

The Internet Revolution

From Dot-com Capitalism to Cybernetic Communism

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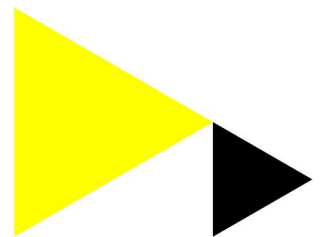
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The Internet Revolution

*From Dot-com Capitalism
to Cybernetic Communism*

**RICHARD BARBROOK
WITH ANDY CAMERON**

Network¹⁰
Notebooks

The Internet Revolution

*From Dot-com Capitalism
to Cybernetic Communism*

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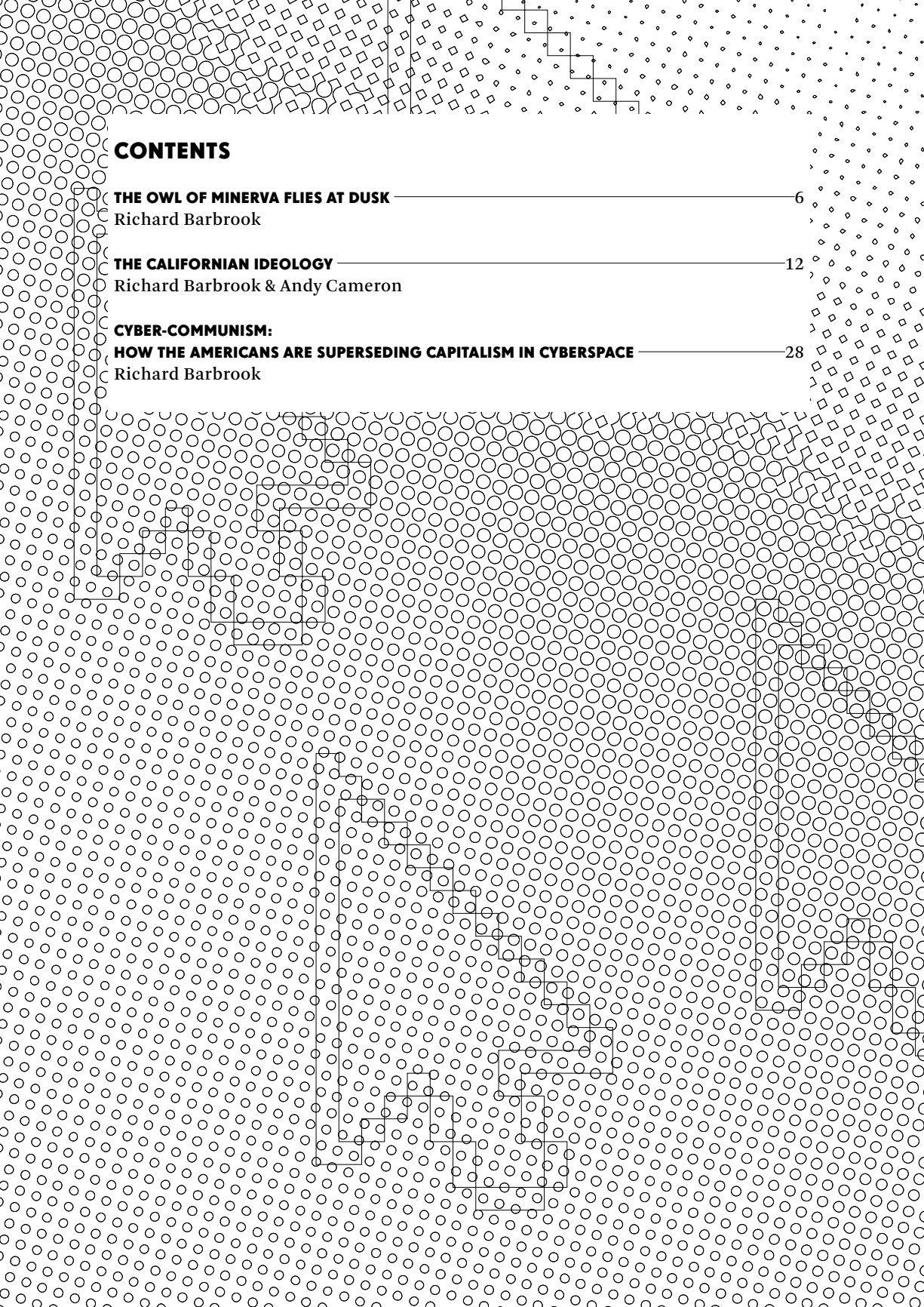
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Richard Barbrook

COLOPHON

Network Notebook #10

Richard Barbrook with Andy Cameron

The Internet Revolution: From Dot-com Capitalism to Cybernetic Communism

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Dedicated to Andy Cameron

1959-2012

Friend, colleague and inspiration

The Compañero Presidente says: "Government is the people."

The wishes of the people will be made known to the government at all times.

We will use TECHNOLOGY, which belongs to the people, to do it.

STAFFORD BEER, BRAIN OF THE FIRM

The Owl of Minerva Flies at Dusk

RICHARD BARBROOK

We have no future. (...) Fully imagined futures were the luxury of another day, one in which "now" was of some greater duration. For us, of course, things change so abruptly, so violently, so profoundly, that futures like our grandparents' have insufficient "now" to stand on. We have no future because our present is too volatile.

William Gibson, Pattern Recognition

Welcome to the corporeal past of the virtual future! This pamphlet contains two essays written during the 1990s when the Net first became an essential part of everyday life. Nowadays, as citizens of post-industrial societies, we take it for granted that we can use our computers to communicate and share information with people across the world. Crucially, for the 20-something students who I teach at the University of Westminster, the Net has always been there. They find it difficult to comprehend how their parents' generation could have ever socialised, worked, shopped or agitated without the aid of PCs, laptops, tablets and mobile phones. Not surprisingly, their sense of self is constructed through a digital identity. They fall in love – and tell everyone by updating their Facebook status. They have to write an essay – and begin by consulting Wikipedia. They are outraged by a political crisis – and protest with a flurry of Twitter messages. They decide to watch a movie – and immediately download it with BitTorrent. They go partying with their friends – and then send funny photos of the evening to them using SnapChat. They discover a new style of music – and are soon listening to its proponents on SoundCloud. They have close relatives in faraway countries – and always keep in touch through Skype. As one of my students recently told me, the Net isn't a magical technology when you've had the same email address since you were twelve. She is undoubtedly correct. Like water, power or transport, computer-mediated communications has become a public utility: the precondition of social existence. When all of your friends and family are online, interactivity is banality.

By reading this book, you are travelling back to a very different time when the Net was still a magical technology. At the beginning of the 1990s, France was the only country on the planet where people outside the academy had easy access to computer-mediated communications. By distributing the terminals of its Minitel system for free, the nationalised telephone company had created the infrastructure for a multiplicity of online services. On a visit to Paris in 1984, I was amazed by the potential of this precursor of the Net. My techie friends in London were using bulletin boards to communicate with each other, but these digital hang-outs were solely for computer geeks. In contrast, the Minitel system had been designed so that anyone who was able to afford its premium phone lines could access this computer network. Despite the simple interface and limited bandwidth, its subscribers pioneered many of the services which would later flourish on the Net: real-time information, virtual communities and e-commerce. For years after my Paris trip, I was convinced that the Minitel system would sooner or later be launched in England. Unfortunately, after its privatisation by Margaret Thatcher's neoliberal government in 1984, British Telecom was much more interested in making easy money out of installing broadband connections for the City of London's financial institutions than engaging in an expensive long-term investment in network computing for the masses. While my French friends

were happily chatting, flirting, politicking and shopping on Minitel, anyone who wasn't a techie in 1980s England remained excluded from the virtual world. Like high-speed railways, computer-mediated communications was strictly for continental Europeans.

As its name suggests, the first essay in this pamphlet – *The Californian Ideology* – was written in response to the different path to the digital future taken in early-1990s England. Despite British Telecom's retrograde policies, the falling prices of PCs and modems had enabled a growing number of people who weren't working or studying at a university to access online services. Like Minitel users in France, these early adopters of the Net were not deterred by the command lines and slow speeds of the wonderful technology which enabled them to send emails, participate in newsgroups and share files with each other. When the Mosaic web browser was released in 1993, its point-and-click graphical interface catalysed the rapid transformation of this esoteric hobby into a mass phenomenon. Unlike the simple terminals of Minitel, the Net would be built upon the greater processing power of the PC. Within a few years, its users were able to download not only text files, but also graphics, sound and video. At long last, the English could now participate within virtual communities, contribute to online forums and carry out e-commerce. In September 1994, I was among the boisterous crowd at the launch party of the world's first cybercafé: Cyberia. A decade earlier, I'd seen the digital future in Paris. Looking at the PCs lined up around the room, I now understood that the shape of things to come had finally arrived in London. Most gratifyingly, I'd been proved right that the English would embrace network computing with enthusiasm. Yet, I'd also been convinced that this new technology would be imported from France. How wrong I'd been in my assumption. Like its software, the inspiration for Cyberia had come from a very different location: California.

'Have you seen this nonsense?' Andy Cameron thrust the latest issue of *Wired* – San Francisco's must-read magazine for new media enthusiasts – into my hands and pointed to yet another article enthusing about the venture capitalists of Silicon Valley. 'I'm fed up with English people who would never support privatising the National Health Service, but, as soon as it comes to the Net, they embrace every neoliberal idiocy advocated by this publication!' It was 1995 and we'd just set up the Hypermedia Research Centre at the University of Westminster. Andy was already working with a group of talented undergraduates who would later find fame as the interactive designers of the Antirom collective. A year earlier, he'd recruited me to help him to set up the first postgraduate degree in Europe focused on the Net: the MA in Hypermedia Studies. On that spring evening, Andy now had another brilliant idea: 'Why don't we both write an article exposing the follies of *Wired* magazine? If nothing else, it would be our manifesto for the Hypermedia Research Centre which differentiates us from the West Coast neoliberals!' Over the next few weeks, with the aid of plenty of beer and weed, we worked hard on creating the opening essay of this pamphlet. Even now, after so many years, I can still recognise who wrote the first draft of key passages in its text. By taking turns to revise the article, we were eventually able to synthesise our ideas into the final version of *The Californian Ideology*. Pleased with our collaborative effort, we next arranged for this polemic to be posted on the nettime mailing list and published by *Mute* magazine. Initially, we'd hoped that our essay might encourage some critical thinking amongst the pioneers of the Net in England. Much to our surprise, we soon realised that we'd written the canonical text of 1990s dot-com scepticism. Within a few years, *The Californian Ideology* had been translated into several different languages and republished in many different formats. Louis Rossetto – the editor of *Wired* – was

forced to issue a defence of his journal's deficiencies. Ironically, given our denunciations of biobabble, the title of our article became a meme: the quick way of defining the nasty neoliberal politics of Silicon Valley entrepreneurs. Most wonderfully, lots of people who'd never read *The Californian Ideology* knew exactly what we meant by this phrase.

Twenty years on, with the colonisation of the Net by corporate behemoths and the exposure of their collaboration with the USA's spy agencies, the central arguments in our text no longer appear as controversial as they did when it first appeared. Yet, despite the changed historical circumstances, the widespread belief in the inherently liberating power of information technologies hasn't disappeared. As the dot-com boosters boasted, the 2011 Arab Spring and Occupy protests proved that commercial platforms like Facebook and Twitter can be utilised for subversive goals. For large numbers of people, the emancipated future is still made-in-the-USA. Even though *The Californian Ideology* was published in the last century, its analysis has never been more relevant. When we wrote the article, our aim was to expose the most glaring inconsistencies within the laissez-faire politics of *Wired* magazine which are still being promulgated today in new disguises:

- the identification of Silicon Valley's 1990s hi-tech neoliberalism with San Francisco's 1960s hippie counter-culture;
- the assertion that the Net was solely created by heroic entrepreneurs rather than a combination of public, private and community initiatives;
- the McLuhanist claim that media technologies not human actions are the subject of history;
- the celebration of the Net as the realisation of 'Jeffersonian democracy' with no sense of irony about Thomas Jefferson being a slave-owner.

As an ex-member of a Trotskyist sect, Andy had been schooled in the Bolshevik technique of ideology critique. According to V.I. Lenin, the ruling class dominated the masses by imposing its self-interested view of reality upon them through the media, education and religion. For the Bolsheviks, the primary task of the revolutionary movement was discrediting the ideas of their reactionary opponents. When our article appeared, Andy was most amused at how many people read it in this way. While the text was designed to make the admirers of *Wired* question its neoliberal vision of the Net, we'd never any illusions about the power of mere words. Crucially, the title of our piece was a remix of Karl Marx and Friedrich Engels' famous polemic against their erstwhile Young Hegelian comrades: *The German Ideology*. In contrast with Lenin, they'd argued that people's consciousness of the world was shaped by the material conditions of the historical moment. Ideology was a symptom not the essence of class rule. We understood the implications of their wisdom for our own work. Damning denunciations of *Wired* couldn't discredit this magazine's most convincing argument in favour of hi-tech neoliberalism: the Net was being built on the West Coast. In the conclusion of our article, we urged the digital artisans of Europe to open up a more inclusive and equalitarian path of development towards the information society. Ideology critique was only the beginning of this difficult process. Supplanting the Californian vision of the digital future would require the innovation of a better political economy.

The second article in this book – *Cyber-communism* – was published four years after our diatribe against *Wired* magazine appeared. In the intervening period, the Net had become the iconic technology of the decade. Immune to all criticism, the Californian Ideology was now triumphant. According to both media pundits and academic experts, the Net was creating a ‘new paradigm’ of global entrepreneurial capitalism which would soon sweep away the state regulations and bureaucratic monoliths of the industrial epoch. Enthused by this neoliberal prophecy, investors were pushing up the prices of the stocks of the new media companies being launched on Wall Street to ever higher levels: the dot-com bubble. No one wanted to miss getting a piece of the next Microsoft or Apple before it became super-profitable. In 1998, as this speculative frenzy was reaching its peak, I was contacted by Lance Strate from Fordham University in New York who was organising the 50th anniversary celebration of the first time that Marshall McLuhan had taught at this esteemed institution. ‘We’ve got lots of academics giving papers at our event,’ he told me, ‘but they’re all very respectable. I was wondering whether you could stir things up by creating a suitably wacky McLuhan-style ‘thought probe’ for the conference?’ Intrigued by Lance’s request, I set to work on the lecture which was the starting point for the second article in this book. Back in the 1960s, McLuhan’s thought probes had provoked his audiences with wild assertions which encouraged them think about contemporary reality in a different way. For instance, in one of his most famous slogans, he emphasised that people were more influenced by the psychological impact of communications technologies than their ideological content: ‘the medium is the message’. Much to his delight, McLuhan had succeeded in outraging both the defenders of bourgeois morality and the devotees of Bolshevik politics. My task for Lance was now to devise a similarly contrarian proposition. Since the conventional wisdom in the late-1990s was that the Net was the apotheosis of free market capitalism, I thought why not argue the exact opposite? The faith of the Californian Ideologists in the unilinear march of history towards hi-tech neoliberalism had long reminded me of Stalinist hymns to the inevitable victory of ‘really existing socialism’ during the Cold War. The widespread flouting of copyright could easily be interpreted as the imminent demise of commodity production within the emerging information economy. Delighted that I’d found the perfect thought probe, I was ready for my intervention at Fordham’s McLuhan conference. When my turn came, I went up to the podium and began my talk by loudly proclaiming: ‘At the height of the Cold War, the US military funded the creation of the only working model of communism in human history: the Internet!’

On my return to London, I transformed my performance at Fordham into the second article in this book which soon appeared in various mixes both in print and online. For those who thought that the co-author of *The Californian Ideology* must be an intransigent anti-American, my apparent enthusiasm in *Cyber-communism* for the Promethean possibilities of that nation’s dot-com companies was puzzling. Even worse, the original version of the text concluded with an outrageous dedication to the USAF pilots who’d provided air support for the UÇK partisans during the 1999 Kosova War of Independence. Since the article was constructed as a McLuhan-style thought probe, this provocative stance was entirely deliberate. At the turn of the millennium, the American empire was still the undisputed hegemon of the world system. The implosion of the USSR had not only removed its only serious imperialist rival, but also discredited the ideological appeal of all forms of socialism. Notoriously, its ruling elite was now convinced that the USA’s brand of neoliberal capitalism was the apogee of human civilisation: the Hegelian ‘end of history’. Channelling McLuhan, my goal in *Cyber-communism* was to turn this smug triumphalism

against itself. Back in the 1920s and 1930s, both Social Democrats and Council Communists had argued that the Bolshevik regime was transforming the Russian economy into a totalitarian version of an American automobile factory: state capitalism. Reversing this identification, my article pointed out that the dot-com capitalists of Silicon Valley were perpetuating Joseph Stalin's enthusiasm for technological elitism and production as an end in itself. In this Hegelian dialectic, the ideological fervour of superpower rivalry during the Cold War had always hidden a mutual commitment to the economic rationality of managerial hierarchy. If the USSR was state capitalist, then the USA must be a privatised form of socialist planning.

