HACTIVISM AND CYBERWARS

REBELS WITH A CAUSE

TIM JORDAN AND PAUL TAYLOR

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Hacktivism and Cyberwars

As global society becomes more and more dependent, politically and economically, on the flow of information, the power of those who can disrupt and manipulate that flow also increases. In *Hacktivism and Cyberwars: Rebels with a cause?* Tim Jordan and Paul A. Taylor provide a detailed history of hacktivism's evolution from early hacking culture to its present-day status as the radical face of online politics. They describe the ways in which hacktivism has re-appropriated hacking techniques to create an innovative new form of political protest. A full explanation is given of the different strands of hacktivism and the 'cyberwars' it has created, ranging from such avant-garde groups as the Electronic Disturbance Theatre to more virtually focused groups labelled 'the digitally correct'. The full social and historical context of hacktivism is portrayed to take into account its position in terms of new social movements, direct action and its contribution to the globalisation debate. This book provides an important corrective flipside to mainstream accounts of e-commerce and broadens the conceptualisation of the Internet to take into full account the other side of the digital divide.

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Hacktivism and Cyberwars

Rebels with a cause?

Tim Jordan and Paul A. Taylor

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1 Hacking and hacktivism

Protest gone electronic

The existence of popular political protest is a mark of all communities; whether it is manifested in spectacular street demonstrations or grey-tinged meetings of local associations. The self-activity of people marks their desire to affect, even control, the spaces and times they live in, even if that means attempting to do so within conditions of no one's choosing. This desire and its always attendant restrictions have become manifest in the spaces and times of virtual lives, both in actions to control cyberspace and actions to affect offline life through cyberspace.

Hacktivism is the emergence of popular political action, of the self-activity of groups of people, in cyberspace. It is a combination of grassroots political protest with computer hacking. Hacktivists operate within the fabric of cyberspace, struggling over what is technologically possible in virtual lives, and reaches out of cyberspace utilising virtual powers to mould offline life. Social movements and popular protest are integral parts of twenty-first-century societies. Hacktivism is activism gone electronic.

While movements to defend cyberspace have existed for some time (Jordan 1999b), the emergence of popular protest within cyberspace – whether about cyberspace or using cyberspace – has not. It is the emergence of virtual direct actions that this book is concerned with. Hacktivism does not mean any politics associated with cyberspace, in which case all politics would be hacktivist as there are very few areas of social and cultural conflict that currently do not touch virtuality in some form or other. Rather, emerging at the end of the twentieth century, hacktivism is a specific social and cultural phenomenon, in which the popular politics of direct action has been translated into virtual realms.

This does not mean that other forms of popular or social movement politics do not exist in cyberspace; it simply means we are focusing on a particular type of cyberspatial politics (Downing 2001; Pickerill 2001; Atton 2002; Meikle 2002). As one pioneer group of hacktivists put it:

> The rules of cultural and political resistance have dramatically changed. The revolution in technology brought about by the rapid development of computer and video has created a new geography of power relations in the first world that could only be imagined as little as twenty years ago: people are reduced to data, surveillance occurs on a global scale, minds are melded to screenal reality, and an authoritarian power emerges that thrives on absence. The new geography is a virtual geography, and the core of political and cultural resistance must assert itself in this electronic space.
>
> (CAE 1994: 3)

This book maps one of the key components of this new geography of power: online direct action or hacktivism. To gain a clearer initial view of hacktivism we must draw out a number of issues.

Hacktivism's sudden and at times shocking appearance resulted from the intersection of three divergent currents: hacking, informational societies and modern social protest and resistance. Below is an outline of the book's structure and content showing how we trace these three currents in order to situate hacktivism within its appropriate political and cultural context, allowing both its novelty and roots to become clearer. Having outlined hacktivism's main influences, it then becomes possible to map its key components and consequences.

Chapter outlines

1 Hacking and hacktivism

The present chapter outlines the first fundamental source for hacktivism: the hacking community. Because hacktivism uses computer techniques borrowed from the pre-existing hacker community, it is difficult to identify definitively where hacking ends and hacktivism begins. It is accordingly imperative for our account of hacktivism that we begin in the innards of cyberspace with those who fear no technological boundary; with hackers. The succeeding two chapters will, in turn, deal

with the general socio-economic times from which hacktivism emerged and more specifically with the history of protest that hacktivism has drawn upon.

2 *Viral times: vulnerability, uncertainty and ethical ambiguity in the information age*

This chapter explores the general social climate of fear and vulnerability that has accompanied the advent of advanced communication networks. It shows how such phenomena as computer viruses are merely symptomatic of the increased vulnerability felt by developed economies. This is the flip side of their ever-expanding and more complex systems of distribution and transmission that existed prior to 9/11 but are now even more marked. Hacktivism is presented in this context as a form of *virtual politics* that seeks to adapt its mode of dissent to the reality of these complex networks, which it re-imagines as webs to be traversed in a proactive rather than reactive manner.

3 *Hacktivism and the history of protest*

In this chapter the history of protest is sketched in, culminating in an outline of the anti-globalisation movement. This late twentieth- and early twenty-first-century movement forms the key activist context for hacktivism; it is the social movement within which hacktivism arose. To grasp the nature of this movement we fill in the history of popular protest, focusing particularly on changes in the nature of protest following the 1960s. We explore how a newly varied field of popular political activism provided fertile ground for a range of protests and how these accumulated into a wide struggle around the nature of globalisation. Hacktivism in all its incarnations has to be seen in relation to these struggles.

4 *Mass action hacktivism: anti-globalisation and the importance of bad technology*

Mass action hacktivism is one of two main types of online politics that form hacktivism as a whole. Here we meet the invention of electronic civil disobedience in actions that seek to take traditional forms of protest – boycotts, street demonstrations, sit-ins – and reinvent them for the virtual realm. Mass action hacktivism is tied closely to the

anti-globalisation movement, with which it has close relations in its support for actions to help, for example, the Zapatistas or to close down World Trade Organisation (WTO) meetings. The paradox emerges that mass action hacktivism seeks legitimation though the support of many people but recreating these bodies in cyberspace, which is inherently a-physical, means rejecting some of the immanent powers of cyberspace. Mass action hacktivism produces limited implementations of cyberspatial powers to ensure its actions reflect a mass politics.

5 *Digitally correct hacktivism: the purity of informational politics*

Digitally correct hacktivism is the second main type of online politics that forms hacktivism. These hacktivists seek to radicalise hacking's original obsessions with information freedom and access by creating tools that ensure cyberspace remains a place where information is freely and securely available. These hacktivists remain close to the hacking community but import concerns about globalisation and its effects on nation-states, particularly where nation-states take up censorship of the Internet. The inherent powers of cyberspace are here built up and relied upon, generating an informational politics that flows with virtuality.

6 *Men in the matrix: informational intimacy*

This chapter builds upon the previous chapter's analysis of digitally correct hacktivism and its privileging of network performance issues over more substantive political concerns. It re-examines the basic nature of hacking in order to shed light on male bias within hacking. It uses this analysis to explore some of the more politically conservative elements of computer-mediated activity in preparation for the following chapter's focus upon the politically radical nature of hacktivism.

7 *The dot.communist manifesto*

In contrast to the partially critical analysis of online political conservatism implied in Chapter 6, this chapter explicitly presents hacktivism as an imaginative, practical response to various theoretical calls for greater engagement with globalising tendencies and processes on their own terrain. Hacktivism is portrayed as an activity that reappropriates the increasingly commercial notion of *performance* and returns an element

of drama to the concept. Hacktivism is linked to such notions as *neo-tribes* to suggest that new forms of online co-operation and solidarity may represent the beginnings of a dot.communist manifesto.

With this outline of the book in mind, we can turn to exploring hacktivism. In the first case we must look at the origins of hacktivism and examine its roots. The remainder of this chapter will turn to hacking and its particular attitudes to networked technologies.

Hacking

Initially hacking was predicated upon the imaginative re-appropriation of technology's potential within countercultural and oppositional communities. By the mid-1990s, however, hacking's technological expertise had become, on the one hand, increasingly co-opted by the commercial mentality of the pre-dot.com-bust Internet 'industries' and, on the other hand, was equated largely with illicit, illegal or unwanted computer intrusion (what hackers tended to call 'cracking'). Allowing for disputes over exact times and terminology, hacktivism began at this point, arguably coinciding with the lowest point of hacking's originally uncontested countercultural status.

By the mid-1990s it had become harder to see hacking as countercultural or underground as the Internet and personal computer revolution swept first across the developed world and then the globe in an increasingly commercial format. Expanding computer companies hired computer technicians in their thousands, effectively both creating and absorbing the type of computer-trained individuals who previously might have been found only in hacking subcultures. Hacking and hackers had become integral to multi-million dollar businesses; the microserfs had arrived. At the same time, in popular view, hacking gained its overwhelmingly negative association with malicious computer intrusion. The media's interpretation of the word 'hacker' became that of someone who illicitly, even maliciously, took over someone else's computer. The Duke of Edinburgh had his mailbox opened by a hacker, thousands of people's credit card details were downloaded and rumours of bank robberies conducted solely through electronic means were published. Hacking was now synonymous with the notion of someone who used their technical skills to commit computer crime. It is at this moment in hacking's history that hacktivism stirred.

In order to grasp fully this moment, we need first to outline briefly what a 'hack' is and then to introduce the six broad stages hacking has been through before the advent of what we shall term its seventh generation: hacktivists. These accounts are not meant to be exhaustive but rather to delineate fully both hacktivism's roots in hacking and its key distinguishing differences (see Taylor 1999).

The basic element of hacking culture is, unsurprisingly, 'the hack', and, again unsurprisingly given the nature of the neologism, a full understanding of hacktivism requires some familiarity with the concept. The hack did, and still does in various quarters, refer to the performance of a neat programming trick. Despite its connotations of illicit computer break-ins, within hacking circles the hack is more widely defined as an attempt to make use of technology in an original, unorthodox and inventive way. The main bone of contention posed by the criminal forms of hacking (cracking) is the extent to which the ingenuity of the hack should be made subordinate to its legality. While this is a perennial debate, the hack is initially presented here in its widest sense in order to assess any potential commonality that may exist between all its illegal, mischievous and legitimately ingenious forms.

Turkle provides a conceptualisation of the main elements of hacking, which have been confirmed by Taylor's substantial qualitative study (Turkle 1984; Taylor 1999). She conflates the wider definition of illicit hacking with the general mentality of those who see hacking as the manipulation of any technology for unorthodox means. She refers to the hack as being: 'the Holy Grail. It is a concept which exists independently of the computer and can best be presented through an example using another technology complex enough to support its own version of hacking and hackers' (Turkle 1984: 232). The example she uses is that of phone-phreaking[1] and one of its pioneering adherents, John Draper, alias Captain Crunch. The hack, in this instance, refers to such technological stunts as having two phones on a table, talking into one and then hearing your voice in the other after a time-delay in which the original call has been routed around the world. All this is done illicitly and incurring no charge by the relevant telephone companies. Turkle interpreted this type of hack in the following manner:

> Appreciating what made the call around the world a great hack is an exercise in hacker aesthetics. It has the quality of [a] magician's gesture: a truly surprising result produced with ridiculously simple means. Equally important: Crunch had not simply stumbled on

> a curiosity. The trick worked because Crunch had acquired an impressive amount of expertise about the telephone system. That is what made the trick a great hack, otherwise it would have been a very minor one. Mastery is of the essence everywhere within hacker culture. Third, the expertise was acquired unofficially and at the expense of a big system. The hacker is a person outside the system who is never excluded by its rules.
>
> (Turkle 1984: 232)

The main characteristics of a hack are that it be simple, masterful and illicit. It is important to note that a key aspect of Turkle's analysis is that the essential attribute of a hack resides in the eclectic pragmatism with which hackers characteristically approach *any* technology. In this sense, hacking has been associated traditionally with such diverse activities as lock-picking and model railway maintenance (and the accompanying tinkering with gadgetry that this involves) (Levy 1984). Hackers themselves refer to the wide range of their potential targets:

