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MEDIA, WAR AND INFORMATION TECHNOLOGY

Christian Fuchs

Christian Fuchs interrogates the role of new information and communication technologies (ICTs) in recent transformations of capitalism – involving privatization, commodification and financialization – and, in particular, new forms of imperialism and empire. Adopting a Marxist view of technology as a profoundly contradictory phenomenon that simultaneously offers possibilities for both the powerful and the powerless, he assesses precisely how networked technologies have been incorporated into the structures of capitalism and contemporary warfare. He highlights an 'integrative' strategy in which ICTs are increasingly used to naturalize official perspectives of war (through, for example, the embedding of journalists) and also to mediatize war itself (through new military hardware which embeds communicative functions into surveillance and killing machines). Far from disappearing in an age of globalization, Fuchs argues that imperialism is re-asserting itself with the aid of networked technologies.

Lenin (1917) identified five characteristics of imperialism: economic concentration, the dominance of finance capital, the importance of capital export, the spatial stratification of the world as a result of corporate dominance and the political dimension of the spatial stratification of the world. This chapter argues that contemporary capitalism can be seen as a new form of imperialism marked by financialization, commodification, neoliberal privatization and the growth

of transnational corporations. Financialization matches Lenin's emphasis on finance capital's role in imperialism, transnational corporations are an expression of capital export, and neoliberalism is the newest form of the political and economic stratification of the world (see Fuchs, 2010a, 2010b). It is also important, however, to tackle the communicative dimension of the rise of the new imperialism (Fuchs 2010c). This chapter contributes to this task by analysing the role of media technologies, especially networked digital information and communication technologies (ICTs), in the context of theories of new imperialism and global capitalism.

Lenin wrote his key text on imperialism, *Imperialism*, the highest stage of capitalism (Lenin, 1917), in the face of the First World War. In it, he stressed the role of war between nation states as one, but not the only, aspect of imperialism.

Capitalism has grown into a world system of colonial oppression and of the financial strangulation of the overwhelming majority of the population of the world by a handful of 'advanced' countries. And this 'booty' is shared between two or three powerful world plunderers armed to the teeth (America, Great Britain, Japan), who are drawing the whole world into their war over the division of their booty. (Lenin, 1917: 28)

Lenin described the First World War as a 'war for the division of the world' (1917: 27) and argued that imperialism includes 'rivalry between a number of great powers in the striving for hegemony, i.e. for the conquest of territory, not so much directly for themselves, as to weaken the adversary and undermine his hegemony' (1917: 239). These great powers are not necessarily nation states but can also be military groups or corporations.

A notion of new imperialism that is grounded in Lenin's classic theory of imperialism shares with theories of empire, global capitalism and other concepts of new imperialism the insight that the global dimension of capital is a central characteristic of contemporary capitalism (see Callinicos, 2003a, 2003b, 2005, 2007; Hardt and Negri, 2000, 2004; Harvey, 2003, 2005; Panitch and Gindin, 2004, 2005; Robinson, 2004, 2007; Sklair, 2002; Wood, 2003a, 2003b; Zeller, 2004a, 2004b). My own approach is based on the assumption that theories of global capitalism, new imperialism and empire need to be grounded in critical social theory and in macroeconomic data that verify the theoretical assumptions (Fuchs, 2009, 2010a, 2010b).

New imperialism shows the characteristics of imperialism that Lenin described but takes on novel forms. Finance capital is now the dominant form of capital where insurance companies, pension funds, investment funds and new financial instruments play an important role on deregulated, volatile

financial markets that resulted in the global world economic crisis of 2008. Capital export is today far more important than in the period 1945–1975. The world economy is highly stratified: developed countries dominate capital exports and world trade although North America's importance in capital and commodity exports has decreased. Europe is today the most important actor in the import and export of capital and goods while China has become a crucial exporting country and an important location for FDI inflows. In this changing situation, military conflicts – including the emergence of transnational 'terror' groups like Al-Qaeda – shape the new imperialism in which informatization is just one tendency besides financialization and hyperindustrialization. The discussion and analysis of media and information should, therefore, be situated within the context of the new imperialism.