By refuting the Cold War's geopolitical orthodoxies, my aim was to revive the previous century's definition of communism for the next one. Before the Bolsheviks' 1917 seizure of power in Russia, Social Democrats in Europe had interpreted this phrase as the promise of an emancipated future beyond capitalism. As Marx emphasised, it would only be possible to create this new society once all of the possibilities of the old system were exhausted. The Left's day-to-day struggles for political democracy and economic prosperity were helping to speed up the evolution of capitalism towards its final demise. If understood in Marx's meaning, this meant that the most communist country on the planet in the late-1990s must be the global hegemon: the USA. Through this paradoxical insight, the shift within cultural production towards user-generated content became the harbinger of a more profound social transformation. When sharing information on the Net, American neoliberals were spontaneously abandoning the capitalist way of doing things: buying and selling in the marketplace. In their relentless search for profits, Silicon Valley's companies were building the infrastructure for the next stage of human civilisation: the hi-tech gift economy.

Looking back from the second decade of the 21st century, my McLuhanist satire of the dot-com bubble now seems both prescient and dated. Having at long last tired of Post-Modernism's atemporality, Left academics have recently rediscovered Marx's subversive interpretation of the grand narrative of history. Echoing the arguments of *Cyber-communism*, they also emphasise that humanity can only escape from capitalist exploitation by fully realising all of its emancipatory potential: 'accelerationism'. However, in contrast with my article, these born-again Marxists are no longer sure that the cutting-edge of progress is located in the USA. During the intervening period, this global hegemon has faced increasing problems at home: political gridlock, decaying infrastructure, endemic corruption, financial crises and increasing inequality. Above all, the American empire has not only fought and lost two brutal wars in Afghanistan and Iraq, but also embarked on a megalomaniac scheme to spy on the personal communications of everyone on the planet. Not surprisingly, the concluding flourish of *Cyber-communism* which counterposed the modernising energy of the USA with the regressive involution of Serbia now appears absurd. In 1999, because the UÇK was founded by Maoists, the Kosovar exiles who I met in London were very cynical about the Americans' motivations for suddenly switching to their side in the Balkans conflict. Despite this Left scepticism, when the global imperialist helped them to defeat the regional imperialist, they were still convinced that their newly liberated nation had finally joined the modern world. Yet, in retrospect, it is Slobodan Milošević's Serbia in the 1990s that now looks like a premonition of the nightmare politics of 2010s Western capitalism: an ex-banker despot presiding over a regime which combined the worst features of neoliberalism and fascism. As I write this introduction,

the civilian populations of Gaza, Mosul and Donetsk are paying a heavy price for the hegemon's flight from modernity. If these horrors in the borderlands aren't to spread across the entire imperial system, a new strategy for accelerating into the better future is now urgently required.

The two essays from the 1990s in this book are a small contribution to formulating the escape from our contemporary predicament. Today, for many of its former enthusiasts, the utopian promises of the information society have been fatally betrayed by the corporatisation and militarisation of the Net. However, although *The Californian Ideology* anticipated their critical attitude to Silicon Valley hype, Andy and I also emphasised that there was nothing inevitable about the ascendancy of hi-tech neoliberalism. In its conclusion, our article pointed out that the Minitel system was built upon a different political economy than its American rival. Contradicting *Wired* magazine's horror at the leading role of a state-owned telecommunications monopoly, the French version of packet-switched networking was able to commodify all of its online services by delivering them through premium phone lines. Ironically, as my *Cyber-communism* piece celebrated, it is the made-in-the-USA internet which has always had difficulties in applying the dogmas of bourgeois economics within its virtual world. User-generated content and open source software are the creations of voluntary labour. Through these two insights, the newly fashionable pose of technological pessimism can be dismissed with ease. The story of Minitel proves that computer-mediated-communications isn't inherently neoliberal in its social implementation. The importance of the hi-tech gift economy demonstrates that online collective labour can be organised effectively without requiring money-commodity relations. Back in the 1950s, Aksel Berg, Oscar Lange and other reformers in the East dreamt of replacing the top-down planning of the Stalinist bureaucracy with bottom-up decision-making by producers and consumers over a computer network: cybernetic communism. With our much superior hardware and software, we now have the opportunity to transform their theoretical speculations into lived reality. By reshaping the Net in our own interests, both the authoritarian state and the oligarchic marketplace can be superseded by a massive multi-player participatory democracy. Let's resume the acceleration into the emancipated future and dedicate our energies to creating a truly human civilisation!

Richard Barbrook
London, England

The Californian Ideology

RICHARD BARBROOK & ANDY CAMERON

Not to lie about the future is impossible and one can lie about it at will.

Naum Gabo and Anton Pevsner, *The Realistic Manifesto* (1920)

AS THE DAM BURSTS

At the end of the 20th century, the long predicted convergence of the media, computing and telecommunications into hypermedia is finally happening.⁰¹ Once again, capitalism's relentless drive to diversify and intensify the creative powers of human labour is on the verge of qualitatively transforming the way in which we work, play and live together. By integrating different technologies around common protocols, something is being created which is more than the sum of its parts. When the ability to produce and receive unlimited amounts of information in any form is combined with the reach of the global telephone networks, existing forms of work and leisure can be fundamentally transformed. New industries will be born and current stock market favourites will swept away. During such moments of profound social change, anyone who can offer a simple explanation of what is happening will be listened to with great interest. At this crucial juncture, a loose alliance of writers, hackers, capitalists and artists from the West Coast of the USA have succeeded in defining a heterogeneous orthodoxy for the coming information age: the Californian Ideology.

This new faith has emerged from a bizarre fusion of the cultural bohemianism of San Francisco with the hi-tech industries of Silicon Valley. Promoted in magazines, books, TV programmes, websites, newsgroups and Net conferences, the Californian Ideology promiscuously combines the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies. This amalgamation of opposites has been achieved through a profound faith in the emancipatory potential of the new information technologies. In the digital utopia, everybody will be both hip and rich. Not surprisingly, this optimistic vision of the future has been enthusiastically embraced by computer nerds, slacker students, innovative capitalists, social activists, trendy academics, futurist bureaucrats and opportunistic politicians across the USA. As usual, Europeans have not been slow in copying the latest fad from America. While a recent EU Commission report recommends following the Californian 'free market' model for building the 'information superhighway', cutting-edge artists and academics eagerly imitate the 'post-human' philosophers of the West Coast's Extropian cult.⁰² With no obvious rivals, the triumph of the Californian Ideology appears to be complete.

The widespread appeal of these West Coast ideologues isn't simply the result of their infectious optimism. Above all, they are passionate advocates of what appears to be an

01 | For over 25 years, experts have been predicting the imminent arrival of the information age, see Alain Touraine, *La Société Post-Industrielle*, Paris: Editions Denoël, 1969; Zbigniew Brzezinski, *Between Two Ages*, New York: Viking Press, 1970; Daniel Bell, *The Coming of the Post-Industrial Society*, New York: Basic Books, 1973; Alvin Toffler, *The Third Wave*, London: Pan, 1980; Simon Nora and Alain Minc, *The Computerisation of Society*, Cambridge, Mass.: MIT Press, 1980; and Ithiel de Sola Pool, *Technologies of Freedom*, Cambridge, Mass.: Belknap Press, 1983.

02 | See Martin Bangemann, *Europe and the Global Information Society*, Brussels: European Union, 1994; and the programme and abstracts for *Virtual Futures '95*, Conference by CCRU, Warwick University, Coventry, 25-28 May 1995, <http://virtualfutures.co.uk/conferences/1995>.

impeccably libertarian form of politics – they want information technologies to be used to create a new ‘Jeffersonian democracy’ where all individuals will be able to express themselves freely within cyberspace.⁰³ However, by championing this seemingly admirable ideal, these techno-boosters are at the same time reproducing some of the most atavistic features of American society, especially those derived from the bitter legacy of slavery. Their utopian vision of California depends upon a wilful blindness towards the other – much less positive – features of life on the West Coast: racism, poverty and environmental degradation.⁰⁴ Ironically, in the not too distant past, the intellectuals and artists of the Bay Area were passionately concerned about these issues.

RONALD REAGAN V. THE HIPPIES

On 15th May 1969, Governor Ronald Reagan ordered armed police to carry out a dawn raid against hippie protesters who had occupied People’s Park near the Berkeley campus of the University of California. During the subsequent battle, one man was shot dead and 128 other people needed hospital treatment.⁰⁵ On that day, the ‘straight’ world and the counter-culture appeared to be implacably opposed. On one side of the barricades, Governor Reagan and his followers advocated unfettered private enterprise and supported the invasion of Vietnam. On the other side, the hippies championed a social revolution at home and opposed imperial expansion abroad. In the year of the raid on People’s Park, it seemed that the historical choice between these two opposing visions of America’s future could only be settled through violent conflict. As Jerry Rubin, one of the Yippie leaders, said at the time: ‘Our search for adventure and heroism takes us outside America, to a life of self-creation and rebellion. In response, America is ready to destroy us.’⁰⁶

During in the 1960s, radicals from the Bay Area pioneered the political outlook and cultural style of New Left movements across the world. Breaking with the narrow politics of the post-war era, they launched campaigns against militarism, racism, sexual discrimination, homophobia, mindless consumerism and pollution. In place of the traditional left’s rigid hierarchies, they created collective and democratic structures which supposedly prefigured the libertarian society of the future. Above all, the Californian New Left combined political struggle with cultural rebellion. Unlike their parents, the hippies refused to conform to the rigid social conventions imposed on ‘organisation man’ by the military, the universities, the corporations and even left-wing political parties. Instead they openly declared their rejection of the straight world through their casual dress, sexual promiscuity, loud music and recreational drugs.⁰⁷

03 | See Mitch Kapor, ‘Where is the Digital Highway Really Heading?’, *Wired* 1:3 (July/August 1993), pp. 53-59, 94, <http://archive.wired.com/wired/archive/1.03/kapor.on.nii.html>.

04 | See Mike Davis, *City of Quartz*; London: Verso, 1990; Richard Walker, ‘California Rages Against the Dying of the Light’, *New Left Review* 209 (January-February 1995), pp. 42-74; and the records of Ice-T, Snoop Dogg, Dr. Dre, Ice Cube, NWA and many other West Coast rappers.

05 | See George Katsiaficas, *The Imagination of the New Left: A Global Analysis of 1968*, Boston: South End Press, 1987, p. 124.

06 | Jerry Rubin, ‘An Emergency Letter to My Brothers and Sisters in the Movement’, in Peter Stansill and David Zane Mairowitz (eds), *BAMN: Outlaw Manifestos and Ephemera 1965-70*, London: Penguin, 1971, p. 244. The Yippies were members of the Youth International Party – an influential group within the American New Left of the late-1960s and early-1970s.

07 | For the key role played by popular culture in the self-identity of the American New Left, see Katsiaficas, *The Imagination of the New Left*; and Charles Reich, *The Greening of America*, New York: Random House, 1970. For a description of the lives of white-collar workers in 1950s America, see William Whyte, *The Organization Man*, New York: Simon & Schuster, 1956.

The radical hippies were liberals in the social sense of the word. They championed universalist, rational and progressive ideals, such as democracy, tolerance, self-fulfilment and social justice. Emboldened by over twenty years of economic growth, they believed that history was on their side. In sci-fi novels, they dreamt of ‘ecotopia’: a future California where cars had disappeared, industrial production was ecologically viable, sexual relationships were egalitarian and daily life was lived in community groups.⁰⁸ For some hippies, this vision could only be realised by rejecting scientific progress as a false God and returning to nature. Others, in contrast, believed that technological progress would inevitably turn their libertarian principles into social fact. Crucially, influenced by the theories of Marshall McLuhan, these technophiliacs thought that the convergence of media, computing and telecommunications would inevitably create the *electronic agora* – a virtual place where everyone would be able to express their opinions without fear of censorship.⁰⁹ Despite being a middle-aged English professor, McLuhan preached the radical message that the power of big business and big government would be imminently overthrown by the intrinsically empowering effects of new technology on individuals.

*Electronic media (...) abolish the spatial dimension (...) By electricity, we everywhere resume person-to-person relations as if on the smallest village scale. It is a relation in depth, and without delegation of functions or powers (...) Dialogue supersedes the lecture.*¹⁰

Encouraged by McLuhan’s predictions, West Coast radicals became involved in developing new information technologies for the alternative press, community radio stations, home-brew computer clubs and video collectives. These community media activists believed that they were in the forefront of the fight to build a new America. The creation of the electronic agora was the first step towards the implementation of direct democracy within all social institutions.¹¹ The struggle might be hard, but ‘ecotopia’ was almost at hand.

THE RISE OF THE VIRTUAL CLASS

Who would have predicted that, in less than 30 years after the battle for People’s Park, squares and hippies would together create the Californian Ideology? Who would have thought that such a contradictory mix of technological determinism and libertarian individualism would become the hybrid orthodoxy of the information age? And who would have suspected that as technology and freedom were worshipped more and more, it would become less and less possible to say anything sensible about the society in which they were applied?

08 | In a best-selling novel of the mid-1970s, the northern half of the West Coast has seceded from the rest of the USA to form a hippie utopia, see Ernest Callenbach, *Ecotopia*, New York: Bantam, 1975. This idealisation of Californian community life can also be found in John Brunner, *The Shockwave Rider*, London: Methuen, 1975; and even in later works, such as Kim Stanley Robinson, *Pacific Edge*, London: Grafton, 1990.

09 | For an analysis of attempts to create direct democracy through media technologies, see Richard Barbrook, *Media Freedom: The Contradictions of Communications in the Age of Modernity*, London: Pluto 1995, pp. 75-189.

10 | Marshall McLuhan, *Understanding Media: The Extensions of Man*, London: Routledge & Kegan Paul, 1964, pp. 255-256. Also see Marshall McLuhan and Quentin Fiore, *The Medium is the Massage*, London: Penguin, 1967; and Gerald Emanuel Stern (ed.), *McLuhan: Hot & Cool*, London: Penguin, 1968.

11 | See John Downing, *Radical Media*, Boston: South End Press, 1984.

The Californian Ideology derives its popularity from the very ambiguity of its precepts. Over the last few decades, the pioneering work of the community media activists has been largely recuperated by the hi-tech and media industries. Although companies in these sectors can mechanise and sub-contract much of their labour needs, they remain dependent on key people who can research and create original products, from software programs and computer chips to books and TV programmes. Along with some hi-tech entrepreneurs, these digital artisans form the so-called 'virtual class': '...the techno-intelligentsia of cognitive scientists, engineers, computer scientists, video-game developers, and all the other communications specialists...'.¹² Unable to subject them to the discipline of the assembly-line or replace them by machines, managers have organised such skilled workers through fixed-term contracts. Like the 'labour aristocracy' of the 19th century, core personnel in the media, computing and telecoms industries experience the rewards and insecurities of the marketplace. On the one hand, these digital artisans not only tend to be well-paid, but also have considerable autonomy over their pace of work and place of employment. As a result, the cultural divide between the hippie and the organisation man has now become rather fuzzy. Yet, on the other hand, these skilled workers are tied by the terms of their contracts and have no guarantee of continued employment. Lacking the free time of the hippies, work itself has become the main route to self-fulfilment for much of the virtual class.¹³

The Californian Ideology offers a way of understanding the lived reality of these digital artisans. On the one hand, these core workers are a privileged part of the labour force. On the other hand, they are the heirs of the radical ideas of the community media activists. The Californian Ideology, therefore, simultaneously reflects the disciplines of market economics and the freedoms of hippie artisanship. This bizarre hybrid is only made possible through a nearly universal belief in technological determinism. Ever since the 1960s, liberals – in the social sense of the word – have hoped that the new information technologies would realise their ideals. Responding to the challenge of the New Left, the New Right has resurrected an older form of liberalism: economic liberalism.¹⁴ In place of the collective freedom sought by the hippie radicals, they have championed the liberty of individuals within the marketplace. Yet even these conservatives couldn't resist the romance of the new information technologies. Back in the 1960s, McLuhan's predictions were reinterpreted as an advertisement for new forms of media, computing and telecommunications being developed by the private sector. From the 1970s onwards, Alvin Toffler, Ithiel de Sola

12 | Arthur Kroker and Michael A. Weinstein, *Data Trash: The Theory of the Virtual Class*, Montreal: New World Perspectives, 1994, p. 15. This analysis follows that of those futurologists who thought that 'knowledge workers' were the embryo of a new ruling class, see Bell, *The Coming of the Post-Industrial Society*; and economists who believe that 'symbolic analysts' will be the dominant section of the workforce under globalised capitalism, see Robert Reich, *The Work of Nations: A Blueprint for the Future*, London: Simon & Schuster, 1991. In contrast, back in the 1960s, some New Left theorists believed that these scientific-technical workers were leading the struggle for social liberation through their factory occupations and demands for self-management, see Serge Mallet, *The New Working Class*, Nottingham: Spokesman Books, 1975.

13 | See Dennis Hayes, *Behind the Silicon Curtain*, London: Free Association Books, 1989, for a description of contract work in Silicon Valley; and, for a fictional treatment of the same subject, see Douglas Coupland, *Microserfs*, London: Flamingo, 1995. For more theoretical examinations of post-Fordist labour organisation, see Alain Lipietz, *L'Audace ou l'enlèvement*, Paris: Éditions la Découverte, 1984; and *Mirages and Miracles*, London: Verso, 1987; Benjamin Coriat, *L'Atelier et le robot*, Paris: Christian Bourgois Éditeur, 1990; and Toni Negri, *Revolution Retrieved: Selected Writings on Marx, Keynes, Capitalist Crisis & New Social Subjects 1967-83*, London: Red Notes, 1988.