> In my day to day life, I find myself hacking everything imaginable. I hack traffic lights, pay phones, answering machines, microwave ovens, VCRs, you name it, without even thinking twice. To me hacking is just changing the conditions over and over again until there's a different response. In today's mechanical world, the opportunities for this kind of experimentation are endless.
>
> (Kane 1989: 67–9)

The heterogeneous range of technological targets considered 'hackable' is described by R, a Dutch hacker, who argued that hacking should be defined so that it does not

> only pertain to computers but pertains to any field of technology. Like, if you haven't got a kettle to boil water with and you use your coffee machine to boil water with, then that in my mind is a hack. Because you're using the technology in a way that it's not supposed to be used. Now that also pertains to telephones, if you're going to use your telephone to do various things that aren't supposed to be done with a telephone, then that's a hack. If you are going to use your skills as a car mechanic to make your motor do things it's not supposed to be doing, then that's a hack. So, for me it's not only

> computers it's anything varying from locks, computers, telephones, magnetic cards, you name it.
>
> (R: Utrecht interview)[2]

The three elements Turkle identifies of mastery, simplicity and being illicit create, unsurprisingly, a thrill or what is often described as 'the kick' in creating a hack. The heterogeneity of hacking's targets also fuels the overall feeling of gaining a kick from satisfying the urge of technological curiosity:

> in the early days of say the uses of electricity and how to generate it, were first developed, I think Tesla and all the people who were playing with it then were as much hackers as most computer hackers are now, they are playing on the frontier of technology and all those hefty experiments were not only done for science, they were done because they got a kick out of it.
>
> (Gongrijp: Amsterdam interview)

The kick, thus gained, crucially depends upon an element of inventiveness, which serves to distinguish 'true' hacks from those that could be labelled as acts of *Nintendo perseverance*; that is hacks that exhibit large amounts of concentration and dedication, rather than ingenuity (Freedman and Mann 1997).

A further distinction is between original hacks and those that consist of pre-programmed attacks. The latter can be launched, rather than thought out, by what are pejoratively referred to as 'script-kiddies'. Methods of entry may become widely publicised by means of the various branches of the hacker grapevine, such as, electronic and paper-based specialist magazines, the several annual hacker conferences or even word of electronic-mouth. From such sources, hacking 'cook books' of pre-packaged instructions result. Those that predominantly, or exclusively, use such sources of information for the illicit use of a technology would be considered by purists only as hackers in the sense that they fulfil the main requirement of the pejorative definition of hacking; the illicit use of a technology. 'True' hackers, however, are keen to differentiate themselves from such people, by asserting their commitment to the hack roughly as described by Turkle. Using the example of phone-phreaking, Gongrijp illustrates this distinction between a technical and a 'true' hack:

> it depends on how you do it, the thing is that you've got your guys that think up these things, they consider the technological elements of a phone-booth, and they think, 'hey, wait a minute, if I do this, this could work', so as an experiment, they cut the wire and it works, now THEY'RE hackers. Okay, so it's been published, so Joe Bloggs reads this and says, 'hey, great, I have to phone my folks up in Australia', so he goes out, cuts the wire, makes phone calls, leaves it regardless. He's a stupid ignoramous, yeah? The second situation is another hacker reads this and thinks, 'hey, this is an idea, let's expand on this'. So what he does is go to a phone box, he cuts the wire, puts a magnetic switch in between, puts the magnetic switch up against the case, closes the door again and whenever he wants to make a free phone call, he puts a magnet on top, makes the wires disconnect, and he has a free phone call, goes away, takes the magnet away and everybody else has to pay. Now he's more of a hacker straight away, it's not a simple black and white thing.
>
> (Gongrijp: Utrecht interview)

The hack is the act hackers perform or the act they like to believe they perform; it is the simplest definition of what hacking means but it is also an idealisation. Hackers, like all of us, find it difficult to perform up to their ideal, and the communities that have sprung up around the hack have developed an array of cultural markers. Having established the nature of hacking's central, distinguishing pursuit, we need to turn to see how this has played out in hacking's history. The hack only exists when performed by hackers, and these hackers rarely, if ever, exist outside their relations to others who form the hacking community. If we can now see what it is that distinguishes hackers, we need to see how their idealisation of themselves has worked within collective relations between hackers. In addition, these communities have gone through significant changes and it is possible to identify up to six different, and frequently overlapping, communities whose common roots lie in their various shades of commitment to the hack. These communities mark the historical stages of the development of hacking; they are precursors to hacktivism and its explicit use of the hack for political purposes.

The hacking community in time and space

It is difficult to schematise the evolution of hacking into neat chronological periods. The following schema of seven generations or groupings

of hackers is therefore designed to provide a rough, but hopefully useful, overview of some of the changes that have emerged within the computer underground. It does not, however, adequately reflect the overlaps in time and ethical qualities that exist between the generations so that, for example, there are hackers from all generations who claim to share the central ethos of hacking's first generation. The provisional nature of the schema is further underlined by the fact that definitions of hacking activity are hotly contested both within and without the computer underground and there is considerable blurring of the boundaries between not only 'good' and 'bad' hacking but what constitutes the precise differences between hacking and hacktivism.

The first analyses of hackers identified three intersecting communities, all in some way applying the notion of the 'good hack' to various technological objects (adapted from Levy 1984).

1. *'Original' hackers*: these were the pioneering computer aficionados who emerged in the earliest days of computing. They consistently experimented with the capabilities of large mainframe computers at such US universities as MIT during the 1950s and 1960s.
2. *Hardware hackers*: these were the computer innovators who, beginning in the 1970s, played a key role in the personal computing revolution which served to widely disseminate and dramatically decentralise computing hardware.
3. *Software hackers*: these were innovators who focused more and more on elegant means of changing or creating programs to run on the hardware being hacked up, often by their friends and colleagues the hardware hackers.

Established from the late 1960s to the mid-1970s, these three originating communities intersected and overlapped, such that it would not be surprising if some people fitted all three definitions. Following the emergence of a distinct hacking community, focused mainly on effecting the ideal hack on computer technologies and made complex by interactions between the three just-defined hacker groupings, a number of other generations or sub-communities developed. Again, these should not be taken as completely separate entities but as developing networks of hackers, with individuals often having a place in several camps at once. The first three – original, hardware, software – can be thought of as the path-breaking or 'first generation' hackers who were, almost immediately, followed by new groups and forms of hacking.

As a 'second wave' developed, hackers simultaneously began to be recognised as a subculture. They began to receive significant media attention because, by appearing to be at home with new technologies, they stood out against a social norm of widespread fear of and a sense of disorientation in respect to the changes wrought by the purported information revolution. For example, while not being a de facto hacker organisation, John Perry Barlow and the Electronic Frontier Foundation (EFF) defended several hackers on the basis of the transgression of their civil liberties. The EFF expressed a broad hacker wish to avoid 'a neo-Luddite resentment of digital technology from which little good can come . . . there is a spreading sense of dislocation, and helplessness in the general presence of which no society can expect to remain healthy' (Barlow 1990). Hackers were prototypical denizens of the interstices between old social mores and the cultural implications of new technologies. Hacking was viewed as a postmodern countercultural response to the seemingly inevitable advance of new technology. Hackers were seen to constitute

> a conscious resistance to the domination but not the fact of technological encroachment into all realms of our social existence. The CU [computer underground] represents a reaction against modernism by offering an ironic response to the primacy of technocratic language, the incursion of computers into realms once considered private, the politics of the techno-society, and the sanctity of established civil and state authority. . . . It is this style of playful rebellion, irreverent subversion, and juxtaposition of fantasy with high-tech reality that impels us to interpret the computer underground as a postmodernist culture.
>
> (Meyer and Thomas 1990: 3–4)

This somewhat elevated status afforded to hackers really derives from the hardware and software hackers, whose targets and products began, for the first time, to touch people's everyday lives. The further development of hacking can be described through four inter-related and intersecting groupings.

4 *Hacker/cracker*: from the mid-1980s to the present day both these terms are used to describe a person who illicitly breaks into other people's computer systems, though not always for malicious reasons. The choice of the particular phrase used by a commentator depends

upon his or her perspective. *Hacker* tends to be used by those outside the computer underground, particularly the mass media. *Cracker* is used by those within technology-based groups (both the underground and its institutionally legitimate counterpart, the computer security industry) in an attempt to save the term hacker for its more noble reading of the ingenious manipulation of any technology.

5 *Microserfs*: in Douglas Coupland's novel, the eponymous *Microserfs* (1995) the phrase is used to describe computer programmers who, while exhibiting various aspects of the hacker subculture, nevertheless have become co-opted into the structure of large corporate entities such as Microsoft. Despite, or rather because of, their programming and technical skills, and despite the subjugated connotation of the phrase, microserfs became a stockholding part of the electronic bourgeoisie.

6 *Open source*: the ethic of creating the best possible software led to a broad community devoted to submitting software hacks openly that could then be improved by others. This community connected its concern for the individual hack to a disdain for 'bloated' commercial software and set in chain processes for producing free, elegant (hopefully) and constantly peer-reviewed software. The emergence of Linux as a serious operating system rival to Microsoft's Windows marks this community's appearance as a major player in computing development (Moody 2001).

7 *Hacktivists*: the mid-1990s marked the merging of hacking activity with an overt political stance.

The hacking community, in total, encompasses these seven different generations or groupings, with the possible exception of the founding hackers whose mainframes have gone the way of the diplodocus. Certainly, there are still hardware hackers and software hackers, while the microserfs, crackers and open source movement are all here to stay. To draw out the connection between hacking and politics, since this is the connection which distinguishes hacktivism from other innovative uses of computer technologies, it is now necessary to flesh out the nature of the hacking community. We start by looking briefly at the politics developed by both first and second generation hackers.

Early hacker politics

> These were the radical or guerilla hackers, who were destined to give the computer a dramatically new image and a political

> orientation it could never have gained from Big Blue [IBM] or any of its vassals in the mainstream of the industry. At their hands, information technology would make its closest approach to becoming an instrument of democratic politics.
>
> (Roszak 1986: 138)

In an era of what Roszak calls 'electronic populism', hackers were both instrumental and inspirational figures. This section traces the politicised aspects of the early forms of hacking to illustrate how the activity's inherent values have contributed to the rise of hacktivism through the political formation of the hacking community. As Roszak suggests, within hacking's first generation there were those with relatively radical political motivations who sought to bring computing power to the people. In practice, however, the endgame of such politics tended to be more obscure, given the more immediate and pressing concerns hackers had in obtaining access to systems with a complexity commensurate to their technical knowledge. The ethics of the early generations of hackers stressed the question of unlimited access to computing power and information. For many hackers, both the desire to hack and the attempt to make technology more democratic and accessible were complementary facets of the hacker agenda. This concern, at heart driven by the communities' fascination with performing hacks, was also a double-edged sword. It served to drive, on the one hand, innovative and at times radical views of society while, on the other hand, it pulled hackers toward a fascination with technologies that distanced them from social concerns.

To see some of the initial socially radical impulses of hacking we can start with the Yippies. In May 1971, Abbie Hoffman played a leading role in the establishment of an underground newsletter entitled the *Youth International Party Line* (YIPL). YIPL's first issue strenuously opposed the US government's decision to raise extra revenue for the Vietnam conflict through the taxing of telephone bills. It contained a form to be filled in and sent to the telephone company which stated: 'Because of the brutal and aggressive war the United States is conducting against Vietnam, the amount of federal excise, tax has been deducted from this bill. Paying the tax means helping to pay for outright atrocities, for the murder of innocent women and children' (cited in Bowcott and Hamilton 1990: 49–50). This social radicality did not avoid the lure of the technical hack for too long and in September 1973 YIPL changed its name to the Technological American Party (TAP). Its

newsletters provided a raft of detailed technical information, predominantly about how to phone-phreak (obtain free phone calls through the technical manipulation of the phone system) but also on a range of artefacts including burglar alarms, lock-picking, pirate radio and how to illegally alter gas and electric meters.