ICTs in New Imperialism Theory

The task of this section is to analyse the role that various theories of new imperialism assign to the media and ICTs. The analysed theories focus on at least one of the notions of new imperialism, empire, or global capitalism. What they have in common is that they argue that there is a worldwide system of economic exploitation, that this system is globally networked, and a multi-level class system (with class division and exploitation being organized on the local, national, regional and global level). In order to grasp how new imperialism thinkers conceptualize the role of the media and ICTs, I searched systematically for passages containing at least one of the key words 'media', 'medium', 'communications', 'information', 'technology', 'Internet', 'ICTs', 'IT' in significant publications.

First, there are approaches that see no relationship between capitalist development and ICTs/media. The latter are considered as rather unimportant factors in the analysis of capitalism. For example, there is not a single mention of either media or ICTs in the analysis by Leo Panitch and Sam Gindin (2004) of what they term 'American empire'. Second, there are approaches that stress that capitalist development has required and created the growth of the ICT sector because there was a need for new spheres of commodification and privatization and for increasing productivity and the speed of capital accumulation. ICTs are seen as the outcome of the development of global capitalism.

Sklair (2002), for example, focuses in his analysis of global capitalism on how capitalist globalization has transformed the media into more commercialized and commodified spheres: 'It is the capacity to commercialize and commodify all ideas and the products in which they adhere,

television programmes, advertisements, newsprint, books, tapes, CDs, videos, films, the Internet, and so on, that global capitalism strives to appropriate.' Habermas (1989) pointedly termed this 'the colonization of the lifeworld' (Sklair, 2002: 116).

Similarly, Robinson acknowledges the connection of globalization and ICTs. New communication technologies 'were "globalizing" in the sense that they allowed capital to "go global". New patterns of accumulation opened up by globalizing technologies both require and make possible economies of scale that are truly global and require a more generalized commodification of the world economy' (2004: 9).

In his opinion, the causal relation between ICTs and global capitalism takes on the form that the drive of capitalism to globalize and accumulate has brought about the need for the development of ICTs. So Robinson stresses that global capitalism was not caused by technological innovations and argues that the rise of ICTs 'has been caused by the drive, built into capitalism itself by competition and class struggle, to maximize profits by reducing labour and other "factor" costs' (2004: 21). The more general assumption behind this argument is that the 'technological effect is the effect of social forces' (2004: 102f.) and not their cause.

Third, there are approaches that stress that ICTs are a medium of the globalization and transformation of capitalism. So, for example, Wood (2003b: 135) says that 'the speed and extent of capital movements, especially those that depend on new information and communication technologies, have created something new' and the world has thereby become more interdependent. Wood does not give much focus to the media and ICTs and simply acknowledges in one sentence that ICTs have influenced the global extension and speed of capital accumulation.

Fourth, there are approaches that see ICTs and media as, on the one hand, as the result of the capitalist need for profit maximization and the development of commercialization, privatization and deregulation as central capitalist imperatives but, on the other hand, in the past decades also identify the transformative capacities of ICTs and media. The best examples are the approaches by Harvey and Hardt/Negri.

Harvey sees the rising importance of ICTs as a feature of the rise of a neoliberal capitalist regime: 'geographical expansion often entails investment in long-lived physical and social infrastructures (in transport and communications networks and education and research for example)' (2003: 88). Neo-liberalism and neoliberal globalization provide the contexts for the rise of ICTs that have resulted in the massive privatization and deregulation of communications so that they are no longer common goods, but private property. Indeed, this extends way beyond communications:

Public utilities of all kinds (water, telecommunications, transportation), social welfare provision (social housing, education, health care, pensions), public institutions (universities, research laboratories, prisons) and even warfare (as illustrated by the "army" of private contractors operating alongside the armed forces in Iraq) have all been privatized to some degree throughout the capitalist world and beyond (for example in China). (Harvey, 2005: 160)

But Harvey sees not only a causal effect of capitalist restructuration on ICTs, but also identifies a reciprocal impact. ICTs are, according to Harvey, a medium of time—space compression of capitalism, in the sense that ICTs bring about a transformation of capitalism.