14 | As Seymour Martin Lipset points out, anti-statism liberalism has – and still is – the underlying basis of American politics on both the Right and the Left: 'These [liberal] values were evident in the 20th century fact that (...) the United States not only lacked a viable socialist party, but also has never developed a British or European-style Conservative or Tory party.' See Seymour Martin Lipset, *American Exceptionalism: A Double-Edged Sword*, New York: W.W. Norton, 1996, pp. 31-32.

Pool and other gurus attempted to prove that the advent of the Net would paradoxically involve a return to the economic liberalism of the past.¹⁵ This retro-utopia echoed the predictions of Isaac Asimov, Robert Heinlein and other macho sci-fi novelists whose future worlds were always filled with space traders, superslick salesmen, genius scientists, pirate captains and other rugged individualists.¹⁶ The path of technological progress didn't always lead to ecotopia – it could instead lead back to the America of the Founding Fathers.

ELECTRONIC AGORA OR ELECTRONIC MARKETPLACE?

The ambiguity of the Californian Ideology is most pronounced in its contradictory visions of the digital future. The development of hypermedia is a key component of the next stage of capitalism. As Shoshana Zuboff points out, the introduction of media, computing and telecommunications technologies into the factory and the office is the culmination of a long process of separation of the workforce from direct involvement in production.¹⁷ If only for competitive reasons, all major industrial economies will eventually be forced to wire up their populations to obtain the productivity gains of digital working. What is unknown is the social and cultural impact of allowing people to produce and exchange almost unlimited quantities of information on a global scale. Above all, will the advent of hypermedia will realise the utopias of either the New Left or the New Right? As a hybrid faith, the Californian Ideology happily answers this conundrum by believing in both visions at the same time – and by not criticising either of them.

On the one hand, the anti-corporate purity of the New Left has been preserved by the advocates of the virtual community. According to their guru, Howard Rheingold, the values of the counter-culture baby boomers are shaping the development of new information technologies. As a consequence, community activists will be able to use new media to replace corporate capitalism and big government with a hi-tech gift economy. Already bulletin board systems, Net real-time conferences and chat facilities rely on the voluntary exchange of information and knowledge between their participants. In Rheingold's view, the members of the virtual class are still in the forefront of the struggle for social liberation. Despite the frenzied commercial and political involvement in building the information superhighway, the electronic agora will inevitably triumph over its corporate and bureaucratic enemies.¹⁸

15 | For McLuhan's success on the corporate junket circuit, see Tom Wolfe, 'What if He is Right?' in *The Pump House Gang*, London: Bantam Books, 1968, pp. 107-133. For the use of his ideas by more conventional thinkers, see Brzezinski, *Between Two Ages*; Bell, *The Coming of the Post-Industrial Society*; Toffler, *The Third Wave*; and Sola Pool, *Technologies of Freedom*.

16 | Heroic males are common throughout classic sci-fi novels, see D.D. Harriman in Robert Heinlein, *The Man Who Sold the Moon*, New York: Signet, 1950; or the leading characters in Isaac Asimov, *The Foundation Trilogy*, New York: Gnome Press, 1953; *I, Robot*, London: Panther, 1968; and *The Rest of the Robots*, London: Panther, 1968. Hagbard Celine – a more psychedelic version of this male archetype – is the central character in Robert Shea and Robert Anton Wilson, *The Illuminati Trilogy*, New York: Dell, 1975. In the time chart of 'future history' at the front of Robert Heinlein's novel, it predicts that, after a period of social crisis caused by rapid technological advance, stability would be restored in the 1980s and 1990s through 'an opening of new frontiers and a return to nineteenth-century economy'! Heinlein, *The Man Who Sold the Moon*, pp. 8-9.

17 | See Shoshana Zuboff, *In the Age of the Smart Machine: The Future of Work and Power*, New York: Heinemann, 1988. Of course, this analysis is derived from Karl Marx, *Grundrisse*, London: Penguin, 1973; and *Capital: A Critique of Political Economy, Volume 1: The Process of the Production of Capital*, London: Penguin, 1976.

18 | See Howard Rheingold, *The Virtual Community: Finding Connection in a Computerised World*, London: Secker & Warburg, 1994; and his personal website, <http://rheingold.com/>.

On the other hand, other West Coast ideologues have embraced the laissez-faire ideology of their erstwhile conservative enemy. For example, *Wired* – the monthly bible of the virtual class – has uncritically reproduced the views of Newt Gingrich, the extreme-right Republican leader of the House of Representatives, and the Tofflers, who are his close advisors.¹⁹ Ignoring their policies for welfare cutbacks, the magazine is instead mesmerised by their enthusiasm for the libertarian possibilities offered by new information technologies. However, although they borrow McLuhan's technological determinism, Gingrich and the Tofflers aren't advocates of the electronic agora. On the contrary, they claim that the convergence of the media, computing and telecommunications will produce an *electronic marketplace*: 'In cyberspace (...) market after market is being transformed by technological progress from a "natural monopoly" to one in which competition is the rule.'²⁰

In this version of the Californian Ideology, each member of the virtual class is promised the opportunity to become a successful hi-tech entrepreneur. Information technologies, so the argument goes, empower the individual, enhance personal freedom, and radically reduce the power of the nation-state. Existing social, political and legal power structures will wither away to be replaced by unfettered interactions between autonomous individuals and their software. These restyled McLuhanists vigorously argue that big government should stay off the backs of resourceful entrepreneurs who are the only people cool and courageous enough to take risks. In place of counter-productive regulations, visionary engineers are inventing the tools needed to create a free market within cyberspace, such as encryption, digital money and verification procedures. Indeed, attempts to interfere with the emergent properties of these technological and economic forces, particularly by the government, merely rebound on those who are foolish enough to defy the primary laws of nature. According to the executive editor of *Wired*, the 'invisible hand' of the marketplace and the blind forces of Darwinian evolution are actually one and the same thing.²¹ As in Heinlein's and Asimov's sci-fi novels, the path forwards to the future seems to lead back to the past. The 21st century information age will be the realisation of the 18th century liberal ideals of Thomas Jefferson: '(...) the (...) creation of a new civilisation, founded in the eternal truths of the American Idea.'²²

19 | See the gushing interview with the Tofflers in Peter Schwartz, 'Shock Wave (Anti) Warrior', *Wired* 1:5 (November 1993), pp. 61-65 120-122, <http://archive.wired.com/wired/archive/1.05/toffler.html>; and, for the magazine's characteristic ambiguity over the Speaker of the House's reactionary political programme, see the aptly named interview with Newt Gingrich in Esther Dyson, 'Friend and Foe', *Wired* 3:8 (August 1995), pp. 106-112, 160-162, <http://archive.wired.com/wired/archive/3.08/newt.html>.

20 | Progress and Freedom Foundation, *Cyberspace and the American Dream: A Magna Carta for the Knowledge Age*, p. 5, <http://www.pff.org/issues-pubs/futureinsights/fi1.2magnacarta.html>.

21 | See Kevin Kelly, *Out of Control: The New Biology of Machines*, London: Fourth Estate, 1994. For a critique of this book, see Richard Barbrook, 'The Pinocchio Theory', *Science as Culture*, 5:24.3 (1996), pp. 459-66, <http://www.imaginaryfutures.net/2007/04/08/pinocchio-theory-by-richard-barbrook>.

22 | Progress and Freedom Foundation, *Cyberspace and the American Dream*, p. 13. Toffler and friends also proudly proclaim that: 'America (...) remains the land of individual freedom, and this freedom clearly extends to cyberspace', Progress and Freedom Foundation, *Cyberspace and the American Dream*, p. 6. Also see Kapor, 'Where is the Digital Highway Really Heading?'

THE MYTH OF THE FREE MARKET

Following the victory of Gingrich's party in the 1994 legislative elections, this right-wing version of the Californian Ideology is now in the ascendant. Yet, the sacred tenets of economic liberalism are contradicted by the actual history of hypermedia. For instance, the iconic technologies of the computer and the Net could only have been invented with the aid of massive state subsidies and the enthusiastic involvement of amateurs. Private enterprise has played an important role, but only as one part of a mixed economy.

For example, the first computer – the Difference Engine – was designed and built by private companies, but its development was only made possible through a British Government grant of £17,470, which was a small fortune in 1834.²³ From Colossus to EDVAC, from flight simulators to virtual reality, the development of computing has depended at key moments on public research handouts or fat contracts with public agencies. The IBM corporation only built the first programmable digital computer after it was requested to do so by the US Defence Department during the Korean War. Ever since, the development of successive generations of computers has been directly or indirectly subsidised by the American military budget.²⁴ As well as state aid, the evolution of computing has also depended upon the involvement of DIY culture.²⁵ For instance, the personal computer was invented by amateur techies who wanted to construct their own cheap machines. The existence of a gift economy amongst hobbyists was a necessary precondition for the subsequent success of products made by Apple and Microsoft. Even now, shareware programs still play a vital role in advancing software design.

The history of the internet also contradicts the tenets of the neoliberal ideologues. For the first twenty years of its existence, the Net's development was almost completely dependent on the much reviled American federal government. Whether via the US military or through the universities, large amounts of tax payers' dollars went into building its infrastructure and subsidising the cost of using its services. At the same time, many of the key Net programs and applications were invented either by hobbyists or by professionals working in their spare-time. For instance, the MUD program which allows real-time Net conferencing was invented by a group of students who wanted to play fantasy games over a computer network.²⁶

23 | See Simon Schaffer, 'Babbage's Intelligence: Calculating Engines and the Factory System', <http://www.imaginaryfutures.net/2007/04/16/babbages-intelligence-by-simon-schaffer>.

24 | See Jon Palfreman and Doron Swade, *The Dream Machine: Exploring the Computer Age*, London: BBC, 1991, pp. 32-36. For an account of how a lack of state intervention meant that Nazi Germany lost the opportunity to build the world's first electronic computer. In 1941 the German High Command refused further funding to Konrad Zuse, who had pioneered the use of binary code, stored programs and electronic logic gates.

25 | DIY means Do-It-Yourself – and is used to describe community, hobbyist and amateur initiatives.

26 | See Rheingold, *The Virtual Community*; and <http://rheingold.com/>.

One of the weirdest things about the rightwards drift of the Californian Ideology is that the West Coast itself is a creation of the mixed economy. Government dollars were used to build the irrigation systems, highways, schools, universities and other infrastructural projects which makes the good life possible in California. On top of these public subsidies, the West Coast hi-tech industrial complex has been feasting off the fattest pork barrel in history for decades. The US government has poured billions of tax dollars into buying planes, missiles, electronics and nuclear bombs from Californian companies. For those not blinded by free market dogmas, it was obvious that the Americans have always had state planning: only they call it the defence budget.²⁷ At the same time, key elements of the West Coast's lifestyle come from its long tradition of cultural bohemianism. Although they were later commercialised, community media, New Age spiritualism, gay pride, surfing, health food, recreational drugs, pop music and many other forms of cultural heterodoxy all emerged from the decidedly non-commercial scenes based around university campuses, artists' communities and rural communes. Without its DIY culture, California's myths wouldn't have the global resonance which they have today.²⁸

All of this public funding and community involvement has had an enormously beneficial – albeit unacknowledged and uncoded – effect on the development of Silicon Valley and other hi-tech industries. Capitalist entrepreneurs often have an inflated sense of their own resourcefulness in developing new ideas and give little recognition to the contributions made by either the state, their own labour force or the wider community. All technological progress is cumulative – it depends on the results of a collective historical process and must be counted, at least in part, as a collective achievement. Hence, as in every other industrialised country, American entrepreneurs have inevitably relied on state intervention and DIY initiatives to nurture and develop their industries. When Japanese companies threatened to take over the American microchip market, the libertarian computer capitalists of California had no ideological qualms about joining a state-sponsored cartel organised to fight off the invaders from the East. Until the Net programs allowing community participation within cyberspace could be included, Bill Gates believed that Microsoft had no choice but to delay the launch of the Windows 95 operating system.²⁹ As in other sectors of the modern economy, the question facing the emerging hypermedia industry isn't whether or not it will be organised as a mixed economy, but what sort of mixed economy it will be.

27 | As President Clinton's Labour Secretary puts it: 'Recall that through the post-war era the Pentagon has quietly been in charge of helping American corporations move ahead with technologies like jet engines, airframes, transistors, integrated circuits, new materials, lasers, and optic fibres (...) The Pentagon and the 600 national laboratories which work with it and with the Department of Energy are the closest thing America has to Japan's well-known Ministry of International Trade and Industry.' Reich, *The Work of Nations*, p. 159.

28 | For an account of how these cultural innovations emerged from the early acid scene, see Tom Wolfe, *The Electric Kool-Aid Acid Test*, New York: Bantam Books, 1968. Interestingly, one of the drivers of the famous Merry Pranksters' bus was Stewart Brand, who is now a leading contributor to *Wired*.

29 | Hayes, *Behind the Silicon Curtain*, points out that the American computer industry has already been encouraged by the Pentagon to form cartels against foreign competition. The head of Microsoft admitted that he was late in realising the 'massive structural change' being caused by the Net, see Bill Gates, 'The Bill Gates Column', *The Guardian*, On-Line Section, 20 July 1995, p. 14.

FREEDOM IS SLAVERY

If its holy precepts are refuted by profane history, why have the myths of the free market so influenced the proponents of the Californian Ideology? Living within a contract culture, the digital artisans lead a schizophrenic existence. On the one hand, they cannot challenge the primacy of the marketplace over their lives. On the other hand, they resent attempts by those in authority to encroach on their individual autonomy. By mixing New Left and New Right, the Californian Ideology provides a mystical resolution of the contradictory attitudes held by members of the virtual class. Crucially, anti-statism provides the means to reconcile radical and reactionary ideas about technological progress. While the New Left resents the government for funding the military-industrial complex, the New Right attacks the state for interfering with the spontaneous dissemination of new technologies by market competition. Despite the central role played by public intervention in developing computing and the Net, the Californian Ideologues preach an anti-statist gospel of cybernetic libertarianism: a bizarre mish-mash of hippie anarchism and economic liberalism beefed up with lots of technological determinism. Rather than comprehend really existing capitalism, gurus from both New Left and New Right much prefer to advocate rival versions of a digital Jeffersonian democracy. For instance, Rheingold as a follower of the New Left believes that the electronic agora will allow individuals to exercise the sort of media freedom advocated by the Founding Fathers. Similarly, the New Right claim that the removal of all regulatory curbs on the private enterprise will create media freedom worthy of a Jeffersonian democracy.³⁰

The triumph of this retro-futurism is a result of the failure of renewal in the USA during the late 1960s and early 1970s. Following the confrontation at People's Park, the struggle between the American establishment and the counter-culture entered into a spiral of violent confrontation. While the Vietnamese – at the cost of enormous human suffering – were able to expel the American invaders from their country, the hippies and their allies in the black civil rights movement were eventually crushed by a combination of state repression and cultural co-option.

The Californian Ideology perfectly encapsulates the consequences of this defeat for members of the virtual class. Although they enjoy cultural freedoms won by the hippies, most of them are no longer actively involved in the struggle to build ecotopia. Instead of openly rebelling against the system, these digital artisans now accept that individual freedom can only be achieved by working within the constraints of technological progress and the free market. In many cyberpunk novels, this asocial libertarianism is personified by the central character of the hacker, who is a lone individual fighting for survival within the virtual world of information.³¹

The drift towards the right by the Californian Ideologues is helped by their unquestioning acceptance of the liberal ideal of the self-sufficient individual. In American folklore, the

30 | See Rheingold's <http://rheingold.com/>; and Kapor, 'Where is the Digital Highway Really Heading?' Despite the libertarian instincts of both these writers, their infatuation with the era of the Founding Fathers is shared by the neo-fascist Militia and Patriot movements, see Chip Berlet, *Armed Militias, Right Wing Populism, and Scapegoating*, Somerville: Political Research Associates, 1995.

31 | See the hacker heroes in William Gibson, *Neuromancer*, London: Grafton, 1984; *Count Zero*, London: Grafton, 1986; and *Mona Lisa Overdrive*, London: Grafton, 1989; or in Bruce Sterling, (ed.) *Mirrorshades*, London: Paladin, 1988. A prototype of this sort of anti-hero is Deckard, the existential hunter of replicants in the movie *Bladerunner* (dir. Ridley Scott, 1982).

nation was built out of a wilderness by free-booting individuals – the trappers, cowboys, preachers, and settlers of the frontier. The American revolution itself was fought to protect the freedoms and property of individuals against oppressive laws and unjust taxes imposed by a foreign monarch. For both the New Left and the New Right, the early years of the American republic provide a potent model for their rival versions of individual freedom. Yet there is a profound contradiction at the centre of this primordial American dream: individuals in this period only prospered through the suffering of others. Nowhere is this clearer than in the life of Thomas Jefferson – the chief icon of the Californian Ideology.