TAP ceased publication in 1984, but its mantle was taken up in the same year with the launch of the phone-phreak/hacker magazine *2600*, whose ideological stance was immediately indicated by the editor's choice of the pseudonym Emmanuel Goldstein (the name of the protagonist in George Orwell's *1984*). At a similar time in Europe (1981), a German hacker group called the Chaos Computer Club (CCC) was established which directly addressed the political implications of one of the original hacker slogans 'All information wants to be free'. This is a statement of its aims:

> A development into an 'information society' requires a new Human Right of worldwide free communication. The Chaos Club . . . claims a border-ignoring freedom of information which deals with the effects of technologies on human society and individuals. It supports the creation of knowledge and information in this respect.
> (cited in Bowcott and Hamilton 1990: 53)

Anti-corporatist values continued from the earliest hackers and were present in the second generation, as indicated by the names of some of the early start-up companies such as the Itty-Bitty Machine Company (a parody of IBM) and Kentucky Fried Computers (Bowcott and Hamilton 1990: 142). This spirit was not to last, however, and the initial socially liberating and wholesome (hence the choice of the apple brand) potential of such computers as the Apple II eventually succumbed to their status as commodities: 'all the bright possibilities seem so disturbingly compatible with corporate control and commercial exploitation' (Bowcott and Hamilton 1990: 155). The commodification of information proceeded apace with the huge growth in the computer industry, both in communications such as the Internet and other sectors such as gaming and business software. The countercultural hopes pinned upon the computer as a vehicle for anti-establishment values, remained unfulfilled as the spirit of Thomas Paine gave way to the electronic appetite of PacMan. The microserf and hacker/cracker communities exhibited ambivalent political credentials. The early hacker desire to promote free access to computers and information as a means of

improving a perceived democratic deficit within society at large, gave way, in time, to more selfish concerns. More attention was now given to access to computers for its own sake and the opportunities for commercial exploitation in an emerging information society.

Anti-authoritarian attitudes within hacking have accordingly been seen less as a form of youthful rebellion and more a sign of a frustrated desire to consume computing resources (Taylor 1999: 53–6), to the extent that one cultural commentator claimed: 'teenage hackers resemble an alienated shopping culture deprived of purchasing opportunities more than a terrorist network' (Ross 1991: 90). Such a pessimistic assessment is vividly developed in Douglas Coupland's 'factional' account of the hacker-type lifestyles of young programmers working at Microsoft's headquarters in Seattle. *Microserfs* identifies 'the first full-scale integration of the corporate realm into the private' (Coupland 1995: 211) with the supplying of shower facilities for workers who wanted to jog during their lunch break being followed by much more significant developments:

> In the 1980s [when] corporate integration punctured the *next* realm of corporate life invasion at 'campuses' like Microsoft and Apple – with the next level of intrusion being that borderline between work and life blurred to the point of unrecognizability. *Give us your entire life or we won't allow you to work on cool projects.* In the 1990s, corporations don't even hire people anymore. People become their own corporations. It was inevitable.
>
> (Coupland 1995: 211, emphasis in original)

The identification of microserfs as the fifth grouping of hackers alongside the sometimes malicious intrusions of crackers, marks the political nadir of the hacker community. Coupland and commentators such as Ross show that the co-option of hacker culture by Microsoft and other corporations has been so successful that corporate-friendly hacking characteristics, such as a programmer's obsession with software coding, had been harnessed to silicon capitalism (Ross 1991: 90). Against this tainting of hacking as either a too optimistic word for newly proletarianised software programming or as a playground for socially regressive crackers, two streams of hacking emerged in the 1990s, or in the case of open source re-emerged. The significance for hacking of the sixth grouping around the open source movement and the seventh in hacktivism is that they mark a retreat from such a pervasive intrusion

of commodified values into social life and a concomitant reassertion of more countercultural values.

The open source movement increasingly came into its own by re-establishing the ideal sense of the hack, and this in the hyper-commercialised environment of the Internet boom, pre-dot.com bust. Open source is a complex movement but at its heart its adherents aim to produce elegant pieces of software through the sharing of code to a community which is able to review and improve all hacks. The process is for someone to hack together a piece of code and then to release it to others, who improve, criticise and extend it. Nearly all such software is released free, often with the only licence restrictions being that the software cannot be distributed for profit and any improvements must be made available for others to examine and, in turn, improve (Moody 2001). The now famous Linux operating system, the widely used Apache web-server software and, more recently, the continued development of Netscape browsers in Mozilla are all, in one way or another, open source projects. While open source and its adherents had existed for many years, even perhaps having a claim to be the most direct descendent of the first generation of hackers, open source had also spent many years relevant only to those who were highly technically adept. The purity of its commitment to elegant software hacks often isolated it from vast areas of society which could never hope to use or understand the work of its adherents.

This all gradually changed during the 1990s and early twenty-first century as various open source projects revitalised the hacking community and gave it a relevance far greater than many could have imagined possible in the early 1990s. In particular, the ever-growing influence of Linux has helped to recapture the word hacker for those operating to the highest ideals of the hack. There is no room here to recount fully the story of open source (Moody 2001); it is the concomitant rise of a form of politically motivated Internet-based direct action to which we now turn. However, it is important to note the greater publicity and power of the open source movement with its radical commitment, often directly against the commodification of software, and that this occurred at the same time as the rise of hacktivism. Open source is, in this sense, a highly charged political movement, focusing on information freedom (something we will find in a different way articulated within hacktivism) but its politics often remain buried within lines of code. What was occurring simultaneously was the rise of a grouping of hackers whose politics could never be

ignored, overlooked or remain hidden in software code. It is the use of computers for direct actions that forms hacktivism as a distinct community within the hacking world.

Direct action hacktivism

> Given increasing computer prevalence and the fact our political opponents are among the most wired in the world, it is foolish to ignore the computer. Rather, it is important to turn our attention toward the computer, to understand it, and to transform it into an instrument of resistance. For the luddites of the world who resist computers, consider using computers to resist.
>
> (Wray 1998: 1)

Hacktivism has its roots in the swirling currents of hacking. For some fifty years now, technologists outside and inside legitimating institutions have played with computer technologies, trying to generate moments that are masterful, simple and illicit. Through the two generations of hacking and beyond the corporate recuperation of the microserfs and the underground self-obsession of cracking, hacktivism (alongside open source) has emerged to generate a hacktivist community, which this book outlines and explores.

However, there are two other contexts for hacktivism that need to be filled in before we explore more closely the direct actions that make up hacktivism. First, there is the general social and cultural context of the new information or networked society, which we will take up in Chapter 2 through the theme of viral times. Second, there is the history of popular protest and direct action that has been surprisingly joined to hacking in hacktivism (the subject of Chapter 3). Having completed hacktivism's background, we will then turn to detailed analyses of the two main types of direct actions hacktivists undertake: mass actions (Chapter 4) and digitally correct actions (Chapter 5). Finally, having established some of the main forms hacktivism takes, we will turn to its wider social and theoretical significance in Chapters 6, 7 and 8.

The apparently near-total dependence of contemporary national governments and global capitalism on complex communication networks has created room for a deliberately focused political agenda to be added to the pro-systems but anti-authoritarian tendencies that have always existed within hacking. The huge recent growth in the

number of such systems of communication networks has simultaneously increased the global commodification process and its vulnerability to dissenting forces. Hacktivism comes from hacking to threaten commodification and state control of information.

2 Viral times

Vulnerability, uncertainty and ethical ambiguity in the information age

Introduction: viral times

> The damage a successful supervirus could do is almost incalculable. 'It would be as if the Millennium Bug has actually done everything it was feared it could do,' said one London-based computer security expert last week. . . . One source close to British intelligence services says MI5 believes both the Basque separatist group ETA and the Kurdish terror organisations have drawn up plans aimed at crashing air traffic control systems through the use of hacking or viruses. Irish Republican terrorists are also thought to have considered similar methods. 'The super-virus is going to happen soon,' the source said. 'There are people out there with that intention. They may coincide their actions with protests against the International Monetary Fund and the World Trade Organisation, just to muddy the water.' Many of the organisations connected with anarchist violence in London number hackers in their ranks.
>
> (Burke and Paton 2000: 19)

The end of the twentieth century was a point of cumulation and recognition that the nature of society had changed. New social and cultural forms, variously described as informational, postmodern, postindustrial, complex, mobile and(/or) networked, had become established. Rather than arguing over whether something new had formed or not, social, political, economic and cultural commentators turned to analysing these forms. It is within these new social and cultural figures that hacktivism emerged; an information obsessed politics for informational times. This chapter will set out this broad social and cultural context. This should not be seen as an analysis of some economic 'base' that truly explains

hacktivism. Rather, we explore social, cultural, political and economic trends that both underpin and are formed by hacktivism.

Like all new forms, the social and cultural patterns of the information society do not completely destroy already existing models. Just as feudal aristocracies continued within industrial capitalism, altered to be sure but still existing, so with informational societies both old and new social forms coexist. The drive to profit through the exploitation of labour and the permanent revolution of economic production, so characteristic of industrial societies, remains within informational societies. This drive is reinvented and recreated, yet still exists both in its old industrial forms – such as the massive ship-wrecking yards of India – and in new informational exploitations – such as the huge call centres servicing first world countries with developing world labour.

One way of grasping these continuities and changes is to explore the twenty-first century through the metaphor of what we shall call *viral times*, because this metaphor provides a focus on aspects of information societies relevant to hacktivism. In this chapter we see the way in which, through their creation of conditions that allow information to act in viral-like ways, the complex communication systems of advanced capitalism create lacunae or dark spots where institutional control becomes increasingly difficult. In these dark lacunae hacktivism comes alive. We show how this has facilitated various media alarms and scare stories. These led to early hacker groups becoming stigmatised and marginalised (Taylor 1999) and they continue to colour the present-day public understanding of hacktivism. The notion of viral times, however, also serves to describe the general capitalist environment and its expansive growth, allows us to incorporate the discussion of hacking in Chapter 1, connect it to hacktivism and place all this within the framework of twenty-first-century societies.

Times of the virus

Modern technological times can be described as being increasingly vulnerable to a wide range of viral and other security-transgressing threats to social well-being. Western society has recently experienced such incidents as cyanide-laced Tylenol, the crash of computer systems controlling a major port, glass shards in baby food, benzyne in mineral water, a computer virus that continually rebooted any PC connected to the Internet, chemical poisoning on the Tokyo subway, the Millennium Bug and repeated publicity describing the potential for widespread

destruction to technological infrastructures from determined cyber-terrorists. A gap seems to have arisen between society's increasing dependence upon complexly networked communication technologies and its ability to maintain and control such technologies. The quote at the beginning of this chapter, taken from a broadsheet newspaper article entitled 'Coming to a Screen near You', indicates the way in which the press have dramatised society's vulnerability to computer security weaknesses by loosely grouping together such disparate phenomena as hacktivists, terrorists and both computer and biological viruses.

Perceptions of technological vulnerability exist within a wider social climate of insecurity that is fuelled by the contemporary prominence of a number of viral infections ranging from Aids and Ebola, to the scarcely detectable prions in BSE-infected meat. This is a culturally receptive environment for the concerns that have accompanied the advent of IT-based superviruses and which are reflected in the following sample of newspaper headlines:

> Love Bug Virus Creates Worldwide Chaos, *The Guardian*, 5 May 2000 (p. 1)
>
> New 'Love Bug' Viruses Threaten More Havoc, *The Independent*, 6 May 2000 (p. 12)
>
> Supervirus Threatens IT Meltdown, *The Observer*, 7 May 2000 (p. 2)
>
> Beware Stealthy 'Sons of Love Bug', *The Independent*, 21 May 2000 (p. 11).

Previously hackers, and now increasingly hacktivists, provided a scapegoat for this feeling of vulnerability as well as a target for fears of the unknown and 'the other' that had prospered during the Cold War and which are now recycled in terms of information warfare. Ironically, given the abstract nature of cyberspace, perceptions of what could be termed techno-vulnerability are often expressed with recourse to body-based forms of expression.