For Hardt and Negri (2000, 2004, 2009), capitalist development requires ever-newer forms of production, control and exploitation that have brought about the rise of information technologies and knowledge work as dominant forms of production. Reflecting on how capitalism exploits and commodifies communication and knowledge, they see a dialectic at work here in the sense that the advancement of the exploitation and commodification of knowledge and communication has resulted in a new mode of production that is based on immaterial labour. Immaterial labour, they argue, is labour 'that creates immaterial products, such as knowledge, information, communication, a relationship, or an emotional response' (Hardt and Negri, 2004: 108).

Immaterial labour, however, could be highly co-operative and, with its immanent communist potentials, has the potential to question and threaten capitalist logic. It is the 'multitude' that produces knowledge in networks and is thus 'embedded in cooperative and communicative networks' (2004: xv). While they acknowledge the structural need for capitalism to bring about ever newer forms of production and technology (witness the rise of computers and the internet as well as the culture industry), the core of their argument is agency-oriented. The category of the multitude describes new forms of knowledge labour and struggle that produce communist potentials that go beyond capitalism and question its logic. For Hardt and Negri, immaterial labour is dialectical: exploited by capital but also a communist activity of co-operation of the multitude. The liberating aspect of immaterial labour is best summarized in Hardt's and Negri's formulation that 'immaterial labour thus seems to provide the potential for a kind of spontaneous and elementary communism' (2004: 294).

Both the approaches of Harvey and Hardt/Negri stress that financialization, neo-liberalism, privatization and commodification are aspects of capitalism that have brought about the growth of the ICT and media sector and have shaped this sector according to capitalist imperatives. The main difference

between them is that Harvey stresses the immanent development of the global development of capitalism whereas Hardt and Negri have a strong focus on elements that transcend capitalism. While the two approaches share the insight that ICTs in contemporary society are both media and outcome of capitalist development, Harvey focuses on the reproduction and development of capitalism while Hardt and Negri stress the explosive technological potentials that suggest the actuality of liberation.

Capitalist Development, ICT and Warfare

Perspectives that do not take into account an analysis of ICTs and the media in the development of capitalism ignore a fundamental dimension of human existence: humans not only have to eat and produce in order to exist, they also have to think, communicate and inform themselves in order to be able to manage their daily lives. Therefore each society has a communicative dimension and capitalist society needs to create means and relations of communication in order to be able to accumulate capital. Positions that only stress how capitalist processes of financializaton, privatization and commodification have formed the context for the emergence and diffusion of ICTs, fail to understand that technologies and communication are also part of the differentiation and development of social structures.

There is a risk here of taking a technologically deterministic position that reduces the development of society and the economy to technological factors alone and ignores the influence of other factors such as class structure, the distribution of wealth, ideology and world-views, education, and so on. Technology is an important dimension of human existence, but it is not the only dimension. Therefore its effects should neither be undernor overestimated. Technology is conditioned, not determined, by society, and vice versa. This means that societal conditions, interests and conflicts influence which technologies will emerge, but technology's effects are not predetermined because modern technologies are complex wholes of interacting parts that are to certain extents unpredictable (Perrow, 1999).

A critical theory of technology and society proposes a mutual shaping approach that argues that technological development interacts with societal contradictions. A critical theory of media and technology is based on dialectical reasoning that allows us to see the relationship between media and technology as multi-dimensional and complex: a specific technology has, for example, multiple potential effects on society and social systems that can co-exist or stand in contradiction to each other. Which potentials are realized is based on how society, interests, power structures and struggles shape the design and

usage of technology in multiple, and often contradictory, ways. As Marx put it (1867: 568f.):

machinery in itself shortens the hours of labour, but when employed by capital it lengthens them; since it lightens labour, but when employed by capital it heightens its intensity; since in itself it is a victory of man over the forces of nature but in the hands of capital it makes man the slave of those forces; since in itself it increases the wealth of the producers, but in the hands of capital it makes them into paupers.