Thomas Jefferson was the man who wrote the inspiring call for democracy and liberty in the American Declaration of Independence and – at the same time – owned nearly 200 human beings as slaves. As a politician, he championed the right of American farmers and artisans to determine their own destinies without being subject to the restrictions of feudal Europe. Like other liberals of the period, he thought that political liberties could be protected from authoritarian governments only by the widespread ownership of individual private property. The rights of citizens were derived from this fundamental natural right. In order to encourage self-sufficiency, he proposed that every American should be given at least 50 acres of land to guarantee their economic independence. Yet, while idealising the small farmers and businessmen of the frontier, Jefferson was actually a Virginian plantation-owner living off the labour of his slaves. Although the South's 'peculiar institution' troubled his conscience, he still believed that the natural rights of man included the right to own human beings as private property. In Jeffersonian democracy, freedom for white folks was based upon slavery for black people.³²

FORWARD INTO THE PAST

Despite the eventual emancipation of the slaves and the victories of the civil rights movement, racial segregation still lies at the centre of American politics – especially on the West Coast. In the 1994 election for governor in California, Pete Wilson, the Republican candidate, won through a vicious anti-immigrant campaign. Nationally, the triumph of Gingrich's Republican party in the legislative elections was based on the mobilisation of 'angry white males' against the supposed threat from black welfare scroungers, immigrants from Mexico and other uppity minorities. These politicians have reaped the electoral benefits of the increasing polarisation between the mainly white, affluent suburbanites – most of whom vote – and the largely non-white, poorer inner city dwellers – most of whom don't vote.³³ Although they retain some hippie ideals, many Californian Ideologues have found it impossible to take a clear stand against the divisive policies

32 | Thomas Jefferson believed that people of African descent could not be members of the Lockean social contract which bound together citizens of the American republic. One commentator explains his hypocritical philosophical justification for this racist position: 'The rights of man (...) while theoretically and ideally the birth right of every human being, applied in practice in the United States only to white men: the black slaves were excluded from consideration because, while admittedly human beings, they were also property, and where the rights of man conflicted with the rights of property, property took precedence.' John Miller, *The Wolf by the Ears: Thomas Jefferson and Slavery*, New York: Free Press, 1977, p. 13. Jefferson's opposition to slavery was at best rhetorical. In a letter of 22 April 1820, he disingenuously suggested that the best way to encourage the abolition of slavery would be to legalise the private ownership of human beings in all States of the Union and the frontier territories! He claimed that 'their diffusion over a greater surface would make them individually happier, and proportionally facilitate the accomplishment of their emancipation, by dividing the burden on a greater number of coadjutors [i.e. slave-owners].' Merrill Peterson (ed.), *The Portable Thomas Jefferson*, New York: Viking Press, 1975, p. 568. For a description of life on his slave plantation, also see Paul Wiltach, *Jefferson and Monticello*, London: William Heinemann, 1925.

33 | For California's turn to the Right, see Walker, 'California Rages Against the Dying of the Light'.

of the Republicans. This is because the hi-tech and media industries are a key element of the New Right electoral coalition. In part, both capitalists and well-paid workers fear that the open acknowledgement of public funding of their companies would justify tax rises to pay for desperately needed spending on health care, environmental protection, housing, public transport and education. More importantly, many members of the virtual class want to be seduced by the libertarian rhetoric and technological enthusiasm of the New Right. Working for hi-tech and media companies, they would like to believe that the electronic marketplace can somehow solve America's pressing social and economic problems without any sacrifices on their part. Caught in the contradictions of the Californian Ideology, Gingrich is – as one *Wired* contributor put it – both their 'friend and foe'.³⁴

In the USA, a major redistribution of wealth is urgently needed for the long-term economic well-being of the majority of the population. However, this is against the short-term interests of rich white folks, including many members of the virtual class. Rather than share with their poor black or hispanic neighbours, the yuppies instead retreat into their affluent suburbs, protected by armed guards and secure with their private welfare services.³⁵ The deprived only participate in the information age by providing cheap non-unionised labour for the unhealthy factories of the Silicon Valley chip manufacturers.³⁶ Even the construction of cyberspace could become an integral part of the fragmentation of American society into antagonistic, racially-determined classes. Already 'red-lined' by profit-hungry telephone companies, the inhabitants of poor inner city areas are now threatened with exclusion from the new online services through lack of money.³⁷ In contrast, members of the virtual class and other professionals can play at being cyberpunks within hyper-reality without having to meet any of their impoverished neighbours. Alongside the ever-widening social divisions, another apartheid is being created between the 'information-rich' and the 'information-poor'. In this hi-tech Jeffersonian democracy, the relationship between masters and slaves endures in a new form.

CYBORG MASTERS AND ROBOT SLAVES

The fear of the rebellious underclass has now corrupted the most fundamental tenet of the Californian Ideology: its belief in the emancipatory potentiality of the new information technologies. While the proponents of the electronic agora and the electronic marketplace promise to liberate individuals from the hierarchies of the state and private monopolies, the social polarisation of American society is bringing forth a more oppressive vision of the digital future. The technologies of freedom are turning into the machines of dominance.

34 | See Dyson, 'Friend and Foe'. Esther Dyson collaborated with the Tofflers in the writing of the Progress and Freedom Foundation's *Cyberspace and the American Dream* – a futurist manifesto designed to win votes for Gingrich from members of the virtual class.

35 | For the rise of the fortified suburbs, see Davis, *City of Quartz*; and *Urban Control: the Ecology of Fear*, New Jersey: Open Magazine, 1992. These 'gated suburbs' provide the inspiration for the alienated background of many cyberpunk sci-fi novels, such as Neal Stephenson, *Snow Crash*, New York: Roc, 1992.

36 | See Hayes, *Behind the Silicon Curtain*.

37 | See Reginald Stuart, 'High-Tech Redlining: Are Afro-Americans Being Frozen out of the New Communications Network', *Utne Reader* 68 (March-April 1995), p. 73.

At his estate at Monticello, Jefferson invented many clever gadgets for his house, such as a 'dumb waiter' to deliver food from the kitchen into the dining room. By mediating his contacts with his slaves through technology, this revolutionary individualist spared himself from facing the reality of his dependence upon the forced labour of his fellow human beings.³⁸ In the late-20th century, technology is once again being used to reinforce the difference between the masters and the slaves.

According to some visionaries, the search for the perfection of mind, body and spirit will inevitably lead to the emergence of the 'post-human': a bio-technological manifestation of the social privileges of the virtual class. While the hippies saw self-development as part of social liberation, the hi-tech artisans of contemporary California are more likely to seek individual self-fulfilment through therapy, spiritualism, exercise or other narcissistic pursuits. Their desire to escape into the gated suburb of the hyper-real is only one aspect of this deep self-obsession.³⁹ Emboldened by supposed advances in Artificial Intelligence and medical science, the Extropian cult fantasises of abandoning the 'wetware' of the human state altogether to become living machines.⁴⁰ Just like Virek and the Tessier-Ashpools in William Gibson's *Sprawl* novels, they believe that social privilege will eventually endow them with immortality.⁴¹ Instead of predicting the emancipation of humanity, this form of technological determinism can only envisage a deepening of social segregation.

Despite these fantasies, white people in California remain dependent on their darker-skinned fellow humans to work in their factories, pick their crops, look after their children and tend their gardens. Following the recent riots in Los Angeles, they increasingly fear that this underclass will someday demand its liberation. If human slaves are ultimately unreliable, then mechanical ones will have to be invented. The search for the holy grail of Artificial Intelligence reveals this desire for the Golem – a strong and loyal slave whose skin is the colour of the earth and whose innards are made of sand. As in Asimov's *Robot* novels, the techno-utopians imagine that it is possible to obtain slave-like labour from inanimate machines.⁴² Yet, although technology can store or amplify labour, it can never remove the necessity for humans to invent, build and maintain these machines in the first place. Slave labour cannot be obtained without somebody being enslaved.

Across the world, the Californian Ideology has been embraced as an optimistic and emancipatory form of technological determinism. Yet, this utopian fantasy of the West Coast depends upon its blindness towards – and dependence on – the social and racial polarisation of the society from which it was born. Despite its radical rhetoric, the Californian Ideology is ultimately pessimistic about fundamental social change. Unlike the hippies, its advocates are not struggling to build ecotopia or even to help revive the New Deal. Instead, the social liberalism of New Left and the economic liberalism of New Right have converged into an ambiguous dream of a hi-tech Jeffersonian democracy. Interpreted generously, this retro-futurism could be a vision of a cybernetic frontier where digital

38 | See Wiltach, *Jefferson and Monticello*.

39 | See Hayes, *Behind the Silicon Curtain*.

40 | For an exposition of their futurist programme, see The Extropians, *F.A.Q.*, http://www.ultim8team.com/modules/future/extropy_faq.php.

41 | See Gibson, *Neuromancer*, *Count Zero*, and *Mona Lisa Overdrive*.

42 | See Asimov, *I, Robot*, and *The Rest of the Robots*.

artisans discover their individual self-fulfilment in either the electronic agora or the electronic marketplace. However, as the zeitgeist of the virtual class, the Californian Ideology is at the same time an exclusive faith. If only some people have access to the new information technologies, Jeffersonian democracy can become a hi-tech version of the plantation economy of the Old South. Reflecting its deep ambiguity, the Californian Ideology's technological determinism is not simply optimistic and emancipatory. It is simultaneously a deeply pessimistic and repressive vision of the future.

THERE ARE ALTERNATIVES

Despite its deep contradictions, people across the world still believe that the Californian Ideology expresses the only way forward to the future. With the increasing globalisation of the world economy, many members of the virtual class in Europe and Asia feel more affinity with their Californian peers than other workers within their own country. Yet, in reality, debate has never been more possible or more necessary. The Californian Ideology was developed by a group of people living within one specific country with a particular mix of socio-economic and technological choices. Its eclectic and contradictory blend of conservative economics and hippie radicalism reflects the history of the West Coast – and not the inevitable future of the rest of the world. For instance, the anti-statist assumptions of the Californian Ideologues are rather parochial. In Singapore, the government is not only organising the construction of a fibre-optic network, but also trying to control the ideological suitability of the information distributed over it. Given the much faster growth rates of the Asian 'tigers', the digital future will not necessarily first arrive in California.⁴³

Despite the neoliberal recommendations of the Bangemann Report, most European authorities are also determined to be closely involved within the development of new information technologies. Minitel – the first successful online network in the world – was the deliberate creation of the French state. Responding to an official report on the potential impact of hypermedia, the government decided to pour resources into developing 'cutting edge' technologies. In 1981, France Telecom launched the Minitel system which provided a mix of text-based information and communications facilities. As a monopoly, this nationalised telephone company was able to build up a critical mass of users for its pioneering online system by giving away free terminals to anyone willing to forgo paper telephone directories. Once the market had been created, commercial and community providers were then able to find enough customers or participants to thrive within the system. Ever since, millions of French people from all social backgrounds have happily booked tickets, chatted each other up and politically organised online without realising they were breaking the libertarian precepts of the Californian Ideology.⁴⁴

43 | See William Gibson and Sandy Sandfort, 'Disneyland with the Death Penalty', *Wired* 1:4 (September/October 1993), pp. 51-55 and 114-115, <http://archive.wired.com/wired/archive/1.04/gibson.html>. Since these articles are an attack on Singapore, it is ironic that the real Disneyland is in California, whose repressive penal code includes the death penalty!

44 | For the report which led to the creation of Minitel, see Nora and Minc, *The Computerisation of Society*. An account of the early years of Minitel can be found in Michel Marchand, *The Minitel Saga: A French Success Story*, Paris: Larousse, 1988.

Far from demonising the state, the overwhelming majority of the French population believe that more public intervention is needed for an efficient and healthy society.⁴⁵ In the recent presidential elections, almost every candidate had to advocate – at least rhetorically – greater state intervention to end social exclusion of the unemployed and homeless. Unlike its American equivalent, the French revolution went beyond economic liberalism to popular democracy. Following the victory of the Jacobins over their liberal opponents in 1792, the democratic republic in France became the embodiment of the ‘General Will’. As such, the state was believed to defend the interests of all citizens, rather than just to protect the rights of individual property-owners. The discourse of French politics allows for collective action by the state to mitigate – or even remove – problems encountered by society. While the Californian Ideologues try to ignore the taxpayers’ dollars subsidising the development of hypermedia, the French government can openly intervene in this sector of the economy.⁴⁶

Although its technology is now increasingly dated, the history of Minitel clearly refutes the anti-statist prejudices of the Californian Ideologues – and of the Bangemann committee. The digital future will be a hybrid of state intervention, capitalist entrepreneurship and DIY culture. Crucially, if the state can foster the development of hypermedia, conscious action could also be taken to prevent the emergence of the social apartheid between the ‘information rich’ and the ‘information poor’. By not leaving everything up to the vagaries of market forces, the EU and its member states could ensure that every citizen has the opportunity to be connected to a broadband fibre-optic network at the lowest possible price.

In the first instance, this would be a much needed job creation scheme for semi-skilled labour in a period of mass unemployment. As Keynesian employment measure, nothing beats paying people to dig holes in the road and fill them in again.⁴⁷ Even more importantly, the construction of a fibre-optic network into homes and businesses could give everyone access to new online services and create a large vibrant community of shared expertise. The long-term gains to the economy and to society from the building of the information superhighway would be immeasurable. It would allow industry to work more efficiently and market new products. It would ensure that education and information services were available to all. No doubt this broadband system will create a mass market for private companies to sell existing information commodities – films, TV programmes, music and books – across the Net. At the same time, once people can distribute as well as receive hypermedia, a flourishing of community media and special interest groups will quickly emerge. For all this to happen, collective intervention will be needed to ensure that all citizens are included within the digital future.

45 | According to a poll carried out during the 1995 presidential elections, 67% of the French population supported the proposition that ‘the state must intervene more in the economic life of our country’, see *Le Monde*, ‘Une Majorité de français souhaitent un vrai “chef” pour un vrai “état”’, *Le Monde*, 11 April 1995, p. 6.

46 | For the influence of Jacobinism on French conceptions of democratic rights, see Barbrook, *Media Freedom*. Some French economists claim that the very different history of Europe has created a specific – and socially superior – model of capitalism, see Michel Albert, *Capitalism v. Capitalism*, New York: Four Wall Eight Windows, 1993; and Philippe Delmas, *Le Maître des horloges*, Paris: Éditions Odile Jacob, 1991.

47 | As John Maynard Keynes himself said: “To dig holes in the ground”, paid for out of savings, will increase, not only employment, but the real national dividend of useful goods and services.’ John Maynard Keynes, *The General Theory of Employment, Interest and Money*, London: Macmillan, 1964, p. 220.

THE REBIRTH OF THE MODERN

Even if it is not in circumstances of their own choosing, it is now necessary for Europeans to assert their own vision of the future. There are varying ways forward towards the information society – and some paths are more desirable than others. In order to make an informed choice, European digital artisans need to develop a more coherent analysis of the impact of hypermedia than can be found within the ambiguities of the Californian Ideology. The members of the European virtual class must create their own distinctive self-identity.

This alternative understanding of the future starts from a rejection of any form of social apartheid – both inside and outside cyberspace. Any programme for developing hypermedia must ensure that the whole population can have access to the new online services. In place of New Left or New Right anarchism, a European strategy for developing the new information technologies must openly acknowledge the inevitability of some form of mixed economy – the creative and antagonistic mix of state, corporate and DIY initiatives. The indeterminacy of the digital future is a result of the ubiquity of this mixed economy within the modern world. No one knows exactly what the relative strengths of each component will be, but collective action can ensure that no social group is deliberately excluded from cyberspace.

A European strategy for the information age must also celebrate the creative powers of the digital artisans. Because their labour cannot be deskilled or mechanised, members of the virtual class exercise great control over their own work. Rather than succumbing to the fatalism of the Californian Ideology, we should embrace the Promethean possibilities of new media. Within the limitations of the mixed economy, digital artisans are able to invent something completely new – something which has not been predicted in any sci-fi novel. These innovative forms of knowledge and communications will sample the achievements of others, including some aspects of the Californian Ideology. It is now impossible for any serious movement for social emancipation not to incorporate feminism, drug culture, lesbian & gay liberation, ethnic identity and other issues pioneered by West Coast radicals. Similarly, any attempt to develop hypermedia within Europe will need some of the entrepreneurial zeal and can-do attitude championed by the Californian New Right. Yet, at the same time, the development of hypermedia means innovation, creativity and invention. There are no precedents for all aspects of the digital future.

As pioneers of the new, the digital artisans need to reconnect themselves with the theory and practice of productive art. They are not just employees of others – or even would-be cybernetic entrepreneurs. They are also artist-engineers – designers of the next stage of modernity. Drawing on the experience of the Saint-Simonists and Constructivists, the digital artisans can create a new machine aesthetic for the information age.⁴⁸ For instance, musicians have used computers to develop purely digital forms of music, such as jungle and techno.⁴⁹ Interactive artists have explored the potentiality of CD-ROM technologies,

48 | See Keith Taylor (ed.), *Henri Saint-Simon 1760-1825: Selected Writings on Science, Industry and Social Organisation*, London: Croom Helm, 1975; and John E. Bowlt (ed.), *Russian Art of the Avant-Garde: Theory and Criticism*, London: Thames & Hudson, 1976.