> The form and content of more lurid stories like *Time*'s infamous story, 'Invasion of the Data Snatches' (September 1988), fully displayed the continuity of the media scare with those historical fears about bodily invasion, individual and national, that are endemic to the paranoid style of American political culture [and] the paranoid, strategic mode of Defense Department rhetoric

> established during the Cold War. Each language repertoire is obsessed with hostile threats to bodily and technological immune systems; every event is a ballistic manoeuvre in the game of microbiological war, where the governing metaphors are indiscriminately drawn from cellular genetics and cybernetics alike.
>
> (Ross 1991: 76)

The breadth of such feelings of vulnerability exist across the political spectrum as illustrated by the following excerpt from an edited collection of articles devoted to providing a predominantly left-wing critique of the values inherent in 'microcybernetic consumerism'.

> The disturbing prospect is that opposition to the microcybernetic consumerist dictatorship will then find its only effective location deep underground, in the hands of zealots or fanatics who are content to destroy without bothering to dialogue. And microcybernetic technology is particularly vulnerable to just such a sort of opposition; as we have seen, hackers generally get caught only when they become brazen; and a determined band of computer nihilists, endowed with patience as well as skill, could even now be ensconced deep in the system, planting their bugs, worms and bombs.
>
> (Ravetz 1996: 52)

The usual levels of media hype that exist around any significant news story, in the case of hacking and hacktivism, have been compounded by the fact that these activities relate, in the eyes of the public, to the recondite area of computing. Exacerbating the process still further is the anonymity and the non-physical nature of these computer-mediated acts. The combination of these factors makes a heady brew for those wishing to sensationalise the issue, and elements of the early hacking community contributed their own brand of rhetoric to the mix with the adoption of colourfully threatening group names such as The Legion of Doom, Bad Ass Mother Fuckers and Toxic Shock.

Pre-existing societal feelings of technological vulnerability may be deliberately exaggerated by those with varying degrees of the hacker mentality, but such hype itself merely reflects more deep-rooted fears about technological change in general.

> The tie between information and action has been severed . . . we are glutted with information, drowning in information, we have no control over it, don't know what to do with it . . . we no longer

> have a coherent conception of ourselves, and our universe, and our relation to one another and our world. We no longer know, as the Middle Ages did, where we come from, and where we are going, or why. That is, we don't know what information is relevant, and what information is irrelevant to our lives . . . our defenses against information glut have broken down; our information immune system is inoperable. We don't know how to reduce it; we don't know how to use it. We suffer from a kind of cultural AIDS.
>
> (Postman 1990: 6)

In this context, the perceived problem with hackers (as we shall see in more detail in Chapter 6) is their over-identification with this informational flood. When their informational intimacy was prototypically path-breaking it was easier to view them, at worst, as mischievous pranksters and, at best, as real-life cyberpunk heroes. As society's dependence on information and its matrices grew, however, the question of how to treat such figures became much more vexed and loaded. This makes the viral nature of modern and postmodern times a significant factor initially for hackers and now for hacktivists.

Co-option and the otaku

> We're still not sure what happened to the pirate flag that once flew over Apple Computer's headquarters but we do know that what was once a nerd phenomenon backed by an idealistic belief in the freedom of information became the powerful aphrodisiac behind sexy initial public offerings. Che Guevara with stock options.
>
> (Hawn 1996: 2)

We have seen previously how hackers and their fictional representatives intimately identify and interact with both abstract communication systems and more prosaic artefacts. In addition, at a more metaphorical level, hackers have been accused of identifying too closely with the code of capitalism. Instead of using their technical proficiency in order to control the worst excesses of corporate-driven technological progress and redirecting it to more countercultural ends, they are instead charged with reinforcing its values as their ingenuity is co-opted by corporate concerns.

> the hacker cyberculture is not a dropout culture; its disaffiliation from a domestic parent culture is often manifest in activities that

> answer, directly or indirectly, to the legitimate needs of industrial R and D. For example, this hacker culture celebrates high productivity, maverick forms of creative work energy, and an obsessive identification with on-line endurance (and endorphin highs) – all qualities that are valorised by the entrepreneurial codes of silicon futurism. . . . The values of the white male outlaw are often those of the creative maverick universally prized by entrepreneurial or libertarian individualism . . . teenage hackers resemble an alienated shopping culture deprived of purchasing opportunities more than a terrorist network.
>
> (Ross 1991: 90)

The ambivalence of hackers' claims to be a countercultural force is mirrored in an inherent contradiction of cyberpunk literature. Cyberpunks are presented as anarchic opponents to established corporate power yet the genre is marked by the frequency with which the cyberpunk's human agency is subsumed to the greater ends of their corporate hirers. They fail frequently to redirect corporate power to more humane ends and this is perhaps due to the ultimate conflation of the desire of cyberpunks/hackers and of corporations for technological experimentation. Hackers and cyberpunks only wish to surf the wave of technological innovation, but corporations constantly seek to co-opt that desire for their own ends.

> There is . . . a tension in cyberpunk between the military industrial monster that produces technology and the sensibility of the technically skilled individual trained for the high tech machine. . . . Even the peaceful applications of these technologies can be subordinated to commercial imperatives abhorrent to the free thinking cyberpunk. There is a contradiction between the spirit of free enquiry and experiment and the need to keep corporate secrets and make a buck. Cyberpunk is a reflection of this contradiction, on the one hand it is a drop-out culture dedicated to pursuing the dream of freedom through appropriate technology. On the other it is a ready market for new gadgets and a training ground for hip new entrepreneurs with hi-tech toys to market.
>
> (Wark 1992: 3)

A dramatic example of both the alienating and co-opting aspects of hacker behaviour is provided by the phenomenon of the otaku who

have various hacker attributes. The phrase is used to describe a Japanese subculture whose members are noticeable by their preference for interacting with machines over people and their penchant for collecting, exchanging or hoarding what for non-otaku would seem trivial information, such as the exact make of socks worn by their favourite pop star. The most publicised otaku to date is Tsutomu Miyazaki who abducted, molested and mutilated in a serial killing spree four pre-teen Tokyo girls. The quality of alienation associated with otaku culture is inadvertantly indicated in one reaction to this case from an otaku seeking to distance Miyazaki from the movement.

> 'Miyazaki was not really even an otaku,' says Taku Hachiro, a 29-year-old otaku and author of Otaku Heaven. . . . 'If he was a real otaku he wouldn't have left the house and driven around looking for victims. That's just not otaku behavior. Because of his case, people still have a bad feeling about us. They shouldn't. They should realize that we are the future – more comfortable with things than people,' Hachiro said. 'That's definitely the direction we're heading as a society.'
>
> (Greenfeld 1993: 4)

Along with this alienated aspect of the otaku is their amenability to co-optation by corporate culture.

> 'The otaku are an underground (subculture), but they are not opposed to the system per se,' observed sociologist and University of Tokyo fellow Volker Grassmuck. . . . 'They change, manipulate and subvert ready-made products, but at the same time they are the apotheosis of consumerism and an ideal workforce for contemporary capitalism'. . . . 'Many of our best workers are what you might call otaku,' explained an ASCII corp. spokesman. 'We have over 2,000 employees in this office and more than 60 percent might call themselves otaku. You couldn't want more commitment.'
>
> (Greenfeld 1993: 3 and 4)

The over-willingness of the otaku to identify with the system represents a danger inherent in hacking's technology-based origins. We will explore the implications of this over-identification in more detail in terms of hacking's *parasitism* in Chapter 6 and throughout the rest of this book we shall see the ways in which hacktivism sets itself up in

opposition to it. More pressing to nation-states than the issue of possible over-identification with systems, however, is another worrying aspect of information flood: the issue of cyberterrorism.

Cyberterrorism

> In the hothouse atmosphere of media hype, our favorite nerds blossomed into mythic Hackers: a schizophrenic blend of dangerous criminal and geeky Robin Hood. Chalk it up to an increasingly bi-polar fear and fascination with the expanding computer culture.
>
> (Hawn 1996: 1)

The information age's general atmosphere of uncertainty is manifest in the ambiguous ethical status of some computing activities and society's vacillating responses to the maverick qualities that seem to be at a premium in the hard-to-adapt-to high-tech world of constant change. In the post-Cold War world new security fears increasingly centre around the threat posed by cyberterrorists yet the corollary also exists in the tacit pride felt in one's own electronic cognoscenti.

The Israeli hacker Ehud Tenebaum (aka the Analyser), for example, was accused of being responsible for the 'most systematic and organised attempt ever to penetrate the Pentagon's computer systems' (*The Guardian On-line*, 26 March 1998: 2). While Tenebaum was under house arrest in the Israeli town of Hod Hasharon, US authorities were seeking to use his apprehension as a deterrent to other hackers; to quote US attorney general Janet Reno: 'This arrest should send a message to would-be hackers all over the world that the United States will treat computer intrusions as serious crimes. We will work around the world and in the depths of cyberspace to investigate and prosecute those who attack computer networks' (*The Guardian On-line*, 26 March 1998: 2).

However, Israeli public figures took a much more conciliatory attitude to Tenebaum's activities and their implications: 'If there is a whiff of witch-hunt swirling around Washington, then in Israel Tenebaum's popularity seems to rise by the day. Prime minister Netanyahu's first comment on the affair was that the Analyser is "damn good", before quickly adding that he could be "very dangerous too"' (*The Guardian On-line*, 26 March 1998: 2). Tenebaum's lawyer further argued: '"It appears to me he brought benefit to the Pentagon . . . in essence he came and discovered the Pentagon's coding weaknesses", . . . says Zichroni, adding sardonically that the US authorities should maybe

pay Tenebaum for his services' (*The Guardian On-line*, 26 March 1998: 2, 3). Such comments may be interpreted as a lawyer's tongue-in-cheek defence of his client, but they have a deeper significance. For example, they point to the way in which the unethical aspects of Tenebaum's actions are blurred by their potential use to industry and national security. This is illustrated by the fact that he was subsequently asked to appear before the Knesset's committee for science and technology research and development. Just as previous figures in the hacking community have been stigmatised in order to provide a useful embodiment of media-sponsored fears of technology, so hacktivists are now likely to be targeted as scapegoats for fears that have found a fresh focus in the figure of the cyberterrorist. However hacktivists, because they generally propose anti-state agendas, are unlikely to be condoned by their own nations just because they have performed a good hack.

George Smith the editor of the online *Crypt Newsletter*, is mordant in his criticism of the weak investigative qualities consistently illustrated in the press's reporting of cybersecurity issues. He identifies the use of the phrase 'Electronic Pearl Harbour' (EPH) as a particularly good indicator of the likely inaccuracy of any article. He defines EPH as: 'A bromide popularised by Alvin Toffler-types, ex-Cold War generals, assorted corporate windbags and hack journalists. . . . EPH is meant to signify a nebulous electronic doom always looming over U.S. computer networks. . . . It has been seen thousands of times since its first sighting in 1993' (Smith undated website). EPH is a slogan for US 'info-warriors' whose most potent weapon: 'appears to be the burying of the enemy with floods of vague military philosophy, impenetrable jargon, cliches, scenarios, and aphorisms gathered from popular books attributed to Alvin Toffler, Tom Clancey, and Sun Tzu' (Smith 1999: 1). Smith claims that EPH articles tend to have consistently identifiable flaws which serve as accurate indicators of media hype in the field of computer security reporting, including:

> Obsession with hypotheses upon what might happen – not what has happened. Abuse of anonymous sourcing and slavish devotion to secrecy. All EPH stories usually contain a number of 'anonymoids' – from the Pentagon, the White House [etc.]. . . . Paranoid gossip . . . almost any country not United States can be portrayed as taking electronic aim at the American way of life . . . in a kind of modern techno-McCarthyism.
>
> (Smith 1999: 1)

Such faults in reporting and mild paranoia illustrate an increasingly apparent tension of the modern information age: the uneasy nature of the symbiotic relationship that exists between online and offline activity and the complex ethical issues that arise due to the growing adoption of virtual technologies. In the following report, for example, despite the death of an estimated 1,500 civilians from NATO bombing during the Kosovo conflict, US officials seem to place a disproportionate emphasis upon the legal implications of online activity compared to the real-world effects of their offline policies.