The economic diffusion of ICT in the current era is related to the crisis of global Fordism. As a reaction to the relative decline in the rates of profit in the 1970s, computerization and automation were introduced in order to save labour costs and increase profitability and flexibility, to speed up production and to create new spheres of accumulation. ICTs are both media and result of the economic globalization of capitalism. On the one hand, they support the overcoming of communication over spatial and temporal distances, hence local processes are influenced by global ones and vice versa, but they are also facilitate the territorial restructuring of capitalism.

The generation of networks of production that are typical for transnational corporations has been made much easier by ICTs that are heavily implicated in the movements of restructuring that are crucial for capital. These restructuring processes can be characterized as designing a flexible, neo-liberal regime of accumulation that is based on processes of globalization, privatization, commodification and financialization. These four processes are the core of the new imperialistic mode of capitalism (Fuchs, 2010a, 2010b). The aim of the economic globalization of production is to save labour costs and fixed capital costs by outsourcing parts of production to those regions of the globe where the most capital-friendly investment conditions are available. This can result in an undermining and competitive lowering and deterioration of working conditions and social conditions. If there are falling profits, then capital tries to find new spheres of accumulation.

One way of doing this is where publicly owned goods and services are transformed into privately owned resources and where new spheres of commodity production and sale are created. The rise of ICTs is related to the privatization of telecommunications and the formation of new software, hardware and internet industries. Financialization means that stocks, shares and various kinds of derivatives are created that are traded on the stock market. The main aim is to achieve high short-term financial profits. According to Harvey (2005: 33): 'A wave of innovations occurred in financial services to produce not only far more sophisticated global interconnections but also new kinds of financial markets

based on securitization, derivatives, and all manner of futures trading. Neo-liberalization has meant, in short, the financialization of everything.'

The rise of the 'new media' industry in the 1990s was based on the heavy investment of finance capital. The problem with finance capital is that the financial market value of companies does not reflect the actual profits achieved in everyday production and commodity sales, but is partly based on the hope of future profits. The 'new economy' crisis in 2000 was caused by an explosion of the finance bubble that was created in this sector, i.e. a difference between financial market values and accumulated values.

Speculative ('fictive') capital that is detached from material production and constitutes fast, self-increasing, unstable ('bubble economy') global flows of capital is gaining importance. It is due to the fact that ICTs are able to dissolve temporal and spatial distances that corporations can flexibly manage production and make use of global interconnected flows of capital, technology, labour and information. Network organization is characteristic of a post-Fordist global capitalist economy composed of networks of firms, networks of suppliers and distributors, financial networks, strategic alliances, joint ventures and financial markets that are based on fast global flows of increasingly 'immaterial' speculative capital transmitted and manipulated digitally by making use of network technology.

ICTs make much easier the outsourcing, rationalization and decentralization of production, team work, the flexibilization of jobs and the flattening of organizational hierarchies. They have contributed to the shift of the employment sector from a focus on industrial jobs to service jobs. In most advanced countries the service sector today makes up two-thirds of total employment. The post-Fordist economy is a flexible regime of accumulation that is enabled by ICTs and based on a whole series of production trends that include: the outsourcing, decentralization and 'flexibilization' of production, lean management, just-in-time production, the flattening of internal hierarchies and growth of small organizational units, delegation of decision-making from upper hierarchical levels to lower ones, the rhetoric of participatory management, decentralization of organizational structures, team work, strategic alliances, innovation networks, semi-autonomous working groups, informatization, automation and rationalization.

Discussing ICTs as qualities of imperialist warfare should, therefore, be embedded into a discussion of the dialectic of technology and society. Many technological systems originated in a military context: the development of the computer was boosted by the decision of Allied Forces in the Second World War to develop powerful decryption and encryption technologies while the internet also originated in a military context, namely the attempt of the US in the 1960s to build a decentralized communication system that

would withstand a Soviet nuclear attack. Warfare is the original context for the emergence of computers and the internet as technological innovations and their broader usage has emerged in the light of the crisis of Fordist capitalism as well as the rise of neo-liberalism and the new imperialism. Technological innovations that first had primarily military tasks were turned into an economic context, in which the dialectic of capitalist development and ICTs took effect.