49 | As Goldie, a London DJ, puts it: 'We have to take it forwards and take the drums 'n' bass and push it and push it and push it. I remember when we were saying that it couldn't be pushed anymore. It's been pushed tenfold since then...' Tony Marcus, 'The War is Over', *Mixmag* (August 1995), p. 46.

as shown by the work of Antirom. The Hypermedia Research Centre has constructed an experimental virtual social space called *J's Joint*.⁵⁰ In each instance, artist-engineers are trying to push beyond the limitations of both the technologies and their own creativity. Above all, these new forms of expression and communications are connected with the wider culture. The developers of hypermedia must reassert the possibility of rational and conscious control over the shape of the digital future. Unlike the elitism of the Californian Ideology, the European artist-engineers must construct a cyberspace which is inclusive and universal. Now is the time for the rebirth of the Modern.

*Present circumstances favour making luxury national. Luxury will become useful and moral when it is enjoyed by the whole nation. The honour and advantage of employing directly, in political arrangements, the progress of exact sciences and the fine arts (...) have been reserved for our century.*⁵¹

50 | For information on Antirom and *J's Joint*, see the Antirom and Hypermedia Research Centre's websites: <http://www.antirom.com/>, <http://www.hrc.wmin.ac.uk/>.

51 | Henri de Saint-Simon, 'Sketch of the New Political System', in Taylor, *Henri Saint-Simon 1760-1825*, p. 203.

Cyber-Communism: How the Americans Are Superseding Capitalism in Cyberspace

RICHARD BARBROOK

is the impact of the (...) information revolution on capitalism not the ultimate exemplification of (...) Marx's thesis that: "at a certain stage of their development, the material productive forces come into conflict with the existing relations of production (...)?" (...) does the prospect of the (...) "global village" not signal the end of market relations (...) at least in the sphere of digitalised information?

Slavoj Žižek, *The Spectre is Still Roaming Around*

GHOSTS IN THE MACHINE

A spectre is haunting the Net: the spectre of communism. Reflecting the extravagance of the new media, this spectre takes two distinct forms: the theoretical appropriation of Stalinist communism and the everyday practice of cyber-communism. Whatever their professed political beliefs, all users of the Net enthusiastically participate in this left-wing revival. Whether in theory or practice, each of them desires the digital transcendence of capitalism. Yet, at the same time, even the most dedicated leftist can no longer truly believe in communism. After the fall of the Berlin Wall and the implosion of the Soviet Union, this ideology is completely discredited. The promises of social emancipation turned into the horrors of totalitarianism. The dreams of industrial modernity culminated in economic stagnation. Far from representing the future, communism seems like a relic from the past.

Above all, the Soviet Union was incapable of leading the information revolution. The political and economic structures of Stalinist communism were far too inflexible and secretive for the emergence of the new technological paradigm. How could the totalitarian party allow everyone to produce media without its supervision? How could the central planning agency permit producers to form collaborative networks without its authorisation? A much more open and spontaneous society was needed to develop the Net. Excited by the libertarian potential of further digital convergence, the proponents of almost every radical ideology have recently updated their positions. Yet, among the cyber-feminists, communication guerrillas, techno-nomads and digital anarchists, there is no new version of the once dominant current of Stalinist communism. Even its former acolytes admit that the Soviet Union exemplified the worst failures of Fordism: authoritarianism, conformity and environmental degradation.⁵²

The ideologues of American neoliberalism have seized this opportunity to lay claim to the future. For almost thirty years, they have been predicting that new technologies were about to create a utopian civilisation: the information society. For instance, the Tofflers

52 | See Stuart Hall and Martin Jacques (eds), *New Times: The Changing Face of Politics in the 1990s*, London: Lawrence & Wishart, 1989.

have long been convinced that the convergence of computing, telecommunications and the media would free individuals from the clutches of both big business and big government.⁵³ Similarly, Ithiel de Sola Pool prophesied that interactive television would allow everyone to make their own media and participate in political decision-making.⁵⁴ Despite their radical rhetoric, these conservative pundits were primarily interested in proving that information technologies would force the privatisation and deregulation of all economic activity. Their post-Fordist future was the return to the liberal past. When the Net became popular, this free market fundamentalism was quickly adapted to fit the new situation. Most famously, *Wired* argues that the 'New Paradigm' of unregulated competition between cyber-entrepreneurs is extending individual freedom and encouraging technological innovation in the USA.⁵⁵ As the Net spreads across the world, the material and spiritual values of American neoliberalism will eventually be imposed on the whole of humanity. As Louis Rossetto – the founding editor of *Wired* – explains: 'This new world [of the Net] is characterised by a new global economy that is inherently anti-hierarchical and decentralist, and that disrespects national boundaries or the control of politicians and bureaucrats (...) and by a global, networked consciousness (...) that is turning (...) bankrupt electoral politics (...) into a dead end.'⁵⁶

THE CULT OF THE DIGERATI

The narcissism of the Californian Ideology reflects the self-confidence of a triumphant nation. With the Cold War won, the USA no longer has any serious military or ideological competitors. Even its economic rivals in the EU and East Asia have been surpassed. According to most commentators, the renaissance of American hegemony is founded upon its lead in new information technologies. No country can match the 'smart weapons' of the US military. Few companies can compete against the 'smart machines' used by American corporations. Above all, the USA dominates the cutting-edge of technological innovation: the Net. Realising the American dream, a lucky few are making huge fortunes from floating their hi-tech companies on Wall Street.⁵⁷ Mesmerised by the commercial potential of e-commerce, many others are speculating their savings on new media share issues.

*Internet stocks (...) may be the hottest things since the Dutch tulip-bulb craze in the 1600s.*⁵⁸

Despite all the wealth being generated by technological innovation, the division between rich and poor continues to widen in the USA.⁵⁹ In contrast with the European and East Asian forms of capitalism, American neoliberalism can successfully combine economic

53 | See Toffler, *The Third Wave*.

54 | See Sola Pool, *Technologies of Freedom*.

55 | See *The Californian Ideology* above.

56 | Louis Rossetto in David Hudson, 'There's no Government like no Government (Interview with Louis Rossetto)', *San Francisco Bay Guardian*, 6 November 1996, p. 30.

57 | See John Greenwald, 'Heroes of a Wild and Crazy Stock Ride', *Time*, 3 August 1998, pp. 46-47.

58 | Daniel Kadlec, 'Internet Mania', *Time*, 18 January 1999, p. 1, <http://content.time.com/time/magazine/article/0,9171,990028,00.html>.

59 | See Larry Elliott, 'Rise and Rise of the Super-Rich', *The Guardian*, G2 section, 14 July 1999, pp. 2-3.

progress with social immobility. Ever since the 1789 French revolution, conservatives have searched for this union of opposites: reactionary modernism.⁶⁰ Although necessary for the survival of capitalism, the social implications of economic growth have always frightened the Right. Over the long-run, continual industrialisation slowly erodes class privileges. As their incomes rise, ordinary people can increasingly determine the political concerns and cultural attitudes of society. As a result, successive generations of conservatives have faced the dilemma of reconciling economic expansion with social stasis. Despite deep ideological differences, they have always proposed the same solution: the formation of a hi-tech aristocracy.⁶¹

The earliest versions of this reactionary fantasy emphasised the hierarchical division of labour under Fordism. Although many skills were destroyed by the industrial system, new specialisms were simultaneously created. Within Fordism, engineers, bureaucrats, teachers and other professionals formed an intermediate layer between management and the shopfloor.⁶² Unlike most employees, this section of the working class received high incomes and escaped subordination to the assembly-line. Fearful of losing their limited privileges, some professionals became enthusiastic supporters of reactionary modernism. Instead of fighting for social equality, they dreamt of founding a new aristocracy: the technocracy.

*Reason, science, and technology are not inert processes by which men [and women] discover, communicate, and apply facts disinterestedly and without passion, but means by which, through systems, some men [and women] organise and control the lives of other men [and women] according to their conceptions as to what is preferable.*⁶³

During the boom years of Fordism, the new ruling class was supposedly being formed by the managers and other professionals from large corporations and government departments.⁶⁴ However, when the economy went into crisis in the early-1970s, right-wing intellectuals were forced to look for supporters amongst other sections of the intermediate layer. Inspired by Marshall McLuhan, they soon discovered the growing number of people developing new information technologies.⁶⁵ For almost three decades, conservative gurus have been predicting that the new ruling class would be composed of venture capitalists, innovative scientists, hacker geniuses, media stars and neoliberal ideologues: the *digerati*.⁶⁶ Seeking to popularise their prophecies, they always claim that every hi-tech professional has the opportunity to become a member of this new aristocracy. Within the convergent industries, skilled workers are essential for the development of original

60 | See Jeffrey Herf, *Reactionary Modernism: Technology, Culture and Politics in Weimar and in the Third Reich*, Cambridge: Cambridge University Press, 1984.

61 | See Friedrich Nietzsche, *Thus Spoke Zarathustra*, London: Penguin, 1961; and José Ortega y Gasset, *The Revolt of the Masses*, London: George Allen & Unwin, 1932.

62 | See Tony Elger, 'Valorisation and "Deskilling": A Critique of Braverman', *Capital & Class* 7 (Spring 1979), pp. 58-99.

63 | Jerry Israel (ed.), *Building the Organisational Society: Essays on Associational Activities in Modern America*, New York: Free Press, 1972, pp. 2-3.

64 | See James Burnham, *The Managerial Revolution*, London: Penguin, 1945.

65 | See McLuhan, *Understanding Media*.

66 | See Toffler, *The Third Wave*; Kelly, *Out of Control*; and Bell, *The Coming of Post-Industrial Society*.

products, such as software programs and website designs. In common with many of their peers, most digital artisans suffer from the insecurity of contract employment. However, they also are better paid and have greater autonomy over their work. As in the past, this ambiguous social position can encourage gullibility towards reactionary modernism. Chasing the American dream, many hi-tech workers hope to make millions from founding their own company. Instead of identifying with their fellow employees, they aspire to join the digerati: the new technocracy of the Net.⁶⁷

Unlike in earlier forms of conservatism, this desire for domination over others is no longer openly expressed in the Californian Ideology. Instead, its gurus claim that the rule of the digerati will benefit everyone. For they are the inventors of sophisticated machines and the improvers of production methods. They are pioneering the hi-tech services which will eventually be enjoyed by the whole population. Over time, the digerati will transform the restrictions of Fordism into the freedoms of the information society. The compromises of representative democracy will be replaced by personal participation within the 'electronic town hall'. The limits on personal creativity in the existing media will be overcome by interactive forms of aesthetic expression. Even the physical confines of the body will be transcended within cyberspace. In the Californian Ideology, the autocracy of the few in the short-term is necessary for the liberation of the many in the long-term.⁶⁸

*Not haves and have-nots – [but have-nows and] have-laters.*⁶⁹

THE LIBERATING MINORITY

What is now expected from the digerati in the age of the Net was once predicted about other heroic elites in the times of steel and electricity. Ever since the late-19th century, science fiction novelists have fantasised about a small group of scientists and philosophers inventing the technological fix for the problems of society.⁷⁰ Among political activists, this faith in the leading role of the enlightened minority has an even older pedigree. At the peak of the French revolution in the 1790s, the Jacobins decided that the democratic republic could only be created by a revolutionary dictatorship. Although their regime was fighting for political and cultural freedom, substantial sections of the population violently resisted the modernisation of French society. According to the Jacobins, the minds of these traditionalists had been corrupted by the aristocracy and the clergy. The revolutionary dictatorship was needed not only to crush armed rebellions, but also to popularise the principles of republican democracy. For only once everyone had been educated could all citizens participate in political decision-making. The tyranny of the minority in the short-term would lead to democracy for the majority in the long-term.⁷¹

67 | See Kroker and Weinstein, *Data Trash*.

68 | See Toffler, *The Third Wave*; Kelly, *Out of Control*; Hudson, 'There's no Government like no Government'; and Esther Dyson, *Release 2.0: A Design for Living in the Digital Age*, London: Viking, 1997.

69 | Louis Rossetto, '19th Century Nostrums Are not Solutions to 21st Century Problems: A Trans-Atlantic Jet Streamer on European Ideology and Political Eternal Returns', *Mute* 4 (Winter/Spring 1996), p. 17, <http://www.metamute.org/editorial/articles/to-mutoids-re-californian-ideology>.

70 | See Edward Bellamy, *Looking Backward*, London: Penguin, 1982; and H.G. Wells, *A Modern Utopia*, Thirsk: House of Stratus, 2002.

71 | See Crane Brinton, *The Jacobins: An Essay in the New History*, New York: Russell and Russell, 1961; and Barbrook, *Media Freedom*, pp. 19-37.

Although the Jacobins only held power for a few years, their example has inspired revolutionary movements for generations. In many countries, radical groups have faced the identical problem of transforming traditional communities into industrial societies. Whatever their ideological differences, every revolutionary minority had the same mission: leading the masses towards modernity. By the mid-19th century, the European Left had realised that this goal of political and cultural emancipation could only be achieved through economic progress. Henri de Saint-Simon had explained that the power of the aristocracy and clergy was founded upon agriculture. If the economy could be modernised, wealth and power would inevitably transfer to members of the new industrial professions: entrepreneurs, workers, politicians, artists and scientists. Like the Jacobins, Saint-Simon argued that this new elite shouldn't just look after its own interests. For these modernisers also had the historical task of liberating their less-fortunate fellow citizens from poverty and ignorance. By creating economic abundance, the enlightened minority would enable everyone to enjoy happy and productive lives.

*Politics should now be nothing more than the science of providing people with as many material goods and as much moral satisfaction as possible.*⁷²

Inspired by Saint-Simon, early socialists believed that economic growth would inevitably lead to political and cultural emancipation. Under capitalism, there had to be continual improvements in the methods and machinery used to make goods and services: *the forces of production*. Over time, these advances were slowly undermining the private ownership of business: *the relations of production*. According to this version of Saint-Simon, the increasing interdependence of the modern economy would eventually force the adoption of more collective forms of social organisation. Whatever their current difficulties, the parliamentary parties of the European Left were confident of eventual victory. Sooner or later, the development of the forces of production would democratise the relations of production.⁷³

By the mid-20th century, this Marxist remix of Saint-Simon had also been appropriated by apologists of totalitarianism. Even before seizing power, V.I. Lenin had argued that revolutionary intellectuals should form a prototype of the Jacobin dictatorship: the vanguard party.⁷⁴ Under the old order, the minds of most people were filled with incorrect ideologies from right-wing newspapers, churches and other cultural institutions. The enlightened minority had the historical duty of leading these ignorant masses towards the utopian future. After the 1917 Russian revolution, Lenin and his followers were able to create a modernising dictatorship. Like its predecessor in 1790s France, this new regime was committed to fighting against reactionary forces and to educating the whole population.⁷⁵ In addition, the revolutionary dictatorship had acquired an even more important task: the industrialisation of the Russian economy. Appropriating the analysis of Saint-Simon and

72 | Henri de Saint-Simon and Léon Halévy, 'The Artist, the Scientist and the Industrial', in Keith Taylor (ed.), *Henri Saint-Simon 1760-1825: Selected Writings on Science, Industry and Social Organisation*, London: Croom Helm, 1975, p. 280.

73 | See Karl Marx, *A Contribution to the Critique of Political Economy*, Moscow: Progress, 1970, pp. 20-21; and Friedrich Engels *Socialism: Utopian and Scientific*, Beijing: Foreign Languages Press, 1975 pp. 74-101.

74 | See V.I. Lenin, *What Is To Be Done? Burning Questions of Our Movement*, Beijing: Foreign Languages Press, 1975.

75 | See V.I. Lenin, *The Proletarian Revolution and the Renegade Kautsky*, Beijing: Foreign Languages Press, 1975.

his Marxist interpreters, Lenin claimed that economic modernisation would eventually lead to political and cultural liberation. By imposing authoritarian rule in the short-term, the Russian revolutionaries hoped to construct participatory democracy in the long-run.⁷⁶

This determination to modernise the economy soon led to the removal of all political and cultural freedoms. The promise of eventual emancipation justified the murder and imprisonment of millions. The creativity of artists was reduced to making propaganda for the totalitarian party. The modernising dictatorship had even lost interest in improving the living conditions of the masses.⁷⁷ Instead, the Soviet leadership became obsessed with the introduction of new technologies: the mechanical proof of increasing productive forces. By the early-1930s, Josef Stalin – the tyrannical successor of Lenin – was measuring progress towards the utopian future by rises in the output of industrial goods: steel, cars, tractors and machine-tools.⁷⁸ Economic development had become an end in itself.

*The results of the Five-Year Plan [of industrialisation] have shown that the capitalist system (...) has become obsolete and must give way to another, higher, Soviet, socialist system (...).*⁷⁹

Back in the 19th century, there had been no clear definition of communism. While Mikhail Bakunin had found its antecedents within peasant communities, Karl Marx believed that the new system was prefigured by industrial co-operatives.⁸⁰ But, after the Soviet Union's victory over Nazi Germany in 1945, there could no longer be any doubt about the correct interpretation of communism. Across the world, almost every revolutionary movement embraced some variant of the Stalinist creed. The radical intellectuals must form a vanguard party to overthrow the existing order. Once in power, this revolutionary minority had to set up the modernising dictatorship. As well as providing security and education, the totalitarian state would organise the rapid development of the economy.⁸¹ Almost all radicals believed that this Stalinist version of communism had been proved both in the factory and on the battlefield. Once the Cold War started, any other interpretation was marginalised. For nearly fifty years, the imperial rivalry between the two superpowers was expressed as a fierce ideological conflict: Russian communism versus American capitalism.