> The Pentagon refrained from unleashing an all-out computer attack on Serbia during the Kosovo conflict because the US was worried about the legal implications of launching the world's first 'cyber-war'. . . .The Pentagon's computer hackers had the theoretical capacity to plunder Mr Milosevic's bank accounts or bring Serbia's financial systems to a halt. But US defence officials said the plans were shelved for fear of committing war crimes.
>
> (*The Guardian*, 9 November 2000)

Similarly, the column inches devoted to the new threat of cyber-terrorism seem to be related more to a distorted perspective generated by media sensationalism than any considered evaluation of its importance in the wider scale of things, as is recognised by some commentators. For example, the email bombing by the Internet Black Tigers in 1998 which was directed against Sri Lankan embassies was, in Denning's view 'perhaps the closest thing to cyberterrorism that has occurred so far, but the damage caused by the flood of e-mail . . . pales in comparison to the deaths of 240 people from the physical bombings of the US embassies in Nairobi and Dar es Salaam in August of that year' (Denning 1999: 26). William Church, editor for the Centre for Infrastructural Warfare Studies (CIWARS) underlines this sentiment with his wry observation that: 'considering the routinely deadly attacks committed by the Tigers, if this type of activity distracts them from bombing and killing then CIWARS would like to encourage them, in the name of peace, to do more of this type of terrorist activity' (Denning 1999: 19).

The basic context of all the above examples of ethical and practical ambiguities and confusions resides in the emergence of informational social processes that are simultaneously abstract yet grounded in (some) very real effects. While hacker culture did indeed provide prototypical examples of how to engage with such abstractions, they tended to do

so more as an end in itself rather than merely as a means to an end. Hacktivism, in contrast, seeks to engage much more directly with the political implications of informational abstraction and, in keeping with the original notion of 'the hack', seeks to re-engineer systems in order to more fully confront the overarching institutions of twenty-first-century societies.

Virtual politics

> Virtual politics . . . should be founded on defying the neoliberal discourse of technology currently being fashioned by the virtual class. It is crucial to ensure that the political genealogy of technology, of virtual reality, of the reality of virtuality, is uncovered by numerous individuals, groups, classes, and new social movements. Indeed, without such excavations, the increasingly institutionalised neoliberal discourse of technology currently being promoted by the virtual class will rapidly become a source of immense social power. This is why concrete, corporeal, and ideological struggles over the nature and meaning of technology are so important in the realm of virtual politics.
>
> (Armitage 1999: 1, 4)

The analytical aftermath of the September 11 World Trade Center tragedy has shone the spotlight even more brightly upon the issue of global commodity culture and its discontents. For example, Benjamin Barber characterises the most significant element of globalisation as the growing conflict between two diametrically opposed, yet nevertheless, inimically related, fundamentalisms: extreme laissez-faire economics and Islamic zealotry, McWorld versus Jihad. 'McWorld' is the phrase Barber uses to describe the 'sterile cultural monism' (Barber 2001: xiii) that results from the unbridled market's insensitivity to the particularities of the local environments into which its commodities are disseminated. 'Jihad' is used to describe the 'raging cultural fundamentalism' (Barber 2001: xiii) that results from keenly felt dissatisfaction with the perceived negative cultural effects of the ubiquitous spread of commodity values.

While seemingly being antagonistic ideologies, Barber points out that both McWorld and Jihad rely upon the qualitatively new level of international interdependence that communication technologies have created and which arguably distinguishes debates about globalisation

from the previous subject area of international relations. Osama Bin Laden's heinous acts, for example, made use of the same media communication channels responsible for the spread of the US commodity values to which he objects so vehemently and destructively. In this respect, Bin Laden provides a particularly egregious example of the general technique of reverse engineering against itself a system to which you are opposed. The reverse engineering of global capital is a technique of the new hacktivist anti-corporate movement heavily influenced by its re-appropriation of pre-existing hacking techniques. However, while some conservative commentators have been quick to seize upon this remote similarity of approach to the terrorist attacks of 9/11 by labelling hacktivists as information-terrorists, we argue that hacktivism is an imaginative and defensible attempt to re-appropriate new information technologies for societies' benefit.

At the start of this section, Armitage argued for a 'virtual politics' to compensate for the way in which capitalist values have become inextricably insinuated within new information technologies; hacktivism can be seen as a response to this call. The key significance of hacktivism rests upon the way it confronts head-on Armitage's call for the paradoxical need to affirm the status of the corporeal within virtual politics while adding the constant concern of hackers to defend and extend freedom within incorporeal realms. Hacktivism takes politics infused with concerns about real-world conditions into the abstract heart of contemporary capitalism, while at the same time dragging hacking's traditional politics of information into new, unexpected alliances. Hacktivism is an attempted solution to the problem of carrying out effective political protest against a system that is expanding its global reach in increasingly immaterial forms.

Immaterial capital

> Constant revolutionizing of production, uninterrupted disturbance of all social relations, everlasting uncertainty and agitation, distinguish the bourgeois epoch from all earlier times. All fixed, fast-frozen relationships with their train of venerable ideas and opinions, are swept away, all new-formed ones become obsolete before they can ossify. All that is solid melts into air, all that is holy is profaned.
>
> (Marx and Engels 1972: 476)

In this quotation we can see how long ago Marx identified capitalism's tendency to abstract from material conditions and to plunge all social relations into constant revolution. This immaterial aspect of capitalism first emerged in the industrial revolution, and the spate of information-based technological innovations in recent years are embedded within the same process. What has led to claims that this new revolution is qualitatively different and merits specific attention, however, is the way new information technologies have become crucially and inextricably aligned with social trends. Capitalist values have penetrated into the social environment in unprecedented breadth and with levels of invasiveness that raise qualitatively new social issues. These include the threat to national cultures from the global spread of commodity values (the McWorld effect) and narrowly defeated attempts to exert commercial property rights over such basic material as human DNA. Marx's metaphorical description of capitalism's growing ephemerality is increasingly manifested in the immaterial commodity forms created by the conjunction of information technologies and capitalist markets.

A key component of these new socio-economies is still easily identified in Marxist terms. Marx delineated the origins of capitalism's particularly incorporeal form of value and argued that, in his analysis, the commodity form moves society's focus from use-value to exchange-value. An object's social worth is no longer its practical usefulness, but rather its abstract monetary value in the marketplace, its exchange-value. The significance of the new global information order is that while the initial process of abstraction analysed by Marx still tended to be embodied in physical objects, new forms of informational commodity value have taken the abstract, non-physical element of value to qualitatively new heights. The contrast between the traditional corporeally based form of capitalism and its new cyber-variant is vividly illustrated in the personal account of a computer programmer, Ellen Ullman, and her thoughts about what to do with some New York real estate she and her sister had inherited on her father's death:

> I imagined I really could turn this collection of mortar and bricks into a kind of bond, not a thing but an asset, that I might undo its very realness, convert it into something that will come to me in . . . dustless encrypted, anonymous, secure transactions. . . . It would be money freed of ancient violations and struggling tenants, distilled into a pure stream of bits traversing the continent at

> network speed, just a click away – hardly money at all, but some new measure of value: logical, dematerialized, clean
>
> (Ullman 1997: 61)

Ullman reflects the multilayered transformation captured in the notion of viral times. Not only are her thoughts an economic reflection on intensified profit taking, but they also respond to deep cultural anxieties about an existential weightlessness. The very word 'clean', tacked on at the end makes starkly clear the ethical questions of living implied here. It would be a deep mistake to see Marx's prophecies of immaterial values as purely economic, rather there are dimensions here that touch on all our daily lives and our understandings of what our worlds are and should be.

Capitalism's ability to operate simultaneously at both the material and immaterial level has been well documented. We need only gesture here to the current array of economic, cultural, political and sociological texts deeply engaged with notions such as mobilities, networks, flows and so on. All these, some in theoretical and some in detailed empirical ways, document the new society that has come about in the twenty-first century. Further, in these new e-times, business gurus have enthusiastically re-appropriated Marx's account of capitalism's iconoclastic effects while at the same time inverting its ethical and political message, swamping his critical approach with a tsunami of techno-enthusiasm. The continued relevance of Marx's poetically charged analysis and its simultaneous highlighting of capitalism's increasingly immaterial yet destructive form is reflected in such titles as: *The Empty Raincoat*, *The Weightless World*, *Living on Thin Air* and *Being Digital* (Handy 1995; Coyle 1999; Leadbetter 1999; Negroponte 1999). These techno-utopian tracts can even make the language of Marx seem pale, leading to the claim that they represent the 'deranged optimism' and 'corporate salivating' of 'business pornography' (Frank 2001).

The manifest destiny of viral societies

> Now capital has wings.
>
> (New York financier Robert A. Johnson cited in Greider 1997)

> For how many eons had insurmountable geography impeded man's business? Now the new American race had burst those shackles. Now it could couple its energies in one overarching corporation,

> one integrated instrument of production whose bounty might grow beyond thwarting.
>
> (Powers 1998: 91)

The phrase 'manifest destiny' was first coined by John L. O'Sullivan as editor of the *United States Magazine and Demographic Review*. He used the term to argue that opposition to the US takeover of Texas from Mexico failed to take into account that 'the fulfillment of our manifest destiny to overspread the continent allotted by Providence for the free development of our yearly multiplying millions' (cited in Brown 1998: 2). Manifest destiny is still a relevant concept when considering the present-day global supremacy of the US corporate model.

> One memorable incident, at a meeting of economic policy-makers from the largest industrialized countries that was held in Denver in June 1997, signaled the new mood. President Clinton and Larry Summers, then deputy secretary of the treasury seized the occasion to tell the world about the miraculous new American way. They handed out pairs of cowboy boots and proceeded to entertain the foreigners with what the *Financial Times* called a steady diet of 'effusive self-praise' spiced with occasional 'harsh words . . . for the rigidities of French and European markets'. Don your boots and down with France!
>
> (Frank 2001:7)

This account neatly portrays how the concept of the Wild West works as a trope for US attitudes to globalisation and reflects its dismissive view of those who believe in the importance of protecting cultural resources from the excesses of the free-trade model. The Wild West motif, and its implicit notion of virgin territory to be conquered, encapsulates the view that social and cultural space (like Ullman's previously cited notion of sterile, abstract space) should be subordinate to the requirements of departicularised, abstract capitalism.

This process can be compared to the biological propagation of the virus and is perhaps best encapsulated in the form of the franchise. It is interesting at this point to compare fictional and non-fictional accounts of this process. In the dystopian cyberpunk novel *Snow Crash*, for example, commercial growth is seen as a proliferating force.

> The franchise and the virus work in the same principle; what thrives in one place will thrive in another. You just have to find a

> sufficiently virulent business plan, condense it into a three-ring binder – its DNA – xerox it, and embed it in the fertile lining of a well-travelled highway, preferably one with a left-turn lane. Then the growth will expand until it runs up against its property lines.
>
> (Stephenson 1992: 178)

Stephenson, even with poetic licence, is close to Naomi Klein's similar account of the 'clustering' strategy employed by Starbucks:

> Starbucks' policy is drop 'clusters' of outlets already dotted with cafes and espresso bars. . . . Instead of opening a few stores in every city in the world, or even in North America, Starbucks waits until it can blitz an entire area and spread, to quote *Globe and Mail* columnist John Barber, 'like head lice through a kindergarten'.
>
> (Klein 2000: 136)

The Darwinian dystopia described in *Snow Crash* resonates with the real world views of such corporate giants as Ray A. Kroc, the founder of McDonald's, who once said of his business rivals, 'If they were drowning to death, I would put a hose in their mouth' (Schlosser 2001: 41). While this might be viewed as an excessive statement of capitalist competitiveness, evidence remains of the market's inherent insensitivity to local context. This was vividly highlighted by the curator of the Holocaust museum at Dachau who complained about McDonald's distributing leaflets in the car park: 'Welcome to Dachau', said the leaflets, 'and welcome to McDonalds' (Schlosser 2001: 233).