There are several competing explanations for the US invasions of Afghanistan and Iraq (see Callinicos, 2003a, 2005, 2007; Harvey, 2005, 2006; Panitch and Gindin, 2004, 2005; Wood, 2003b): the desire to secure access to oil as a strategic economic resource, to establish worldwide geopolitical hegemony, to expand US economic power in the face of the challenges posed by Europe and China, to limit the influence of Islamic nations and groups that challenge Western dominance of the world, or to extend the existing model of neo-liberal capitalism all over the world. It is possible that the invasions were motivated by a combination of some or all of these elements. No matter which position one takes here, the discussion shows that capitalist development provides the broader context for wars in the early second millennium. It is also the context for the role of ICTs in new imperialist warfare. We can therefore say that new imperialism is, on the one hand, the context for information warfare but also that information warfare itself partly transforms the new imperialism. I want to point out some aspects of the role of ICTs in new imperialist warfare (for more details and a theoretical grounding, see Fuchs, 2008). In 1991, media coverage of the attacks on Iraq was dominated by pictures broadcast by CNN that mainly showed Baghdad by night illuminated by flashes and radar images, as well as military analyses. The situation was a bit different in the 2003 Iraq War. First, some large European countries, like France and Germany, opposed the war, which resulted in a certain number of mass media reports that were critical of the US role in the war. Al Jazeera had the role of an 'Arab CNN' and, to a certain extent, reached audiences in the West so that alternative views and kinds of reporting were available. Second, with the emergence of the internet as a new medium for alternative coverage, anti-war and pro-war blogs allowed citizens, independent journalists and alternative agencies to report directly from Iraq. Their importance and influence is unclear, but it is a fact that war-related user-generated content production has today become an immanent activity of wars, revolutions, protests and conflicts.

The coverage directly from the front further transformed media coverage of warfare into a spectacle that was designed to excite and thrill viewers but, all too often, the horrifying effects of horror were not shown. More than 600 reporters were 'embedded' with British and US troops and reported directly from the front. All of these journalists had to sign an agreement that defined

'ground rules' (see Katovsky and Carlson, 2003: 401-417) and set strict limits for coverage. One can question whether it makes sense to embed journalists and whether this results in a more balanced coverage. These journalists face all the dangers that the fighting soldiers are confronted with, and hence their reports might be distorted and might reflect their subjective fears and angers more than in traditional coverage. Can 'embedded' journalists report independently and impartially on warfare they are involved in personally? Can they adequately maintain distance from their objects of coverage? Which stories are shown on TV, which ones are missing? Does 24-hour live coverage and reports directly from the front democratize and pluralize media coverage or do they create yet a new dimension of hyper-reality, media spectacles and simulated, false, one-dimensional realities? The reality of death and destruction might get lost amid the high-tech imagery delivered by the mass media. Was the embedding experiment really 'a demonstration of democratic values and freedom of speech in action' (Katovsky and Carlson, 2003: xix), or rather an integrative strategy of manipulation?

Due to its experience in Vietnam, US governments in the following decades tried to keep the mass media out of war zones when it invaded countries. This was for example the case in Grenada and Panama. Since the 1990s and starting with the 1991 Gulf War, a different strategy has been employed: one that focuses on integration instead of repression. This shift is an expression of a larger ideological shift in society from the 'disciplinary society' to the 'society of controls' (Fuchs, 2008). Embedded journalism is an integrative strategy of media self-censorship, an expression of mechanisms of the Deleuzian society of control (Deleuze, 1995). The repressive political strategy tried to discipline the mass media while the integrative strategy in addition tries to provide a certain degree of flexibility (such as embedding journalists) and freedom of movement that is kept within clearly defined limits. It tries to produce identification between mass media and military strategists. The ground rules were able to invoke discipline, but in many cases there was no need to apply them due to the ideological identity established by the practice of embedding that was able to dissolve distance between reporter and military. This ideological shift can be observed not only in the mass media but also in the area of production where strategies of participative management aim at the ideological integration of the work force into corporations. Bonus systems, team work, share options, corporate identity, attractive design of the work place, construction of a community between management and workers (a 'we identity'), the advancement of a spirit of enterprise within the workforce, and so on, are all part of this strategy that constitutes significant features of this new disciplinary regime.