76 | See V.I. Lenin, *Will the Bolsheviks Maintain Power?*, London: Martin Lawrence, 1932; and Nikolai Bukharin, *Economics of the Transformation Period* (with Lenin's critical notes), London: Pluto, 1971.

77 | See Ante Ciliga, *The Russian Enigma*, London: Ink Links, 1979, pp. 261-291.

78 | See Joseph Stalin, 'The Results of the First Five-Year Plan: Report Delivered to the Joint Plenum of the Central Committee and Central Control Commission of the C.P.S.U. (B), 7 January 1933', in *Problems of Leninism*, Moscow: Foreign Languages Publishing House, 1954, pp. 512-520.

79 | Stalin, 'The Results of the First Five-Year Plan', pp. 541-542.

80 | See Mikhail Bakunin, 'Letter to Sergei Nechaev, June 2nd, 1870', in Arthur Lehning (ed.), *Michael Bakunin: Selected Writings*, London: Jonathan Cape, 1973, pp. 182-194; and Karl Marx, *Capital: a critique of political economy, Volume 3: the process of capitalist production as a whole*, London: Lawrence & Wishart, 1959, pp. 435-441.

81 | See Milo van Djilas, *The New Class: An Analysis of the Communist System*, London: Unwin Books, 1966.

STALIN IN SILICON VALLEY

During the Cold War, each side claimed that its particular socio-economic structures represented the future of all humanity. Despite championing rival systems, the apologists of both superpowers still shared a common – and unacknowledged – theoretical source: Saint-Simon. Ever since the 1917 revolution, the Russian state had been using his futurist prophecies to justify its actions. Learning from its Cold War opponent, the US government began making similar claims about its policies. Although promoting liberal capitalism, American propagandists enthusiastically mimicked the theoretical rhetoric of Stalinist communism. The power of the minority of capitalists was in the long-term interests of the majority of the population. Any flaws in American society would be soon solved by further economic growth. Above all, the utopian potential of the USA was proved by continual introduction of new technologies: the symbol of increasing productive forces.⁸² Alongside their military-political contest over ‘spheres of influence’, the two superpowers also competed over who represented the future.

The collapse of the Soviet Union didn’t end the theoretical influence of Stalinist communism over right-wing American intellectuals. On the contrary, the global mission of the USA had been confirmed by victory over its totalitarian rival. According to one apologist, American neoliberalism is now the realisation of the Hegelian ‘end of history’. Although wars and conflicts will continue, there is no longer any alternative form of socio-economic system.⁸³ For the proponents of the Californian Ideology, this narcissistic assumption is proved by American dominance over the cutting-edge of economic modernity: the Net. If other countries also want to enter the information age, they will have to imitate the peculiar social system of the USA. Like its Cold War predecessors, this contemporary celebration of American neoliberalism appropriates many theoretical assumptions from Stalinist communism. Once again, the enlightened minority is leading the ignorant masses towards a utopian civilisation. Any suffering caused by the introduction of information technologies is justified by the promise of future liberation.⁸⁴ Echoing the Russian tyrant, the digerati even measure progress towards utopia by increasing ownership of modern artefacts: home computers, mobile phones and laptops.⁸⁵ Although the Soviet Union has long disappeared, the proponents of the Californian Ideology are still appropriating the theoretical legacy of Stalinist communism:

82 | See Walt Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge: Cambridge University Press, 1960.

83 | See Francis Fukuyama *The End of History*, London: Penguin, 1992.

84 | See Hudson, ‘There’s no Government like no Government’, p. 33.

85 | See Jon Katz, ‘The Digital Citizen’, *Wired* 5:12 (December 1997), pp. 71-72, http://archive.wired.com/wired/archive/5.12/netizen_pr.html pages.

vanguard party	digerati
The Five-Year Plan	The New Paradigm
boy-meets-tractor	nerd-meets-Net
Third International	Third Wave
Moscow	Silicon Valley
<i>Pravda</i>	<i>Wired</i>
party line	unique thought
Soviet democracy	electronic town halls
Lysenkoism	memetics
society-as-factory	society-as-Gaia-mind
New Soviet Man	post-humans
Stakhanovite norm-busting	overworked contract labour
purges	downsizing
Russian nationalism	Californian chauvinism

THE REVENGE OF SAINT-SIMON

Across the industrialised world, this conservative appropriation of Stalinism now dominates discussions about the Net. Every guru celebrates the emergence of the new technocracy: the digerati. Every pundit claims that these pioneers of the Net are building a new utopia: the information society. Yet, like their Soviet predecessors, contemporary right-wing intellectuals can only produce corrupted versions of Saint-Simon's prophecy. While this socialist philosopher wanted economic progress to liberate everyone, these proponents of reactionary modernism exclude the majority of the population from their hi-tech future. For the privileges of the digerati depend upon the subordination of the unenlightened masses. In the Californian Ideology, permanent technological revolution is always identified with unchanging social hierarchy. However, without the promise of eventual redemption, economic modernisation becomes an end in itself. Once again, conservative philosophers are promising an imaginary future to dissuade people from improving their lived present.

Although always imminent, the arrival of the information society must be perpetually postponed. As in the former Soviet Union, the prophecy of Saint-Simon is never supposed to be actually realised within the USA. On the contrary, the development of the forces of production is designed to reinforce the existing relations of production. For both public and private institutions only introduce new information technologies to advance their own interests. Back in the 1960s, the US military funded the invention of the Net to fight nuclear wars. Ever since the 1970s, financial markets have used computer networks to impose their hegemony over the entire world. During the last few years, both capitalist companies and government departments have adopted the Net to improve communications with their employees, contractors and clients. At the moment, every speculator on Wall Street is looking for the cyber-entrepreneur who is building the next Microsoft. Despite all the utopian pre-

dictions of the digerati, there appears to be nothing inherently emancipatory in the convergence of computing, telecommunications and the media. Like earlier forms of capitalism, the information society remains dominated by the hierarchies of the market and the state.⁸⁶

At the beginning of the new millennium, American neoliberalism seems to have successfully achieved the contradictory aims of reactionary modernism: economic progress and social immobility. Because the long-term goal of liberating everyone will never be reached, the short-term rule of the digerati can last forever. Yet, as in the former Soviet Union, this dialectic of development and stasis is inherently unstable. By modernising agricultural societies, the ruling parties of Stalinist communism slowly destroyed the foundations of their own power. Over time, the relations of production formed by totalitarianism became incompatible with the continual expansion of the forces of production. At this historical moment, Saint-Simon finally had his revenge on his false disciples.

*The [Stalinist] communist revolution (...) has brought about a measure of industrial civilisation to vast areas of Europe and Asia. In this way, material bases have actually been created for a future freer society. Thus, while bringing about the most complete despotism, the [Stalinist] communist revolution has also created the basis for the abolition of despotism.*⁸⁷

Like its erstwhile opponent, American neoliberalism is now also being undermined by the development of the forces of production. As predicted by Saint-Simon, the full potential of recent technological and social advances cannot be realised within the traditional hierarchies of capitalism. According to the proponents of the Californian Ideology, the Net is founded upon the buying and selling of information goods and services. Only through market competition can individual desires be satisfied. Yet, when they go online, Net users are primarily engaged in giving and receiving information as gifts. Quite spontaneously, people are adopting more democratic methods of working together within cyberspace.

Fulfilling the prophecy of Saint-Simon, these new relations of production have emerged at the cutting-edge of economic progress: the Net. Not surprisingly, they are being pioneered by a privileged minority of the world's population: people with access to computer-mediated communications technologies. As a result, these new ways of working are most widespread within the leading capitalist nation: the USA. The technological and social preconditions for the realisation of Saint-Simon's prophecy are now present. While conservative ideologues remain entranced by the theoretical legacy of Stalinist communism, their fellow Americans are discovering the practical benefits of a new version of this concept: cyber-communism.

*Gift cultures are adaptations not to scarcity but to abundance. They arise in populations that do not have significant material-scarcity problems with survival goods.*⁸⁸

86 | See Herbert Schiller, 'The Global Information Highway', in James Brook and Iain Boal (eds), *Resisting the Virtual Life: The Culture and Politics of Information*, San Francisco: City Lights, 1995, pp. 17-33; and Brian Winston, *Media, Technology and Society*, London: Routledge, 1998, pp. 321-336.

87 | Djilas, *The New Class*, pp. 41-42.

88 | Eric Raymond, 'Homesteading the Noosphere', *First Monday* 3:10 (October 1998), p. 9, <http://www.firstmonday.org/ojs/index.php/fm/article/view/621/542>.

The gift economy of the Net emerges from the technological and social advances catalysed by capitalist modernisation. Over the last three hundred years, the reproduction, distribution and manipulation of information has become slowly easier through a long process of mechanisation. A manually operated press produced copies which were relatively expensive, limited in numbers and impossible to alter without recopying. After generations of technological improvements, the same quantity of text on the Net is easily circulated, copied and remixed. However, individuals need money and time to access this advanced communications system. While most of the world's population still live in poverty, the inhabitants of the industrialised countries have reduced their hours of employment and increased their wealth over two centuries of economic growth. Ever since the advent of Fordism, mass production has depended upon workers having enough resources and leisure for mass consumption.⁸⁹ Having disposable income and spare time, many workers within the metropolitan countries are now able to work on their own projects.⁹⁰ Only at this particular historical moment have the technical and social conditions developed sufficiently for the emergence of cyber-communism.

*Capital thus works towards its own dissolution as the form dominating production.*⁹¹

THE ACADEMIC GIFT ECONOMY

The invention of the Net was the greatest irony of the Cold War. At the height of the struggle against Stalinist communism, the US military unwittingly bankrolled the creation of cyber-communism. Faced with the threat of nuclear attack on command and control structures, research money was given to scientists for experiments in computer-mediated communications. Although initially developed for the military, its inventors soon started using the Net for their own purposes. Crucially, scientists simply assumed that all information should be distributed for free over their new communications system. Unlike most other sectors of production, the gift economy has long been the primary method of socialising labour within universities. Funded by the state or by donations, scientists don't have to turn their intellectual work directly into marketable commodities. Instead, research results are publicised by 'giving a paper' at specialist conferences and by 'contributing an article' to academic journals. By being quoted, scientists acquire personal recognition which enhances their career prospects within the university system. Despite increasing commercialisation, the giving away of findings remains the most efficient method of solving common problems within a particular scientific discipline.

*The rationality of professional services is not the same as the rationality of the market (...) In the professions, and especially in science, the abdication of moral control would disrupt the system. The producer of professional services must be (...) responsible for his products, and it is fitting that he not be alienated from them.*⁹²

89 | See Negri, *Revolution Retrieved*.

90 | See André Gorz, *Critique of Economic Reason*, London: Verso, 1989.

91 | Marx, *Grundrisse*, p. 700.

92 | Warren Hagstrom, 'Gift Giving as an Organisational Principle in Science', in Barry Barnes and David Edge (eds), *Science in Context: Readings in the Sociology of Science*, Milton Keynes: Open University, 1982, p. 29.

Because of these pioneers, the gift economy became firmly embedded within the social mores of the Net. Over time, the charmed circle of its users has slowly grown from scientists through hobbyists to the general public. Each new member doesn't just have to observe the technical rules of the system, but also adheres to certain social conventions. Without even thinking about it, people continually circulate information between each other for free. Although the Net has expanded far beyond the university, its users still prefer to co-operate together without the direct mediation of money.

There are even selfish reasons for adopting cyber-communism. By adding their own presence, every user is contributing something to the collective knowledge accessible to those already online. In return for this gift, each individual obtains potential access to all the information provided on the Net by others. Within a market economy, buyers and sellers tend to exchange commodities of equivalent worth. Yet, within the hi-tech gift economy, everyone receives far more from their fellow users than any individual could ever give away.⁹³ Not surprisingly, there is no popular clamour for imposing the equal exchange of the marketplace on the Net. Even the most dogmatic neoliberals are happily participating within cyber-communism.

From the beginning, these gift relations of production were hardwired into the technological structure of the Net. Although funded by the military, scientists developed computer-mediated communications to facilitate the distribution and manipulation of their own research data. Working at universities, they never conceived of this information as a commodity. On the contrary, these academics were advancing their careers by giving away the results of their labour. Creating a communications system for their own use, they incorporated these working methods inside the technologies of the Net.⁹⁴ Above all, their invention depends upon the continual and unhindered reproduction of information. When online, every connection involves copying material from one computer to another. Once the first copy of a piece of information is placed on the Net, the cost of making each extra copy becomes almost zero. The architecture of the system presupposes that multiple copies of documents can easily be cached around the network. Although most of its users are now from outside the academy, the technical design of the Net still assumes that all information is a gift.

*In an information space, we can consider the authorship of materials, and their perception; but (...) there is a need for the underlying infrastructure to be able to make copies simply for reasons of efficiency and reliability. The concept of "copyright" as expressed in terms of copies made makes little sense.*⁹⁵

93 | See Rishab Ghosh, 'Cooking Pot Markets: An Economic Model for the Trade in Free Goods and Services on the Internet', *First Monday* 3:3 (2 March 1998), p. 10, <http://firstmonday.org/ojs/index.php/fm/article/view/580/501>.

94 | See Mark Geise, 'From ARPAnet to the Internet: A Cultural Clash and its Implications in Framing the Debate on the Information Superhighway', in Lance Strate, Ron Jacobson and Stephanie B. Gibson (eds), *Communications and Cyberspace: Social Interaction in an Electronic Environment*, New Jersey: Hampton Press, 1996, pp. 126-132.

95 | See Tim Berners-Lee, 'The World Wide Web: Past, Present and Future', p. 11, <http://www.w3.org/People/Berners-Lee/1996/ppf.html>.

THE ECLIPSE OF COPYRIGHT

Despite its huge popularity, the gift economy of the Net appears to be an aberration. Mesmerised by the Californian Ideology, almost all politicians, executives and pundits are convinced that computer-mediated communications can only be developed through market competition between private enterprises. Like other products, information must be bought and sold as a commodity. This faith in market forces comes from historical experience. During the past three centuries, the mediation of commodity exchange has dramatically increased the productivity of labour. Responding to changes in prices, workers and resources are distributed towards the most efficient sectors of the economy. Competing against rival firms, entrepreneurs must continually improve the methods and means of production. When disciplined by the market, the self-interest of individuals can be directed towards increasing the wealth of the whole nation.⁹⁶

The founding fathers of liberal economics discovered the central paradox of capitalism: individual property is the precondition of collective labour. In pre-modern societies, the aristocracy and clergy's control over their lands was circumscribed by feudal rights and duties. The work of the peasantry was organised through the particular set of customs found in each domain. In contrast, the pioneers of capitalism transformed land into a tradable commodity: the enclosures. Once feudal bonds were removed, work of different types and in various locations could be regulated by a single mechanism: the marketplace.⁹⁷ Over the last few centuries, this modern form of collective labour has become ubiquitous. For the disciplines of market competition not only raised productivity within traditional trades, but also encouraged the development of new industries. Within the metropolitan countries, ordinary people are now using goods and services which were unavailable even to kings and popes in earlier times. However, each of these technological wonders has been shaped by the peculiar production relations of capitalism. As well as satisfying a human desire, every new product must also be sold as a commodity. Within a market economy, the enclosure of collective labour is perpetual.⁹⁸

Under capitalism, most goods and services are produced as commodities. If they're tangible objects or temporary actions, this social transformation is usually unproblematic. However, the commodification of intellectual labour has always been more difficult. While teaching and entertaining are like other services, publications are very different from other goods. Most of the work to create an information product is expended in making the first copy. Even with the earliest printing presses, the cost of producing each subsequent copy is always much cheaper. In an open market, publishers would be encouraged to plagiarise existing works rather than paying for new material. The first capitalist nations quickly discovered a pragmatic solution to this economic problem: copyright. Although everyone could buy cultural artefacts, the right to reproduce them was limited by law. Like every other form of work, intellectual labour could now be enclosed into a commodity.⁹⁹

96 | See Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations: Volume 1 & Volume 2*, Chicago: University of Chicago Press, 1976; and David Ricardo, *The Principles of Political Economy and Taxation*, London: Dent, 1973.

97 | Marx, *Capital Volume 1*, pp. 873-930.

98 | Midnight Notes Collective, 'Introduction to the New Enclosures', *Midnight Notes* 10 (Fall 1990), pp. 1-9.

99 | See Christopher May, 'Thinking, Buying, Selling: Intellectual Property Rights in Political Economy', *New Political Economy* 3:1 (1998), pp. 68-73.

