proportion of total capital made up by constant capital increases (the increasing organic composition of capital) the *rate* of profit must decrease. But even in this chapter, which recognises that the portion of value in which labour power is expressed forms a diminishing part of total advanced capital, Marx is at pains to stress that absolute mass of labour put into motion by social capital grows. Indeed he argues that the absolute *mass* of profit must increase aside from temporary fluctuations. Furthermore the following chapter outlines the counteracting influences (increasing intensity of exploitation, depression of wages below the value of labour power, relative overpopulation, foreign trade and the increase of stock capital).

We are no longer presented with an image of technological development producing a capitalist mode of production which has undermined itself. Contradictions and crises yes, but not a technological limit beyond which the relations of production have become fetters upon the development of the productive forces. Rather the possibility of expanded accumulation of capital and of the wage form. Caffentzis is surely right to point towards the continued importance of the above counteracting tendencies, highlighting the existence of low organic composition sectors of capital and the massive increase in wage labour across previously undeveloped parts of the globe, and to argue that these low-tech industries pay a massive role in maintaining the average rate of profit.

Whilst Negri and Dyer-Witheford remain enchanted by the visionary seductiveness of this evocative passage from the *Grundrisse* we are less inclined to ignore the fact that after much reflection Marx's analysis was much more sombre. We are not inclined to believe we have arrived, or ever will, at the point where our understanding of capital, class and revolution will need to be abandoned in favour of these poetic reformulations.

Like Dyer-Witheford we are driven by change to theorise developments, and develop our theory. The adequacy of our concepts must continually be questioned. We too appreciate the huge significance of the *Grundrisse* in

<sup>12</sup> *The End of Work or the Renaissance of Slavery? A Critique of Rifkin and Negri* by George Caffentzis. Available at <http://oldlists.village.virginia.edu/~spoons/global/Papers/caffentzis>

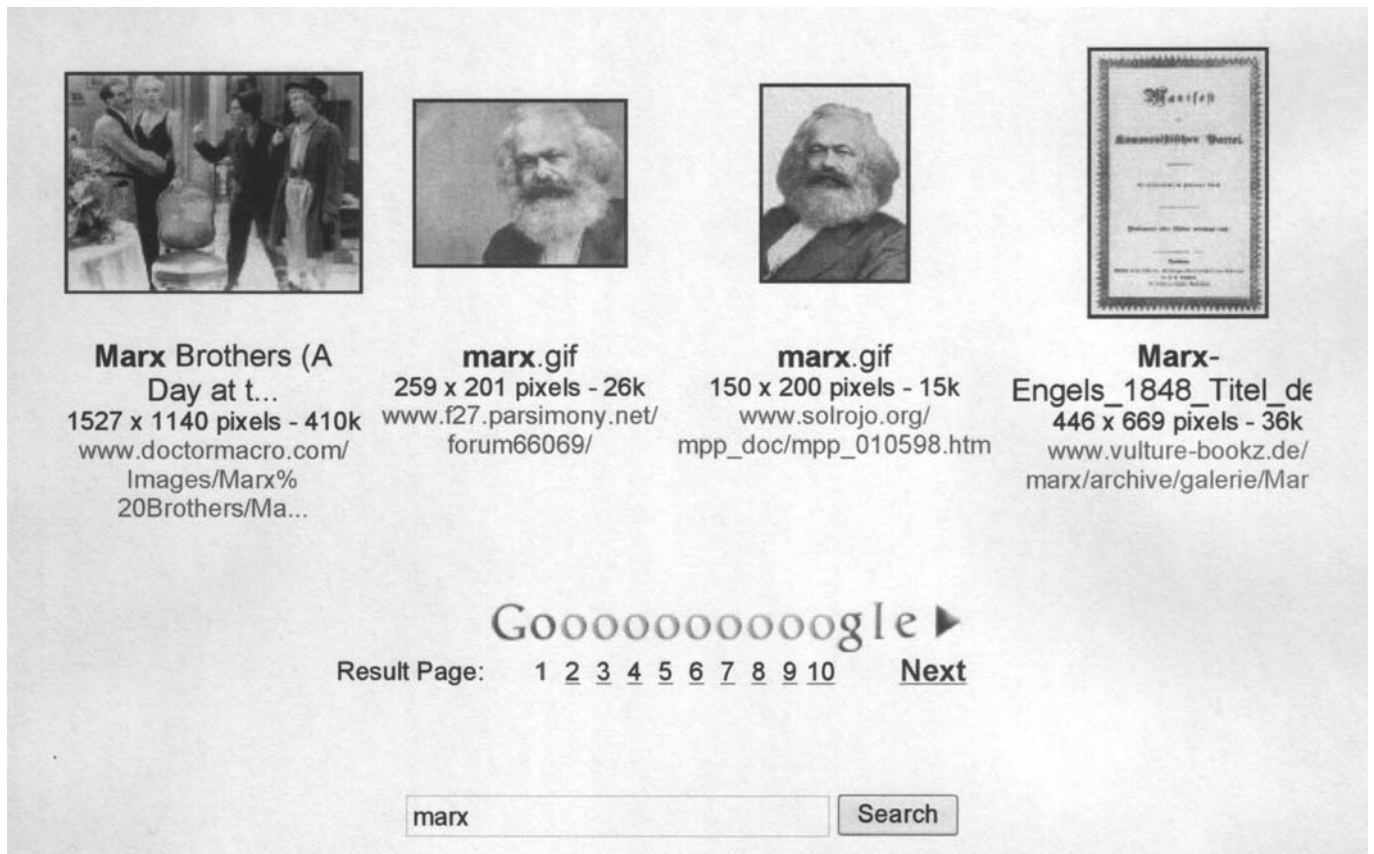
pointing beyond the objectified categories preserved by orthodox Marxism. And we too have drawn inspiration from the work of Negri. But we reject a fetishistic relationship with the 'Fragment on Machines' as being the basis for finding our way forward.

**Conclusion**

George Caffentzis argues that Negri has lost sight of the real class struggle today because he has spent too much time focussing on a small circle of post-modern thinkers. Perhaps Dyer-Witheford has spent too much time listening to the inflated claims of 'information revolutionaries'. His book

tackles a lot of important issues. He has done a lot of research into the class struggle today. And he will no doubt play an important role in identifying and articulating the new vectors of struggle which will undoubtedly emerge from those industries created since the defeat of the post-war offensive against capital.

Anyone reading this magazine would find much of interest in *Cyber-Marx*. But if what they are really interested in is 'cycles and circuits of struggle in high-technology capitalism', the return of wildcat strikes last year in the Post Office, and this year's dramatic wildcat strike by catering workers and baggage handlers at British Airways suggests that there will be better, if less evocative, ways of understanding the class struggle today than those proposed in Dyer-Witheford's 'battle for the general intellect'.



Above: Cyber-Marx