The branding element of advanced capitalism necessarily involves a strong commitment to homogeneity, succinctly described by Theodore Levitt: 'The global corporation operates with resolute constancy – at low relative cost – as if the entire world (or major regions of it) were a single entity; it sells the same things in the same way everywhere. . . . Ancient differences in national tastes or modes of doing business disappear' (cited in Klein 2000: 116). Much anti-globalisation protest objects to this homogenisation and the way in which it extends beyond the heavily branded products of global corporations into the wider urban environment through the formation of what Deleuze terms *espace quelconque* or 'any-space-whatever' (Deleuze 1989). A stark difference between hackers and hacktivists that we explore throughout this book relates to their sharply divergent attitudes to this process of abstraction.

Hackers remain obsessed with a wilful immersion in the abstract environment of computer code whereas hacktivists connect this immateriality to the importance of a social or political rationale, even when an action is co-ordinated in cyberspace or is about cyberspace.

New information technologies, and the e-boom (and the e-bust) premised upon them, are predicated upon departicularised, abstract spaces and flows and are therefore good vehicles for capitalism's abstracting tendencies. Computer code necessarily creates generic models of reality that in the words of progammer Ellen Ullman, which echo Deleuze's notion of *espace quelconque*: 'I begin to wonder if there isn't something in computer systems that is like a surburban development. Both take places – real, particular places – and turn them into anyplace' (Ullman 1997: 80). The lack of rootedness and materiality that these processes tend to create in contemporary businesses leads Ullman to complain of: 'The postmodern company as PC – a shell, a plastic cabinet. Let the people come and go; plug them in, then pull them out' (Ullman 1997: 129).

This section has explored an apparent intensification within capitalism of its tendencies to shift away from the particularities of the local and community in preference for abstract spaces. Klein calls this 'a race towards weightlessness'. We shall see in the next section and through the final part of this book that while hackers and their fictional counterparts, cyberpunks, have enjoyed the race, hacktivists have engaged much more directly with the social consequences of such abstract weightlessness. A defining feature of hacktivism is its willingness to confront the very real, grounded, political problems the race to weightlessness brings in its wake (Klein 2000).

E-commerce as empire

> Along with the global market and global circuits of production has emerged a global order, a new logic and structure of rule – in short, a new form of sovereignty. Empire is the political subject that effectively regulates these global exchanges, the sovereign power that governs the world.
>
> (Hardt and Negri 2000: xi)

The urgency of tone in much anti-globalisation literature and protest is due to a keen awareness of the transnational imperatives of global capitalism that have virally propagated beyond their former confines

and into social and cultural realms. Social and commercial boundaries have become increasingly blurred. Awareness of this has fuelled Hardt and Negri's reinterpretation of Foucault's concept of the *biopolitical*: 'In the postmodernization of the global economy, the creation of wealth tends ever more toward what we call biopolitical production, the production of social life itself, in which the economic, the political, and the cultural increasingly, overlap and invest one another' (Hardt and Negri 2000: xiii). An obvious downside of this situation for the critics of capitalism is the way in which more and more aspects of social life become subject to commercial pressures or even simply become commercial in and of themselves. However, simultaneously, the fact that such a process is occurring means that cultural life may become more political as these viral pressures provoke resistance and conflict.

Hardt and Negri, however, identify a potential problem for such resistance. They argue that the nature of global biopolitical forces is such that new forms of social activism are faced with the 'paradox of incommunicability' (Hardt and Negri 2000: 54). They define this paradox as the fact that, despite the rhetoric of the information age, effective communicating about local struggles is made more difficult by the tendency for such events to jump vertically into the global media's attention. A good example of this would be the Tiananmen Square protests which made a huge impact upon global media but achieved little in terms of the desired change within their own local environment. The paradoxical element of this situation stems from the fact that greater media coverage of an event may actually diminish the ability to communicate about political action in more local or horizontal terms.

In contrast to Hardt and Negri's rather pessimistic identification of this 'vertical jump', increasing theoretical attention has been given in recent years to the positive potential opened up by communication technologies for more horizontal modes of communication. In the classic Marxist perspective, whereby capitalism contains the seeds of its own downfall, the ever more efficient circulation of commodities and information also signals greater potential for strategies of resistance. Lash, for example, argues that: 'With the dominance of communication there is a politics of struggle around not accumulation but *circulation*. Manufacturing capitalism privileges production and accumulation, the network society privileges communication and circulation' (Lash 2002: 112). From this new network society, Dyer-Witheford sees new

possibilities for protest and the undermining of the status quo: 'the cyberspatial realm . . . increasingly provides a medium both for capitalist control and for the "circulation of struggles" ' (Dyer-Witheford 1999: 13). These writers imply that information capitalism may be faced by a new set of problems if not a web of its own making.

From networks to webs

> The terminals of the network society are static. The bonding, on the other hand, of web weavers with machines is nomadic. They form communities with machines, navigate in cultural worlds attached to machines. These spiders weave not networks, but webs, perhaps electronic webs, undermining and undercutting the networks. Networks need walls. Webs go around the walls, up the walls, hide in the nooks and crannies and corners of where the walls meet. . . . Networks are shiny, new, flawless. Spiders' webs in contrast, attach to abandoned rooms, to disused objects, to the ruins, the disused and discarded objects of capitalist production. Networks are cast more or less in stone, webs are weak, easily destroyed. Networks connect by a utilitarian logic, a logic of instrumental rationality. Webs are tactile, experiential rather than calculating, their reach more ontological than utilitarian.
>
> (Lash 2002: 127)

The search for oppositional potential in existing social conditions is a feature of much theoretical literature. De Certeau (1988) attempts to counter the pervasive domination of society by commodity values by arguing that models for resistant practices can be found in various day-to-day subversions and within the mode of consumption of everyday products. An example of this is the way in which the indigenous Indians of South America only superficially accepted the framework of the Catholic Church imposed upon them by the Spanish colonisers. Beneath their seeming acceptance these indigenous peoples in fact managed to develop various independent practices that kept their traditional values alive. Drawing upon such examples, De Certeau seeks to promote new forms of resistance to the homogeneity and commodification that otherwise prevails within the market system and which can be seen in terms of an overarching social matrix that contains within it digital matrices:

> We witness the advent of number. It comes with democracy, the large city, administrations, cybernetics. It is a flexible and continuous mass, woven tight like a fabric with neither rips nor darned patches, a multitude of quantified heroes who lose names and faces as they become the ciphered river of the streets, a mobile language of computations and rationalities that belong to no one.
>
> (De Certeau 1988: v)

De Certeau's description identifies the all-encompassing and circumscribing nature of such a social matrix and the numerate mentality it relies upon is obviously greatly facilitated with the advent of binary-based digital systems.

While De Certeau talks in terms of a cybernetic 'fabric with neither rips nor darned patches', Lash uses similar language, referring in the quotation at the beginning of this section to the 'flawless' nature of utilitarian networks predicated upon instrumental reason. Again, in keeping with the notion of capitalism containing the seeds of its own destruction, critical social resistance can stem from such utilitarian networks. Owing much to Lefebvre's detailed account of the need to reconceptualise space for more autonomous non-capitalist purposes, both Lash and Klein develop the image of the protest web opposed to the instrumental and 'shiny' image of the network (Lefebvre 1991; Klein 2000; Lash 2002). Klein, for example, explicitly develops the comparison of anti-corporate opposition to web-making spiders:

> the image strikes me as a fitting one for this Web-age global activism. Logos, by the force of ubiquity, have become the closest thing we have to an international language, recognized and understood in many more places than English. Activists are now free to swing off this web of logos like spy/spiders – trading information about labor practices, chemical spills, animal cruelty and unethical marketing around the world.
>
> (Klein 2000: xx)

In keeping with what we have previously seen as hacking's penchant for re-engineering objects and systems against their initial purposes, Klein's notion of a global web for the better transmission of oppositional practices provides the basis of a strategy to deal with capitalism's confusingly immaterial iconoclasm. It also resonates with Dyer-Witheford's call for anti-capitalist groups to mimic the nomadic

flows of capital within the 'global-webs' of commerce (Dyer-Witheford 1999: 143).

This call for a re-appropriation of the global web is increasingly common. Hardt and Negri, for example, forcefully argue that the circulations and flows of global capital need to be counter-populated with the counter-flows of 'the global multitude' (Hardt and Negri 2000: 46). They also use language resonant of the previous quotation from the novel *Snow Crash* and its comparison between corporate growth and viral propagation: 'Rather than thinking of the struggles as relating to one another like links in a chain, it might be better to conceive of them as communicating like a virus that modulates its form to find in each context an adequate host' (Hardt and Negri 2000: 51). Hacktivists can be seen to be part of this 'counter-populating' of 'the global multitude'.

Conclusion

Hacktivists are the marriage of the spirit of the hack and the spirit of protest in the context of viral times. We have explored the past of hacking, we have introduced the metaphoric realities of viral socio-cultural formations, and to complete the context for the emergence of hacktivism we need to turn to popular political activism and its structures as they existed towards the end of the twentieth century. Indeed, in the preceding few pages it has been difficult to keep protest out. We shall find here, centrally, the emergence of an ill-named anti-globalisation movement, whose methods can easily be described as viral and whose targets are often the immateriality, the virus-like nature, of millennial socio-economies.

> We are trapped in a reality constructed by information – mostly, the particular kind of information that is constituted by images. Our existence, both in its routine and more dramatic moments, is created by information just as it depends on it. . . . A society that uses information as its vital resource alters the constitutive structure of experience. . . . The accelerated pace of change, the multiplicity of roles assumed by the individual, the deluge of messages that wash over us expand our cognitive and affective experience to an extent that is unprecedented in human history. . . .The self is no longer firmly pinned to a stable identity; it wavers, staggers, and may crumble.
>
> (Melucci 1996: 1–3)

Melucci places his finger on the centrality of information in our societies. This constant flux and revision touches us in our economic structures – the commodity form – and our personal subjectivities – the selves that waver. Viral societies can be called viral because information acts like a virus and a virus, whether computer or biological, is a form of information. Viral times calls for viral selves. We shall begin to see hacktivists as some of the most self-assured and active of these selves.

3 Hacktivism and the history of protest

Hacktivism in radical protest

At the last minute the Electrohippies mounted an online protest against the World Trade Organisation meeting in 2001 in Doha. They had been moving away from protests against globalisation to concentrate on protesting against the 'war on terrorism' but in response to requests for an online demonstration, felt by many to be particularly important as being physically present in Doha was difficult, they developed an automated means of sending protest emails. To participate in the online demonstration, protesters could visit an ehippies webpage, click on the particular organisation(s) they wished to write to and then approve the auto-generated email. We will discuss in greater length both the Electrohippies Collective and this particular type of protest, but this example allows us to begin with hacktivism and to see perhaps the key context for hacktivism of protest in the twenty-first century, in the ehippies' target: the World Trade Organisation (WTO).

The WTO is one of a number of international bodies that oversee and organise worldwide economic systems. Other such bodies include the World Bank and the International Monetary Fund (IMF). In addition to these organisations, there are a number of regular inter-governmental conferences that contribute to the organisation of international finance and commerce, such as the meetings of the seven (or eight) largest economies in the world known as the G8. In the late twentieth century, these agencies participated in a reconstruction of global commerce in ways that implemented – variably and not without problem and contradiction – a neo-liberal economic regime. Here are some of the organisers and promoters of viral times.

This neo-liberal, as it is generally known, regime can be thought of most simply as an attempt to implement worldwide a restructuring

of economics that favours free trade for corporations over either collectively organised actors – such as trade unions – or state institutions and state-sponsored programmes – such as national health bodies or government interventions into economic processes. The claimed worldwide benefit of this would be a rise in economic activity which would, in turn, lead to increased corporate profits and greater economic health that would fuel higher standards of living. The opponents of this programme saw its effects rather differently.