*Milton produced Paradise Lost as a silkworm produces silk, as the activation of his own nature. He later sold his product for £5 and thus became a merchant.*¹⁰⁰

At the end of the 20th century, copyright continues to provide the legal framework for information production. Many forms of intellectual labour are sold as commodities: books, music, films, games and software. The publishers of copyright-protected artefacts have become major industries: the multi-media multinationals. The international legal agreements protecting intellectual property are continually tightened: Berne, the WTO, TRIPS. Not surprisingly, most politicians, executives and pundits assume that the Net will inevitably be commercialised. Like radio broadcasting and cable television in earlier times, the moment of the gift economy can only be temporary. As in other cultural industries, intellectual labour within cyberspace has to be enclosed into information commodities.¹⁰¹

Anticipating this obsession, some pioneers did try to incorporate copyright protection within computer-mediated communications. For instance, Ted Nelson's Xanadu project contained a sophisticated tracking and payment system for enforcing intellectual property. Using this software, individuals could work together by trading information commodities with each other. Yet, despite its technical brilliance, the Xanadu scheme failed for entirely social reasons.¹⁰² Instead of encouraging participation, copyright protection proved to be a major obstacle to online collaboration. For most people benefit more from circulating information without payment than trading cultural commodities. By giving away their own personal efforts, Net users always receive the results of much greater amounts of labour in return from others. The scarcity of copyright cannot compete against the abundance of gifts. Far from intensifying commodification, the Net is the practical vindication of the old hacker slogan: 'information wants to be free'.¹⁰³

At the cutting-edge of modernity, the exchange of commodities now plays a secondary role to the circulation of gifts. The enclosure of intellectual labour is challenged by a more efficient method of working: disclosure. Within universities, scientists have long solved problems within their specialisms by pooling their findings. As the Net grows, more and more people are discovering the benefits of the gift economy. For they are not only have the opportunity to contribute their own information, but also gain access to the knowledge of many others. Everyday, the users of the Net are sending emails, taking part in listservers, making websites, contributing to newsgroups and participating within online conferences. No longer enclosed in the commodity, intellectual labour is continually disclosed as a gift. The passive consumption of fixed information products is transforming into a fluid process of 'interactive creativity'.¹⁰⁴

100 | Karl Marx, *Capital Volume 1*, p. 1044.

101 | See Christopher May, 'Capital, Knowledge and Ownership: Intellectual Property Rights in Political Economy', *New Political Economy* 3:1 (1998), pp. 59-78; John Frow, 'Information as Gift and Commodity', *New Left Review* 219 (September/October 1996), pp. 89-108; and Vincent Porter, 'Wanted: A New International Law to Protect Intellectual Property Rights on the GII', *Intermedia* 23:4 (August/September 1995), pp. 31-36.

102 | See Gary Wolf, 'The Curse of Xanadu', *Wired UK* (June 1995), pp. 70-85 and 112-113.

103 | See Ghosh, 'Cooking Pot Markets'; and Bernard Lang, 'Free Software For All: Freeware and the Issue of Intellectual Property', *Le Monde Diplomatique* (January 1998), <http://mondediplo.com/1998/01/12/freesoft>.

104 | See Tim Berners-Lee, 'Realising the Full Potential of the Web', p. 5, <http://www.w3.org/1998/02/Potential.html>.

*The logic of digital technology leads us in a new direction. Objects, as well as ideas, are no longer fixed, no longer tangible. In cyberspace, there is no weight, no dimensions; structure is dynamic and changing; size is both infinite and immaterial. In this space, stories are written that change with each new reader; new material can be added, and old material can be deleted. Nothing is permanent.*¹⁰⁵

The types of interactive creativity between Net users are very varied. While some online encounters are only temporary, others evolve into long-lasting collaborations. Although many users only talk to close friends and family, some are building relationships which solely exist on the Net. If most online conversations are frivolous, other groups are meeting to talk about serious issues. Out of all these different types of interactive creativity, Net users have developed their own distinctive form of social organisation: the network community.¹⁰⁶ By circulating gifts between each other, individuals are able to work together on common projects. For, as well as having fun, the members of network communities are engaged in a continuous process of collective labour. Everyone can send out gifts of texts, visuals, animations, music, games and other software to their online colleagues. In return, they will receive lots of virtual presents from their fellow community members. By contributing their own work, each individual potentially possesses the creative efforts of the whole network community.¹⁰⁷

The pleasure of giving and receiving gifts can radically change the personal experience of collective labour. Within the marketplace, individuals primarily collaborate through the impersonal exchange of commodities. The buyers and sellers should remain unconcerned about each other's fate. In contrast, the circulation of gifts encourages friendships between its participants. The construction of a successful network community is always a labour of love. Working within cyber-communism can be not only more productive, but also more enjoyable than digital capitalism. According to Howard Rheingold, these social benefits of the hi-tech gift economy are not confined to the Net. Despite all their wealth, many Americans are suffering from the isolation and alienation imposed by market competition. Luckily, some can now find friendship and intimacy within network communities. Since there is no necessity for the enclosure of collective labour within cyberspace, Americans can compensate for the damage caused by their nation's 'loss of a sense of a social commons'.¹⁰⁸

The results of interactive creativity within network communities are often trivial and mundane. Yet, at the same time, some online collaborations are creating very sophisticated products. Among the most celebrated are the network communities working on free software. From the beginning, scientists developed the core programs of the Net as gifts. The exponential expansion of the system was only made possible by the absence of proprietary barriers. For instance, although the Xanadu project contained most of the

105 | Neil Kleinman, 'Don't Fence Me In: Copyright, Property and Technology', in Lance Strate, Ron Jacobson and Stephanie B. Gibson (eds), *Communications and Cyberspace: Social Interaction in an Electronic Environment*, New Jersey: Hampton Press, 1996, p. 76.

106 | See Rheingold, *The Virtual Community*, p. 12; and Robin Hamman, 'Computer Networks Linking Network Communities: Effects of Computer Network Use Upon Pre-Existing Communities', <http://cybersoc.blogs.com/mphil.html>.

107 | See Ghosh, 'Cooking Pot Markets'; and Peter Kollock, 'The Economics of Online Cooperation: Gifts and Public Goods in Cyberspace', in Marc Smith and Peter Kollock (eds), *Communities in Cyberspace*, London: Routledge, 1999, pp. 220-239.

108 | Rheingold, *The Virtual Community*, p. 12.

technical capabilities of the Web, this prototype of computer-mediated communications lacked the 'killer app' of Tim Berners-Lee's invention: the absence of copyright. Neither the program nor its products were designed to be commodities.¹⁰⁹

In recent years, the rapid growth of the Net has catalysed an exuberant revival of the hacker ethic. Increasingly frustrated with commercial products, techies have come together to write their own software. When enclosed by copyright, a program's capabilities are frozen until the next version is made available. Even its bugs cannot be fixed. In contrast, when disclosed as a gift, this virtual machine can be continually modified, amended and improved by anyone with the appropriate programming skills. The product has become a process. Above all, each member of the network community developing a program potentially has access to the skills of all their colleagues. If one person can't solve a software problem, others within the group will help find the solution.¹¹⁰ By participating within such interactive creativity, formerly isolated techies are now making friends across the world. Like other network communities, collective labour within free software development can be not only more efficient, but also more enjoyable than working on commercial projects. As technological convergence intensifies, this gift economy of the Net is now encroaching further into the market economy of computing.¹¹¹ Starting from a prototype by Linus Torvalds, a network community of developers is building their own non-proprietary operating system: Linux.¹¹² For the first time, Microsoft has a serious competitor for Windows. Enclosed by a capitalist monopoly, many American techies are working hard to perfect its pragmatic alternative: software cyber-communism.

*[Y]ou assume that bugs are generally shallow phenomena – or, at least, that they turn pretty shallow when exposed to a thousand eager co-developers pounding on every single new release.*¹¹³

The convergence of many different technologies around digital formats is also reinforcing the gift economies found in other areas of cultural production. According to the multimedia multinationals, the Net will soon have to adopt the methods of the marketplace. Protected by encryption and passwords, digital information will be traded as a commodity. However, these aspiring enclosers of the Net are already confronted by the partial de-commodification of their own cultural industries. For instance, the home-taping of music has existed for many decades. The continual advances in digital reproduction and the rapid spread of the Net are making this piracy of copyright material ever easier.¹¹⁴ Crucially, the most innovative forms of popular music now emerge from the creative appropriation of other people's intellectual property: house, hip-hop, drum & bass. Instead of remaining frozen in a single recording, tunes and breaks can be repeatedly sampled, mixed and re-

109 | See Berners-Lee, 'The World Wide Web'.

110 | See Andrew Leonard, 'Let My Software Go', *Salon*, 30 March 1998, <http://www.salon.com/1998/03/30/feature947788266>.

111 | See Keith Porterfield, 'Information Wants to be Valuable: A Report from the First O'Reilly Perl Conference (19-21 August 1997)', <http://www.netaction.org/articles/freesoft.html>.

112 | See Linux Online, *F.A.Q.*

113 | Eric Raymond, 'The Cathedral and the Bazaar', *First Monday* 3:3 (March 1998), p. 7, <http://firstmonday.org/ojs/index.php/fm/article/view/578>.

114 | See John Chesterman and Andrew Lipman, *The Electronic Pirates: DIY Crime of the Century*, London: Comedia/Routledge, 1988 pp. 36-45.

mixed. If someone has a good idea, many other musicians will try to refine the concept. Like the Net, contemporary DJ culture is also interactive creativity.¹¹⁵

For years, the most popular word entered into search engines was quite predictable: 'sex'. Yet, in 1999, the top request became the music format of the Net: 'MP3'.¹¹⁶ For the commercial music industry, the minor problem of home-taping is amplifying into a major crisis. Since copying and distributing is now so easy, many people are giving away digital recordings not only to their friends, but also to complete strangers. As music is integrated within the Net, the scarcity of commodities is spontaneously transforming into the abundance of gifts.¹¹⁷ As well as facilitating the piracy of existing recordings, technological convergence also deepens musical interactive creativity. Like many other people, musicians are working together, making friends and inspiring each other within network communities. By publishing their own material, they can offer their music as gifts to Net users across the world. From these online collaborations, they are inventing new forms of rhythmic expression: midi-jamming, interactive music, cyber-trance.

As other media technologies converge into the Net, all forms of cultural production are slowly integrating into the hi-tech gift economy. Even television and film-making will soon be transformed by the possibilities of interactive creativity. Despite their power and wealth, the multi-media multinationals can only inhibit this economic transformation. Quite spontaneously, the users of the Net are adopting more efficient and enjoyable ways of working together. At the dawn of the new millennium, many Americans are now experiencing the practical benefits of cyber-communism:

commodity	gift
enclosure	disclosure
copyright	piracy
fixed	fluid
product	process
proprietary	open source
digital encryption	free download
original recording	latest remix
scarcity	abundance
alienation	friendship
market competition	network communities
e-commerce	cyber-communism

115 | See Sheryl Garratt, *Adventures in Wonderland: A Decade of Club Culture*, London: Headline, 1998 and Martin James, *State of Bass: Jungle – The Story so Far*, London: Boxtree, 1997.

116 | See Nathaniel Wice, 'Sony Tries to Put MP3 Genie Back in Bottle', *Time Digital*, 12 May 1999, <http://web.archive.org/web/20000818213338/http://www.time.com/time/digital/daily/0,2822,24585,00.html>.

117 | See Leonard, 'Mutiny on the Net'.

THE MARKET ON THE COMMONS

Compared with the rest of humanity, the inhabitants of the USA are already very privileged. Although still denied adequate welfare provision, most Americans not only consume more goods and services, but also enjoy greater democratic liberties than the majority of the world's population. Over the past two hundred years, the continual expansion and intensification of commodity exchange has massively raised the productivity of collective labour in the USA. Regulated by the federal government and local states, rival entrepreneurs have competed to build an increasingly complex and interdependent economic system. According to almost all American politicians, executives and pundits, the next stage of the marketisation of society is being pioneered at the cutting-edge of technology: the Net. As in the past, the enclosure of new types of collective labour will inevitably raise living standards and extend personal freedoms within the USA. There is no alternative to the organising principle of the existing relations of production: *work-as-commodity*.

Ironically, the revenge of Saint-Simon is now being visited upon his American false disciples. As in the former Soviet Union, constant increases in the forces of production are threatening the dominant relations of production. Far from being the apotheosis of commodity exchange, the social and technical structures of computer-mediated communications embody an alternative form of collective labour: the gift economy. If individuals were forced to collaborate primarily through e-commerce, their opportunities to participate within interactive creativity would be very limited. The full potential of the productive forces of the Net can only be realised by adopting the most advanced relations of production: cyber-communism.

At such historical moments, the proponents of reactionary modernism are thrown into an existential crisis. Despite their deep ideological differences, almost all right-wing intellectuals have the same goal: economic development without social progress. Sometimes for decades, ruling elites can successfully combine these contradictory aims of reactionary modernism. However, the continual growth of the forces of production will eventually undermine the existing relations of production. Sooner or later, the supporters of reactionary modernism are forced to make a hard choice: economic growth or social stasis. For instance, the followers of Stalinist communism were confronted by this dilemma at the end of the 1980s. Wanting to catch up with their Western neighbours, most Eastern European politicians, executives and intellectuals accepted the demise of the totalitarian state which provided their livelihoods. In contrast, the Serbian ruling elite decided to choose another option: destroying the forces of production. Fearful of losing their wealth and power, they launched wars and 'ethnic cleansing' to block any further social and economic progress. Instead of moving towards the utopian future, their totalitarian state headed in another direction: 'the flight from modernity'.¹¹⁸

Within the USA, there are also powerful groups championing reactionary anti-modernism: religious fundamentalists, white supremacists and the gun lobby. As in Serbia, some influential people are willing to sacrifice economic growth to maintain the existing social order. However, most of those with power and wealth would like to avoid to making this choice. Instead, they want to update reactionary modernism for the age of the Net. Within right-wing American politics, hi-tech neoliberalism has long been the optimistic alter-

118 | See Latinka Perovic, 'The Flight from Modernity', *Bosnia Report*, 28 May 1999, http://www.bosnia.org.uk/news/news/280599_1.cfm.

native to traditional conservatism. Far from fearing the future, its prophets confidently predict that economic progress will eventually liberate humanity. Unable to use the 'L-word' for peculiar historical reasons, American neoliberals even describe themselves as 'libertarians': a moniker taken from revolutionary left-wing anarchists.

This optimistic form of conservatism is easily adapted for right-wing analyses of the Net. For instance, the proponents of the Californian Ideology still believe that constant technological change can be reconciled with the preservation of social hierarchy.¹¹⁹ Like their conservative forebears, these gurus often claim that their contradictory aims will be realised by mystical means: the Gaia mind, post-humans and memetics. More importantly, they also advocate a practical method for perpetuating reactionary modernism: the hybridisation of the commodity and the gift.

Like pioneers in the Wild West, cyber-entrepreneurs are seizing all opportunities to enclose the newly-opened electronic frontier. At the cutting-edge of convergence, the profits of commercial companies now depend upon the rapid expansion of the hi-tech gift economy.¹²⁰ The hardware and software for accessing the Net can be sold as commodities by large companies: IBM, Sun, Microsoft. The circulation of free information among users can be enclosed within commercial sites: AOL, Yahoo!, GeoCities. Instead of resisting all changes, the digerati must embrace some social advances to reap the material benefits of technological progress. The lucky few have discovered a new way of achieving the American dream: the enclosure of cyber-communist labour into digital capitalist property.¹²¹ Most famously, this bizarre union of opposites underpins the frenzied speculation in Net stocks. Each moment of interactive creativity is a potential source of profits. If the correct hybrid of gift and commodity can be found, collective labour will immediately transmute into individual wealth. Excited by the riches of some cyber-entrepreneurs, many Americans are now speculating on the same assumption about the Net: 'communism is (...) a *generalisation and consummation* of (...) private property'.¹²²

For nearly thirty years, the prophets of hi-tech neoliberalism have identified economic growth with social stasis. In many sectors, they have advocated old-fashioned methods for raising profits: extending hours, reducing wages, speeding-up production, cutting welfare and increasing pollution. Yet, within the Net, these gurus champion the synthesis of both technological innovation and social progress. For the commodification of cyberspace is impossible without some accommodation with the gift economy. Even the increasing importance of e-commerce is facilitated by the non-commercial structure of the Net. The cost of entry into the digital marketplace is so low due to the absence of proprietary barriers. Small companies now have access to computer-mediated-communications once only available to government agencies, financial institutions and multinational corporations. Cutting-out the middlemen, many providers of goods and services can increase their profits by dealing directly with suppliers and customers over the Net. Excited by these

119 | See *The Californian Ideology*.

120 | See Kevin Kelly, 'New Rules for the New Economy: Twelve Dependable Principles for Thriving in a Turbulent World', *Wired* 5:9 (September 1997), pp. 140-144 and 186-197, <http://archive.wired.com/wired/archive/5.09/newrules.html>.

121 | See Andrew Leonard, 'The Really New Economy: Red Hat's IPO', *Salon*, 9 June 1999, http://www.salon.com/1999/06/09/red_hat.