In 2003, there was no longer a CNN monopoly on war coverage. Rupert Murdoch's Fox News competed heavily with CNN, while there were alternative

press institutions that mainly made use of the internet in order to provide alternative sources of war information. The competition for topical news and ratings between large channels such as Fox, CNN, ABC, CBS and MSNBC did not automatically result in a more democratic and pluralistic type of coverage. Indeed, the fierce battle for ratings helped to produce a competition as to who could present the war in the most sensationalistic and spectacular way. The result was not the proliferation of the representation of alternative views but mass one-dimensional coverage. The problem that alternative media are facing is that they are hardly recognized and little known, and that the war-waging parties try to control and influence information and war coverage.

Warfare, meanwhile, is increasingly informatized and digitized. While the US army pushes multi-player recruitment online games such as America's Army (cf. Bayer, 2006), military research in countries like the US, Israel and France focuses on the development of Unmanned Combat Air Vehicles (UCAVs) that work with precision-guided weapons. Unarmed UCAVs that monitor and collect data on enemy targets are in use in many armies. The Indoor Simulated Marksmanship Trainer is an example of a computer training system used in the US army in which soldiers fire with laser rifles at targets on a screen. In the 2003 Iraq War, the US used GPS (Global Positioning System) for navigating UCAVs and several thousand smart bombs (Webb, 2006). With the increasing importance of recognizing and monitoring enemy targets with the help of location technologies, C4I (Command, Control, Communications, Computers and Intelligence) has been renamed as C4ISR (Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (see National Research Council, 2004).

Airborne Warning and Control System (AWACS) airplanes can now radar-detect targets and transmit the coordinates to bombers. The B-2 Stealth Bomber that can drop GPS-guided bombs was first used by the US army in the Kosovo war in 1999 and subsequently in Afghanistan in 2002 and in Iraq in 2003. Target coordinates collected by GPS satellites or UCAVs were transmitted to aircrafts and there was a real-time display of forces on computer screens (Larkin, 2006: 123). Joint Direct Attack Munitions (JDAMs) are smart bombs equipped with a guidance computer that permanently receives positioning data from GPS systems. The AGM-154 Joint Standoff Weapon (JSOW) is another GPS-guided smart bomb. Both types of weapons were dropped by B-2, B-1, B-52 and F-117A bombers on Iraq in 2003 (*Time*, 21 March 2003, 21 April 2003, Newsweek, 31 March 2003). Tomahawk cruise missiles that are guided by data that they receive from GPS were launched from ships and submarines (Time, 21 March 2003). The M1 Abrams battle tank, employed in the 2003 Iraq War, is equipped with a computerized fire-control system that, with the help of sensors, collects data, calculates target solutions for the gunners and can

automatically fire at the target (*Time*, 21 March 2003). Joint Expeditionary Digital Information systems that link ground troops via satellite so that they can, for example, call in missile strikes are being developed by the US military (Rheingold, 2002: 162f.).

Hacking is also central to contemporary warfare. A dispute between China and the US involving the hacking of government websites and servers erupted in cyberspace after US forces accidentally bombed the Chinese embassy in Belgrade during the Kosovo war on 7 May 1999. The attack was carried out by a misguided bomb which shows that such weapons are still prone to technological errors (for example if the GPS signal connection to the satellite fails and the bombs hits a wrong target because the position could not be dynamically actualized) and human error (for example if there is a wrong input of initial target coordinates) and that a bloodless cyber-war is hence unlikely. After a US spy plane collided with a Chinese fighter jet and had to make a forced landing on Chinese territory in April 2001, a war between Chinese and American hackers, who disabled and defaced websites, erupted.

Networked warfare frequently makes use of technological networks for communication. So, for example, the US military uses the SIPRNET (Secret Internet Protocol Router Network) for transmitting classified information and the NIPRNET (Non-classified Internet Protocol Router Network) for transmitting unclassified information. The reality of information war today involves network warfare, media manipulation, smart weapons, virtual reality training, encrypted communication and hacking. The targets of war are still material and human – war has not become a pure simulation as sometimes claimed in postmodern theories. War is mediated by information technology so that there is less direct human contact and more possibility of long-distance air attacks. Humans control and operate war technologies, but they gain more distance from their enemies whom they attempt to wipe out with the help of information technologies. There are no purely virtual battlefields with virtual soldiers.