> Neo-liberalism, the doctrine that makes it possible for stupidity and cynicism to govern in diverse parts of the earth, does not allow participation other than to hold on by disappearing. 'Die as a social group, as a culture, and above all as a resistance. Then you can be part of modernity,' say the great capitalists, from their seats of government, to the indigenous campesinos. These indigenous people with their rebellion, their defiance, and their resistance irritate the modernizing logic of neomercantilism. It's irritated by the anachronism of their existence within the economic and political project of globalization, a project that soon discovers that poor people, that people in opposition – which is to say the majority of the population – are obstacles.
>
> (Marcos 2000: 280–2)

Subcomandante Insurgente Marcos is the leader of the military wing of the indigenous people's uprising in Mexico, most often referred to as the Zapatistas. This uprising became public, through a Zapatista military occupation of four towns in southern Mexico, on the day the North American Free Trade Agreement (NAFTA) came into effect. This agreement bound Canada, Mexico and the United States together into a free trade area. The virus of neo-liberalism was being embedded in social life in Mexico through this agreement. It brought viral times seemingly unstoppably to Mexico. But then, in reaction, the Zapatistas began to fight against this type of society.

What the previous chapter called viral times was carried to the jungles of Mexico through NAFTA, though the terms globalisation and neo-liberalism are more commonly employed. We can now turn to the self-activity of groups protesting against neo-liberal virality to see the final, key context for hacktivism. This is a context that is most commonly, though misleadingly, called the 'anti-globalisation movement'. It is a misleading name because the movement is not anti-globalisation

but anti-neo-liberal-globalisation. This movement, building upon the socialist tradition of Internationalism, in fact favours various forms of globalisation such as cheaper, global communication that allows trade unions to communicate or campaigns to be co-ordinated. What this movement is opposed to is the particular economic globalisation driven by such organisations as the WTO, IMF or the G8. Unfortunately, the movement is stuck with its name, however inappropriate, and from hereon will be referred to as the anti-globalisation movement.

It is this anti-globalisation movement that is the main political context within which hacktivism has emerged. This chapter will trace the emergence of this movement, connecting it to its history and outlining its main constituent parts. Although it should be kept in mind that these were not the only radical politics going on in the world at the time hacktivism emerged nor are they the only politics which have affected hacktivism. Where hacktivism is touched by a politics that is not clearly part of the anti-globalisation movement – for example, the Italian-based hacktivists Netstrike launched an online action protesting against the death penalty in Texas – then this politics will usually be coloured or framed by anti-globalisation politics. For example, the rationale for the Netstrike action highlighted the disproportionate number of people from non-white ethnic groups who suffered the death penalty and explained this with reference to racisms heightened by neo-liberal economic reforms. The anti-globalisation movement and hacktivism have emerged, struggled, failed and won together. In the overarching context of viral times, and born both from hacking and from the anti-globalisation movement of the twenty-first century, hacktivism is perhaps the first, widespread social and political movement of the new millennium.

Social movements old and new: the hinge of the 1970s

Before we consider the anti-globalisation movement of the late 1990s and early 2000s, we will sketch in briefly a slightly broader context for non-institutionalised political conflict. This will note the emergence of many different social movements as the focus of radical political action following the 1960s, as well as trace the different paths of protest in relation to globalisation in the developed, Western or Northern world and the developing, underdeveloped or Southern world.[1] The key moment in these stories is a transition in the nature of radical politics that mirrors a transition in the nature of society. This transition, from

the 1960s to 1990s, can be seen in many aspects of society: from welfare state to privatised state; from imperialism to post-colonialism; from letters to email; from broadcasting to narrowcasting; and in the field of resistance to oppression (and crucially for this story), from working-class revolution to new social movements. This transition from one type of society to another at the end of the twentieth century has been touched on already in the outline of viral times and its association with immaterial capitalism. The prior form of capitalist society, most broadly characterised as industrial capitalism, also developed or included a characteristic radical politics.

At its outset, industrialisation was riven by a number of social struggles: most particularly, the suffragette or first wave feminist movement, the anti-slavery movement and the working-class or labour movement. Industrial society's history is then marked perhaps most dominantly by the series of communist revolutions and near-revolutions that seemed to threaten the survival of capitalism itself, alongside the gradually attained legitimacy of less radical labour politics in parliamentary labour parties and trade unions. The Bolshevik Revolution in Russia and the Chinese Communist Party's accession to power mark most powerfully a period in which it seemed possible – all too possible ruling elites seemed to believe – that the fundamental economic, political and cultural structures of developed societies could be transformed utterly. The near-insurrection in Germany, including successful insurrections in parts of Germany, just after the First World War and the general strike in the United Kingdom seem the most dramatic examples of times when a major, industrialised country seemed to teeter on the brink of a communist transformation. Less spectacular but often equally bitter struggles burst into view between the two world wars in nearly all the western nations. The Great Depression heightened the sense of impending doom for capitalism and the rise of such extreme doctrines and social systems as fascist Germany was welcomed in many so-called 'democratic liberal' nations as an answer to and bulwark against communism (Hobsbawm 1988, 1989, 1995).

As the story is now often told, during the Second World War many capitalist countries developed a corporate approach to management of their politics, cultures and economies. The lesson of state-managed wartime economies was applied to the problem of controlling the transgressive potential of the working class, and led to the development of a welfare state which looked after the interests of not just the rich. This development, not just a ruling-class 'trick' but a compromise based

on working-class struggle, meant diminishing class struggle through its institutionalisation and management. Trade unions negotiated with employers, increasingly overseen by state agencies whose aim was to ensure the future of capitalism by ensuring that working-class revolt was blunted. Though undoubtedly an idealised view, this story captures much of how working class conflict was perceived in many capitalist countries as the central economic issue.

At the same time as this political settlement, which placed control of class antagonisms as its central principle, the Cold War made an opposition between communism and capitalism the central geo-political divide. Around the world, all political struggles began to be perceived as moments in the grand chess game between the Soviet Union and the United States, each nation symbolising a particular political, cultural and economic form. The effect was to place class as the central political problem. This can be seen in, for example, struggles against colonialism which were often structured by perceptions of their place in the geo-political game. Would a post-revolutionary government be communist? Was each revolution a communist revolution, no matter what it claimed to be? The interventions of the US/Soviet superpowers and their allies into a colonised nation would often be determined by the current state of the Cold War. In addition, many anti-colonial movements involved Marxist elements, often as core parts of their struggle. The obvious example here is the Cuban revolution, which involved significant nationalist elements that, in the post-revolutionary phase and under severe pressure from the United States while also benefiting from support from the Soviet Union, were minimised during the creation of a socialist state. All these struggles tended to re-emphasise the role of class in politics both locally and worldwide.

At the same time, a further subsidiary factor emphasised the centrality of class relations to radical politics. The success of the Soviet Union in the Second World War, along with the strong role some communist parties played in resistance to Nazism, particularly the role the French Communist Party was believed to have played, led many intellectuals into an association with Marxism. This association was accompanied by a blindness to the failures of Eastern bloc social systems, particularly the carceral network of the Gulags. The symbolic figure here is Jean-Paul Sartre, who shifted publicly and volubly from a philosophical existentialism to an activist Marxism (though of his own interpretation) during the 1950s in France, but he was not the only such figure. For a period Marxism played a central role in intellectual life, a role that is

still felt today and was not particularly loosened until the 1970s and later. The effect of this was to make class relations, and in particular radical Marxist interpretations of class, central to most socially engaged intellectual life.

Taken together we can see the post-Second World War period as a time in which class politics emerged ever more clearly and strongly as the central framework for all political struggles.This does not mean that all politics in this period is reducible to class, but that all politics developed within the context of class and had to take account of class by defining itself in relation to labour/capital relations and the geopolitical opposition between the United States and the USSR. However, by the end of the 1960s, a major shift was taking place in radical popular politics. This was expressed in both the emergence of many new movements and a final paroxysm of radical Marxism. At the activist level, by the 1970s movements had emerged and continued to emerge that did not seem easily reducible to class and which actively resisted and questioned any such reduction. Second wave feminism, gay and lesbian struggles, civil rights struggles (in several places around the world, such as the famed US civil rights movement but also in Northern Ireland and elsewhere), ecological struggles, anti-racist and black power struggles and more, all created environments where the central political problem seemed not necessarily to be class. At the same time, many activists felt the convulsions, particularly of 1968, confirmed the importance of class struggle, especially when such struggles were freed from the dead hands of Soviet influenced communist parties and set about inventing renewed forms of Marxism. The nearness of revolution seemed to many to confirm Marxism and the necessity of heightened class struggle. However, this can now be seen, in retrospect, as the last paroxysm of Marxism. Not that Marxism disappeared, but that its dominance of radical conceptions and organising of class relations and its part in articulating labour/capital as the central political framework began to unravel. Intellectually and politically, by the 1970s the framework for radical, transgressive, non-institutionalised politics was significantly changing. Alain Touraine remembers that the conception of 'social movements' emerged in this context.

> The idea of social movement was conceived, at least in my mind, in opposition to the traditional concept of class conflict. Not opposition in the sense of being reformist. Instead, when we speak about class conflict we refer, basically, to a process of capitalist

> development or a process of social and economic crisis in objective terms. When we began speaking, a long time ago now, about social movements, we tried to elaborate a new approach and to pass on the actors' side.
>
> (Touraine 2002: 89)

Increasingly, it was no longer possible simply to apply Marxism, even in its renovated forms, to the struggles that emerged as the 1970s progressed. This should not be understood as a sudden divide but as a process in which many contradictory elements were felt. For example, at a theoretical level one of the most influential currents during the 1970s was Althusserian Marxism, which was an explicit attempt to rediscover the scientific Marx. This theoretical tradition held great influence in its time but now is often both dismissed as being incorrect (despite Althusser's importance to current influential thinkers such as Foucault) and as evidence of the final failure of radical Marxism. Similar attempts were made to connect Marxism to other increasingly influential theories and movements. Two instances here were the efforts to develop a Freudo-Marxism that tried to integrate class struggle and psychoanalysis and the emergence of socialist-feminism that sought to integrate feminism, actively and theoretically, with labour/capital relations (Turkle 1978; Rowbotham *et al*. 1979). All these manoeuvres were part of this final outburst of Marxist thought as the dominant intellectual and activist framework for radical politics.

As each of these concerns reached impasses or were rejected – whether this was the hyper-Marxism of post-1968 French Maoism or the failures to connect radical movements to labour institutions – it became apparent that a new framework of radical politics was coming into existence. This framework integrated the insight at both intellectual and practical levels that each particular movement had to develop its own insights and actions. Social movements from an activist perspective became self-defining. It was no longer possible to assume that a new form of Marxism or, more broadly, a class politics would capture the essential struggles of women, black people, the colonised, different sexualities, greens or any future, as yet undefined, movement. Indeed, often the identification by class politics of the enemy to be a socio-economically defined ruling class meant misunderstanding the oppressors identified by new movements. In the newly emerging struggles those who were identified as benefiting through domination were defined often not as the ruling class but men, white people, colonisers and imperialists, compulsory

heterosexuality and over-developers and so on. At the outset two things need to be understood about this newly emerging framework.

First, the new framework is based on the coexistence of many different movements, each of which engages and defines a form of radical struggle. This multiplicity of movements forms the practical and intellectual horizon of radical politics. Second, politics that do emerge must engage with or define themselves in and against this horizon of a multiplicity of struggles. It is not the case that labour politics in general or Marxist-inspired politics in particular disappear. Rather Marxist movements, ideologies or struggles become one among many others. This is important because the 1980s and 1990s saw a dramatic increase in what many see as class struggles. The reaction to the perceived liberalisation of the 1960s and the perceived 'weight' of the corporate or welfare state led in the 1980s and 1990s to programmes of privatisation, cutbacks, valorisation of markets and so on; all of which have been known collectively as neo-liberalism. Whatever else these policies were, they were certainly part of a right-wing attempt to remould over-developed and global socio-economies in ways that served corporations and capital far more than unions and labour. Such notable struggles as the miners in Britain or the air traffic controllers in the United States marked a sharp change from the state overseeing stable bargains between labour and capital, even if the state leaned rather to capital's side, to the state championing capital's interests. Yet even such a clear class-based struggle, one extended through the 1980s and 1990s into a global programme of economic change discussed in Chapter 2, did not return class politics as the single framework for radicalism. Instead, it reaffirmed the necessity and relevance of class politics to a framework of many movements and struggles. These policies may seem relevant mainly to the Northern or overdeveloped world but they were also implemented on a worldwide basis. This can be seen in two ways.