122 | Karl Marx, *Economic and Philosophical Manuscripts of 1844*, Moscow: Foreign Languages Publishing House, 1961, p. 99.

developments, the proponents of the Californian Ideology believe that the freest of all free markets is now being held on the commons of cyberspace.¹²³

THE PURITY OF THE GIFT

Opposed to this invasion by commercial interests, some left-wing activists are reviving a purist vision of the gift. The enclosure of the Net will be prevented by refusing any compromise with the commodity.¹²⁴ This revolutionary position takes its inspiration from 1960s hippie radicalism. Over thirty years ago, many young people rebelled against the socio-economic systems of both the USA and the Soviet Union. The material benefits of modernity no longer compensated for the political authoritarianism and cultural conformity imposed by industrialism. Disillusioned with the hi-tech future, these hippies sought inspiration from the tribal past. While many were simply lifestyle tourists, others were looking for a revolutionary alternative to modernity. Crucially, some left-wing intellectuals believed that this utopia could be found in the gift economy of Polynesian tribes: the potlatch.¹²⁵

For radical hippies, this gift economy was the complete antithesis of capitalism. Instead of accumulating surpluses, individuals in these primitive societies gained prestige by giving away their wealth at public celebrations. If market competition required alienating work to produce ever more goods and services, the potlatch involved the pleasurable destruction of excess resources. While the modern commodity imposed hierarchy and utilitarianism, the primitive gift encouraged equality and hedonism. Rejecting work-as-commodity, the New Left proclaimed a new organising principle for their utopian society: *waste-as-gift*.¹²⁶

Many years later, this revolutionary anti-modernism still influences radical analyses of computer-mediated communications. Although emerging at the cutting-edge of technology, the gift economy of the Net can easily be confused with the potlatch of primitive societies. These tribal attitudes are also be found within dance music, free parties, protest movements and other forms of 'DIY culture'.¹²⁷ Imitating their hippie elders, left-wing Net activists emphasise the autonomy of these gift relationships from the corruption of commodity exchange. Rejecting any hybridisation, they champion the destruction of private property through the piracy of copyright material: waste-as-gift. Instead of being bought and sold, information will become freely available to everyone participating within the online potlatch.

123 | See Kelly, *Out of Control*; Hudson, 'There's no Government like no Government'; and Dyson, *Release 2.0*.

124 | See Critical Art Ensemble, *Electronic Civil Disobedience and Other Unpopular Ideas*, New York: Autonomedia, 1996.

125 | See Marcel Mauss, *The Gift: The Form and Reason for Exchange in Archaic Societies*, London: Routledge, 1990.

126 | See the Situationist International, 'The Beginning of An Era', in Ken Knabb (ed.), *Situationist International Anthology*, Berkeley: Bureau of Public Secrets, 1981; Jean Baudrillard, *The Mirror of Production*, St. Louis: Telos, 1975; and Toni Negri, 'Capitalist Domination and Working Class Sabotage', in Red Notes (ed.), *Working Class Autonomy and the Crisis: Italian Marxist Texts of the Theory and Practice of a Class Movement 1964-79*, London: Red Notes/CSE Books, 1979, pp. 92-138.

127 | See Elaine Brass and Sophie Koziell with Denise Searle (eds), *Gathering Force: DIY Culture – Radical Action for Those Tired of Waiting*, London: Big Issue, 1997; and George McKay (ed.), *DIY Culture: Party & Protest in Nineties Britain*, London: Verso, 1998.

Unfortunately, this revival of revolutionary anti-modernism also has reactionary implications. As in earlier times, left-wing intellectuals are tempted to see themselves as a vanguard leading the unenlightened masses. Drawn from the intermediate layer, they champion the 'refusal of work' to symbolise their superiority over the rest of the working class. Although deprived of the Soviet Union, some members of the revolutionary minority will still apologise for foreign dictatorships which resist American hegemony. Despite the advent of new information technologies, old political habits are difficult to discard. The revolutionary rhetoric of hippie communism is haunted by the reactionary practice of Stalinist communism.¹²⁸

THE AMERICAN ROAD TO COMMUNISM

Within the USA, this left-wing vision of the pure gift remains marginalised. Ever since independence, a fervent belief in private enterprise has defined American exceptionalism. During the Cold War, no patriot could support the revolutionary ideology of the national enemy. Even today, many people still virulently oppose the public provision of welfare services considered indispensable in other developed countries.¹²⁹ Yet, these same right-wing Americans are happily participating in the construction of cyber-communism. Quite spontaneously, they adopt the working methods which are most beneficial to their own interests. Sometimes, they want to engage in e-commerce. At other times, they prefer to collaborate within the hi-tech gift economy. Like everyone else, conservative Americans choose cyber-communism for pragmatic reasons.

Despite their addiction to free market nostrums, Americans have long preferred practical solutions over ideological correctness. Sceptical about the theoretical obsessions of Europeans, they have always been proud of their 'Yankee pragmatism'.¹³⁰ Updating this tradition for the Net, most Americans simply ignore the widening discrepancy between their political beliefs and their everyday activities. Although forced to talk like neoliberals, they often choose to act like communists within cyberspace. For the literal application of the Californian Ideology would immediately remove many of the benefits of the Net. Not surprisingly, few Americans will openly admit to their pleasure in sinning against the national myth. While the reformist demand for a public health system remains obviously left-wing, the subversive implications of circulating information as gifts are literally unthinkable. Without any self-doubt, Eric Raymond can be simultaneously a passionate advocate of the decommodisation of software and '...a self-described neo-pagan [right-wing] libertarian who enjoys shooting semi-automatic weapons...'¹³¹

Among Americans, cyber-communism is the love that dares not speak its name. No one talks about what everyone is doing. Above all, the historical significance of their collective behaviour on the Net can never be discussed. Within everyday life, people have always

128 | See Richard Barbrook, 'The Holy Fools: Revolutionary Elitism in Cyberspace', in Patricia Pisters (ed.), *The Micropolitics of Media Culture: Reading the Rhizomes of Deleuze and Guattari*, Amsterdam: Amsterdam University Press, 2001, pp. 159-175, <http://www.imaginaryfutures.net/2007/04/13/the-holy-fools-long-mix-by-richard-barbrook>.

129 | See Lipset, *American Exceptionalism*.

130 | See Alexis de Tocqueville, *Democracy in America: Volume 2*, New York: Vintage, 1975, pp. 3-20.

131 | Leonard, 'Let My Software Go!', p. 2.

given gifts to each other. Many social activities are already organised by voluntary labour and with donated resources. The DIY culture is the celebration of doing-things-for-yourself in all aspects of life from politics to music.¹³² Now, with the advent of the Net, this gift economy is challenging market competition at the cutting-edge of modernity. For only these new relations of production can fully realise the social and technical potential of its advanced productive forces. When digital gifts are freely circulated, people are able to participate within interactive creativity. As information is incessantly reproduced, the quantity of collective labour embodied in each copy is soon reduced to almost nothing. Under these social and technical conditions, circulating information as gifts can be not only more enjoyable, but also more efficient than commodity exchange. Although appreciating the benefits of e-commerce, Americans are enthusiastically participating within an alternative form of collective labour: cyber-communism.

In earlier times, the abolition of capitalism was envisaged in apocalyptic terms: revolutionary uprisings, mass mobilisations and modernising dictatorships. In contrast, cyber-communism is now an unremarkable everyday experience within the USA. The users of the Net are spontaneously adopting more enjoyable and efficient ways of working together. Instead of destroying the market economy, Americans are engaged in the slow process of *superseding* capitalism.¹³³ In this dialectical movement, hi-tech neoliberals perfect the existing relations of production by developing e-commerce: work-as-commodity. Reacting against this enclosure of cyberspace, left-wing activists destroy information property within the online potlatch: waste-as-gift. For those nostalgic for ideological certainty, there can be no compromise between these contradictory visions of the Net.

Yet, the synthesis of these dialectical opposites must happen for pragmatic reasons. Often Net users benefit more from working together through circulating gifts than from taking part in e-commerce. Living within a prosperous society, many Americans are no longer solely motivated by monetary rewards. With sufficient time and money, they will also work to gain the respect of their peers for their efforts. Increasing numbers of people are now satisfying this desire for recognition within network communities. Individuals receive praise and friendship from their fellow-members by making excellent contributions to collective projects. Within the Net, the rise in the productive forces encourages a more advanced form of collective labour: *work-as-gift*.¹³⁴

*...Work is born from the Desire for Recognition (...) and it preserves itself and evolves in relation to this same Desire.*¹³⁵

The dialectical process of superseding capitalism is marked by the evolving syntheses of gift and commodity within the Net. During this transition, neither the disclosure nor the enclosure of collective labour can be assumed. If the correct hybrid isn't found, indi-

132 | See Lewis Hyde, *The Gift: Imagination and the Erotic Life of Property*, London: Vintage, 1999; and Brass, Koziell and Searle, *Gathering Force*.

133 | See Georg Hegel, *Logic*, Oxford: Oxford University Press, 1873, pp. 141-142; and Marx, *Economic and Philosophical Manuscripts*, pp. 98-114.

134 | See Alfie Kohn, 'Studies Find Reward Often No Motivator', Free Software Foundation, 19 January 1987, <http://www.gnu.org/philosophy/motivation.html>; and Leonard, 'Let My Software Go!'

135 | Alexandre Kojève, *Introduction to the Reading of Hegel: Lectures on the Phenomenology of the Spirit*, Ithaca: Cornell University Press, 1969, p. 230.

viduals working on a collective project can quickly disappear to more agreeable locations within cyberspace. Sometimes, they will look for monetary rewards. On many occasions, they will prefer the freedom of autonomous labour. Depending upon circumstances, both these desires need to be partially realised in a successful hybrid of gift and commodity. During the last two hundred years, the intimate bonds of kinship and friendship have simultaneously inhibited and underpinned the impersonal relationships needed for rapid economic growth. The modern has always co-existed with the traditional. Now, in the age of the Net, the exchange of commodities is being both intensified and prevented by the circulation of gifts. The modern must synthesise with the hyper-modern.

The gurus of the Californian Ideology emphasise the survival of social hierarchy within these hybrid productive relations of the Net. Already, successful cyber-entrepreneurs begin their careers by giving away their most desirable products. If their brand is widely adopted, they hope to make money by providing supporting services and products to its users. A lucky few digerati can become very wealthy by selling shares to Wall Street speculators.¹³⁶ Yet, even in this conservative synthesis of gift and commodity, copyright has ceased to be the precondition of information production. Every consumer is now won with promotional items. Unable to resist the technical possibilities of digital convergence, some neoliberal ideologues accept the eventual disappearance of copyright.¹³⁷ Since plagiarism will soon become ubiquitous, cyber-entrepreneurs must adopt other ways of commodifying the Net: real-time services, advertising, merchandising. The hi-tech aristocracy can only protect their privileges by continually making gifts to the masses.

This hybridisation of productive relations is prevalent across the hi-tech industries. For instance, many people gain employment only after serving an apprenticeship within network communities. If their work is respected among their peers, they can join the emerging intermediate layer employed by e-commerce companies: the digital artisans. Although operating outside the academy, the gift of information still facilitates the sale of labour. According to the prophecies of Saint-Simon, innovative workers in advanced industries should be pioneering the economic and cultural conditions for social emancipation. The intermediate layer is the vanguard of modernity. Faithful to this role, digital artisans are making many technological and aesthetic advances. Despite having to sell their creativity for money, their ways of working are often egalitarian and collaborative. Once again, the intermediate layer is inventing the future.

Yet, even this synthesis is already being superseded at the cutting-edge of modernity. The heroic minority is no longer alone. After two centuries of economic growth, ordinary people are also able to adopt advanced productive relations. Within the Net, working together by circulating gifts is now a daily experience for millions of people. As well as in their jobs, individuals also collaborate on collective projects in their leisure time. Freed from the immediate disciplines of the marketplace, work can increasingly become a gift. The enlightened few are no longer needed to lead the masses towards the future. For the majority of

136 | See Michael Cusumano and David Yoffie, *Competing on Internet Time: Lessons from Netscape and its Battle Against Microsoft*, New York: Free Press, 1998; and Leonard, 'The Really New Economy'.

137 | See John Perry Barlow, 'The Economy of Ideas: A Framework for Rethinking Patents and Copyrights in the Digital Age (Everything You Know About Digital Property is Wrong)', *Wired* 2:3 (March 1994), pp. 84-90 and 126-129, <http://archive.wired.com/wired/archive/2.03/economy.ideas.html>.

Net users are already participating within the productive relations of cyber-communism. Everyday, they are sending emails, taking part in listservers, making websites, contributing to newsgroups and participating within online conferences. Having no need to sell information as commodities, they spontaneously work together by circulating gifts. All across the world, politicians, executives and pundits are inspired by the rapid expansion of e-commerce in the USA. Mesmerised by neoliberal ideology, they fail to notice that most information is already circulating as gifts within the Net. Engaged in superseding capitalism, Americans are successfully constructing the utopian future in the present: cyber-communism.

*No social order is ever destroyed before all the productive forces for which it is sufficient have been developed, and new superior relations of production never replace older ones before the material conditions for their existence have matured within the framework of the old society. (...) The bourgeois mode of production is the last antagonistic form of the social process of production – (...) an antagonism that emanates from the individuals' social conditions of existence – but the productive forces developing within bourgeois society create also the material conditions for a solution of this antagonism. The prehistory of humanity accordingly closes with this social formation.*¹³⁸

THE DIALECTICS OF CYBER-COMMUNISM

The Positive:	work-as-commodity
	e-commerce
	reactionary modernism
The Negation:	waste-as-gift
	potlatch
	revolutionary anti-modernism
The Negation of the Negation:	work-as-gift
	network communities
	revolutionary modernism

138 | Marx, *A Contribution to the Critique of Political Economy*, pp. 21-22.

Respect due: Andrej Skerlep, Andy Allenson, Andy Cameron, Christopher May, Dick Pountain, John Armitage, John Barker, Helen Barbrook, Jim McLellan, John Barker, John Wyver, Lance Strate, Les Levidow, Luther Blissett, Maren Hartmann, nettime, Rhiannon Patterson, Rishab Ghosh, Robin Hamman, Roya Jakoby, Simon Schaffer, Vuk Cosic, Warwick Metcalfe and the staff & students of the Hypermedia Research Centre, University of Westminster, London.

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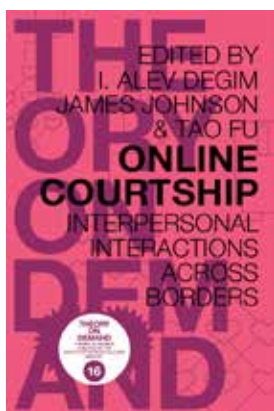
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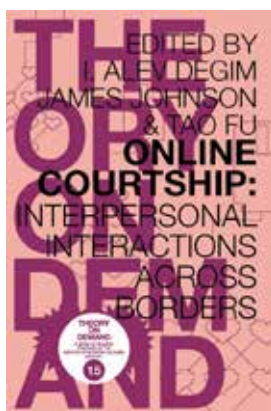
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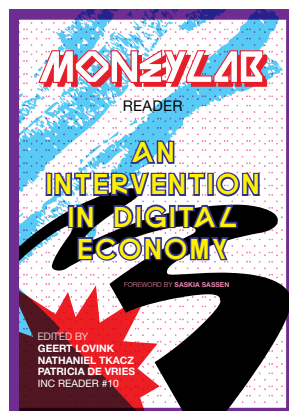
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Richard Barbrook and Andy Cameron's *The Californian Ideology*, originally published in 1995 by *Mute* magazine and the nettime mailinglist, is the iconic text of the first wave of Net criticism. The internet might have fundamentally changed in the last two decades, but their demolition of the neoliberal orthodoxies of Silicon Valley remains shocking and provocative. They question the cult of the dot-com entrepreneur, challenging the theory of technological determinism and refuting the myths of American history. Denounced as the work of 'looney lefties' by Silicon Valley's boosters when it first appeared, *The Californian Ideology* has since been vindicated by the corporate take-over of the Net and the exposure of the NSA's mass surveillance programmes.

Published in 1999 at the peak of the dot-com bubble, Richard Barbrook's *Cyber-Communism* offers an alternative vision of the shape of things to come, inspired by Marshall McLuhan's paradoxical 'thought probes'. With the Californian Ideology growing stronger, the Net was celebrated as the mechanical perfection of neoliberal economics. Barbrook shows how this futurist prophecy is borrowed from America's defunct Cold War enemy: Stalinist Russia. Technological progress was the catalyst of social transformation. With copyright weakening, intellectual commodities were mutating into gifts. Invented in capitalist America, the Net in the late-1990s had become the first working model of communism in human history.

In an introduction written specially for this 20th anniversary edition, Richard Barbrook takes a fresh look at the hippie capitalists who shaped Silicon Valley and explains how their influence continues to this day. These thought probes are still relevant in understanding the contradictory impact of ubiquitous social media within the modern world. As McLuhan had insisted, theoretical provocation creates political understanding.

Richard Barbrook is Senior Lecturer in the Department of Politics and International Relations at the University of Westminster, London, England. He is a trustee of CyberSalon and a founder member of Class Wargames. He has written about the politics of the Net and gaming in his books *Media Freedom: The Contradictions of Communications in the Age of Modernity*; *The Class of the New*; *Imaginary Futures: From Thinking Machines to the Global Village*; and *Class Wargames: Ludic Subversion Against Spectacular Capitalism*.

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