First, the institutions of international economic governance, such as the International Monetary Fund (IMF), which had been set up as part of the post-Second World War attempt to manage capitalism by avoiding boom and bust, successfully began to insist on free market policies. Governments that received loans from the World Bank or aid from the IMF began to find – what were in the 1970s and 1980s called 'monetarist' and now tend to be called 'neo-liberal' – strings attached. Necessary loans would only be given if a government committed itself to reducing state intervention, reducing barriers to a 'free market' (in many cases this meant destroying trade unions or community organising

and opening up to imports) and aiming for greater growth as defined under capitalism. The programmes of monetarist or neo-liberal intervention attempted to write Reaganism and Thatcherism across the world.

Second, shifts in forms of production and culture, underwritten by key developments in information technologies, involved increasing globalisation: these are some of the concrete elements of viral times. Factories were broken down into their functional elements. This meant the elements of production processes that needed large quantities of labour could be shifted around the globe to countries with low wage costs and little labour organisation, usually away from overdeveloped nations. Many countries were persuaded to set up economic zones in which even the meagre labour protection laws of many underdeveloped countries were suspended. The 'four Asian Tigers' and Japan were highlighted as examples of countries that had begun their economic renaissance by taking on large factories using low-paid labour but had then transformed this fragile economic basis into dynamic developed economies. Such arguments have been heard less after the economic collapse of these countries but are still often used. There is also evidence that transnational corporations are increasingly developing ways of bypassing structures which ensure any benefits are gained by the hosting country. The arrival of the monetarism/neo-liberalism virus in the South and developing world has meant the undercutting of local and communal enterprises in favour of global ambitions. These have often led nations into serious debt problems, which further restrain their ability to create equitable social conditions and often, incredibly, further enrich Northern financial institutions.

In terms of culture, the development of widely enhanced global communication has led to a renewed form of cultural imperialism, in which particularly US media have come to dominate. Satellites, Internet, mobile phones and so on have all extended the reach of cultures around the world. This is a contradictory process and is certainly not one-way, as the size of Bollywood and as the ability of the Internet to be used to create 'local' places that reach globally both show. However, it remains the case that local cultures have increasingly come into contact with media produced and distributed around the world. This is as true of Hollywood films as it is of McDonald's food.

These thoughts outline the overall social and cultural context for radical politics in the period from the 1970s to the late 1990s. It was a period of transition in which the previously assumed centres of politics,

the previously dominant forms of struggle and ways of defining struggle, began to fall away to be replaced in both North and South. As we have indicated, the social context for this was in part the collapse of the corporate means of negotiating class conflict that was set up post-World War Two. Of course, the second context for this transition was the end of the Cold War and the collapse of 'really existing socialism' in Eastern Europe. This change contributed to the shift of class politics from the centre of radical politics by removing its institutional supports and further delegitimating radical class politics, even if the latter rejections are partly based on a triumphalist set of partial truths told about ex-socialist countries. The end of the Cold War does not completely end socialism and communism; for example Toni Negri, in conjunction first with Felix Guattari and later with Michael Hardt, has been calling for over a decade for a renewed communism for the new millennium (Guattari and Negri 1990; Hardt and Negri 2000). Such attempts to rehabilitate or reinvent such classic terms of class politics as socialism, revolution, class consciousness and so on, however, all suffer from what Stuart Hall notes is 'a problem of coming at the end of a language rather than the beginning: none of the words will work for you any longer!' (Bird and Jordan 1999: 203–4).

The social context for this shift in the frameworks of radical politics is largely set by the revision of the welfare state and the end of the Cold War which lead to the emergence of new global economic and political projects, and this shift poses numerous problems and opportunities. However, this context should not be understood as a determining context for protest because social movements are part of this change. As Doreen Massey argues:

> Surely it's not a question of the capital-labour settlement breaking down *and then* the other movements taking off. . . . Feminism, sexual politics and post-colonial struggles were part of what destabilised the old, all-too-comfortable, consensus. They were part of the *cause* of the breakdown not simply its effect.
>
> (Bird and Jordan 1999: 198)

Radical politics and social movements are intimately tied up within these shifts; they are both cause and caused by broad political, cultural and economic changes. We can now sketch in the movements that, in fact, developed within this pluralistic framework for radical politics. Here we need to break movements down into Northern and Southern

or overdeveloped nations and developing nations. While these categories are still overly broad they provide the introduction necessary to understand the emergence of the anti-globalisation movement, which provides the necessary context for the emergence of hacktivism. Finally, we need to discuss these separately from the emergence in the same times of reactionary movements. We will look briefly at these three in turn.

After the 1970s

In the North or overdeveloped nations there were roughly three waves of social movement activism since the 1970s. In the first, a number of widely influential social movements emerged, at the same time that Marxist-inspired groups and official trade unions began to decline in influence. The roll call here is familiar: second wave feminism, movements around sexualities (gay, lesbian, bisexual and transgender movement and the queer movement), black power and anti-racism and ecological struggles. These four seemed to many to be the inheritors of the left, perhaps along with the peace and anti-nuclear movement, but in fact they each reflect a political framework that included the left but was not determined by a left/right axis. The effects of all four were widespread though not unambiguous.

If it would be foolish to claim that any one of these movements was entirely responsible for changes in the social problems they address, it would be equally foolish to think that they had no effect. If we take feminism as an example, we can see it was engaged with changes in family status, with the position of women at work (especially equal opportunities and equal pay), the treatment of women by the welfare state, women's sexuality and more. The point is not that feminism was unilaterally successful and managed to impose conditions on men that redressed all imbalances of power. For instance, since the 1960s we have seen increasing numbers of women at work, but this can involve both a liberation, with some women having access to jobs they were previously denied, and a burden, with some women finding they are now in work and are still expected to carry the main child-rearing role. The same could be said for the other movements noted here, as well as the labour movement which all through this period continued to produce political moments. None of these have achieved 'victory', even if we could know what such a 'victory' might mean, yet all have achieved victories, suffered losses and, most importantly, participated in remaking the political landscape.

During the 1980s, these movements continued. Sometimes parts of them became embedded in institutional politics, for example in the role women have played in various political parties and governments. Sometimes they have continued generating a radical edge, for example in the way parts of the gay, lesbian, bisexual and transgender movement were radicalised in struggles around HIV/AIDs leading into the queer movement. Some believe these movements at times became reduced to a self-interested 'identity' politics that became obsessed with naming in place of 'real' political engagement, though this may have been most significant in the United States and even there perhaps mainly in US universities (Klein 2000; Starr 2000). At the same time, various labour struggles occurred, often as part of the monetarist or neo-liberal-inspired transformation of the corporate or welfare state. This period also saw a growth in the peace and anti-nuclear movement, especially as part of growing Cold War tensions. By the late 1980s, the ecology movement was drawing new strength, at times making unlikely alliances with new cultures of pleasure and party (McKay 1998).

During the early 1990s, these tendencies continued, though of course with national and regional variations. For example, in Italy the framework of Marxism retained greater power than, in particular, in the United States and, to an extent, the United Kingdom. In Italy social movements not based on class struggles were often integrated within or understood in relation to various forms of Marxism. In order to accommodate these struggles the concept of the 'social factory' emerged for some Italian Marxists. This represented an attempt to conceive of all life along the lines of the factory and in this way rendered Marxism relevant to all social struggles. The theoretical stretch needed to make such changes is obvious – can all social life really be understood as being modelled on the factory? – and suggests that even in Italy the hold and coherence of Marxist frameworks were weakening (Wright 2002).

As the 1990s progressed various changes occurred. The peace movement fell away somewhat with the collapse of the Cold War, the ecology movement gained strength, particularly in the United Kingdom within what has been called DiY culture, and other newer movements emerged, for example in the anti-sweatshop movement in the United States (McKay 1998; Jordan 2002). This latter movement came from the realisation that newly globalised production processes meant that the commodities people were buying in the North had been created utilising extremely poorly paid labour, in some cases virtually the equivalent of indentured or slave labour. Here the realisation was

dawning that struggles in the overdeveloped world could not be separated from the developing world. The ecology movement played a key role here; its constant investigation of the exploitation of the world's ecologies ensured a focus beyond the developed world. By the mid-1990s, a significant crossover of North and South led to the globalisation movement. First, we will consider two further factors of 1970s–1990s protest: activism in the South and reactionary activism.

In the South or developing world, struggles were generated at many levels. These can, perhaps, be split into three different types. Unlike the successive waves of Northern movements, these types do not refer to time but to types and spaces of struggle. The broad differences between North and South are captured by Corr when discussing squatting:

> Squatting in the United States revolves around political and social counterculture and the destitution of individual homeless persons in the midst of opulence. Squatting in the Third World is a logical reaction of whole classes of people to the concentration of land in the hands of the few.
>
> (Corr 1999: 39)

It is such differences that demand another approach to outlining popular struggles in the South. We should also be clear that these struggles are not necessarily restricted to the South; instead they are often articulated differently between North and South, as Corr claims in relation to squatting. The following categorisations should also not be understood as mutually exclusive, because groups often link to each other, but they attempt to capture the different archetypes of struggle. First, there are urban-based struggles, often connected to universities and student protests. Second, there are insurrectionary and guerrilla movements. Finally, there are indigenous peoples and peasants movements, particularly over land rights. As with previous outlines, these categories only provide the broadest, sketchiest introduction to radical political struggle in these regions, yet they also provide an adequate basis for understanding the forces that underpin the anti-globalisation movement.

Urban struggles, often linked closely to student struggles, occurred throughout the South. During the 1970s to 1990s, processes of urbanisation continued, even becoming heightened as more and more people were drawn from rural to urban areas. These processes often produced extremely impoverished areas of cities, within which some social movements would take root; squatters movements were an archetypal

form of protest. Though somewhat anomalous in other ways, the South African rent strike that began in September 1984 is one example. Here rent strikes were sparked by rent rises on government-owned homes in black townships of 25–88 per cent in the early 1980s. Though aiming at rent control and rent reduction these strikes also developed broader political aims, such as the recognition of traditional leadership at a local level, that challenged some institutions of apartheid. By 1988, 90 per cent of tenants had joined the strikes, developing a 'culture of nonpayment' that led to conflict with the post-apartheid African National Congress government of Nelson Mandela in 1997 (Corr 1999: 134–6). At the same time, other struggles emerged, often based or deriving strong support from universities. For example, students were prominent in the protests in Indonesia that led to the fall from power of President Abdurrahman Wahid. These protests focused on financial and political scandals associated with Wahid. They also continued a tradition of protest for political change that had faced severe repression under the long reign of President Suharto, had contributed to Suharto's fall and was not willing to ignore Wahid's perceived failure to reform authoritarian governance, reduce corruption and prosecute key Suharto beneficiaries. Such protests are often urban based, frequently leaning on strong youth and student support both for numbers in the street and the articulation of beliefs. The nature of these protests has shifted across different countries and different issues but the combination of urban, youth and student protest remained constant through the last quarter of the twentieth century. Such constancy is not clearly the case with the second strand of protest in the South.

The second area of protest in the South is insurrectionary protests, often conducted by armed guerrilla forces. This tradition of protest drew heart, tactics and ideas from such revolutionaries as Castro and Guevara in Cuba and Ho Chi Minh in Vietnam. The fundamental idea, often called Guevarism, was for a militant few to take to rural areas and from there build support for revolution through armed struggle (Guevara *et al*. 2002). Aiming at the seizure of state power, Che Guevara famously put these ideas into practice not only in Cuba but also in the Congo and Bolivia, where he met his death. Other guerrilla movements, not necessarily so closely allied to Marxist ideas as those that adopted Guevarism, have also emerged. Guerrillas in the Philippines have gained world attention by kidnapping and ransoming tourists, while guerrillas in Colombia have become the target of US anti-drug programmes and have helped create Colombia's internal warfare. These movements all