Conclusion

Privatization, commodification, globalization and financialization form the core processes of the new imperialism. They are drivers of ICT development but, at the same time, also partly driven by these technologies. ICTs are therefore both medium and outcome of capitalist development processes. ICTs as aspects of warfare play a key role in the new imperialism in relation to, for example, the coverage of war, recruitment games, military communication

networks, and especially the development and deployment of weapon systems. ICTs, like computers and the internet, had their origin in a military context and were then diffused into capitalist economies where they both intensified and were shaped by processes of capitalist development. They are now used as a specific means of waging the struggle against new forms of terrorism but also, of course, by the terrorists themselves.

The US-led wars in Iraq and Afghanistan are the practical validation of the presence of the fifth characteristic of Lenin's concept of imperialism: struggles for the control of the world today. Military conflicts that aim at territorial control and global hegemony and counter-hegemony are immanent features of the new imperialism. Lenin (1917: 264) argued that imperialism is leading to annexation and increased oppression and consequently also to increased resistance. 9/11 and the rise of global terrorism can be interpreted as a reaction to global US economic, political and cultural influence. It resulted in a vicious cycle of global war that creates and secures spheres of Western influence and global terrorism that tries to destroy Western lifestyles and Western dominance.

The history of capitalism after the First World War did not bring an end to warfare. Since then we have seen major conflicts including, for example, the Second World War (1939–1945), the Vietnamese War of Independence (1946–1954), the Cold War (1945–1990), the Korean War (1950–1953), the Vietnam War (1959–1975), the invasion of Grenada (1983), the invasion of Panama (1989–1990), the Persian Gulf War (1990–1991), the War in Afghanistan (2001–), and the War in Iraq (2003–). In many of the bloodiest wars of the twentieth and twenty-first centuries, North American and European nations have been involved. This is not an abstract example but empirical evidence that war is an inherent means of the expansion of capitalism that creates spheres of economic and political influence. It is one element of imperialism. The end of the Soviet Union has not brought an end to the threat of global war, but new geopolitical conflicts all over the world that have shaped capitalism since the 1990s.

The First World War was the expression of the political-economic conflict between what Lenin termed imperialism's 'great powers' (1917: 239). Imperialism is necessarily a system of political-economic competition between great powers. In contemporary conditions, the military conflicts do not always coincide with economic conflicts. Arab nations and groups question Western hegemony through military means, while Asian nations such as China challenge the West through economic means. Lenin spoke of imperialism as the conflict between great powers, which does not imply that these great powers need only be nation states but also corporations and various ideologically driven groups. Military wars have economic dimensions and economic wars

can, and in many cases do, result in military wars, but if and when exactly this happens is not predetermined but a matter of the contingent complexity of societal power struggles. We simply do not know, for example, if in the future there will be a military war between China and Western nations for political-economic hegemony. The future cannot be predicted, but we can say, looking back to the past, that it is highly likely that if the twenty-first century does not establish alternatives to the global rule of capitalism, that it will be another century of violence with new territorial wars waged for political and economic reasons.

References

- Bayer, M. (2006) Virtual violence and real war, in E, Halpin et al. (eds) *Cyberwar, netwar and the revolution in military affairs*. Basingstoke: Palgrave Macmillan: 12–31.
- Callinicos, A. (2003a) An anti-capitalist manifesto. Cambridge: Polity.
- Callinicos, A. (2003b) Toni Negri in perspective, in G. Balakrishnan (ed.) *Debating empire*. London: Verso: 121–143.
- Callinicos, A. (2005) Imperialism and global political economy. *International Socialism* 108, Online version: http://www.isj.org.uk/index.php4?id=140&issue=108
- Callinicos, A. (2007) Social theory. Cambridge: Polity.
- Deleuze, G. (1995) Postscript on the societies of control, *Negotiations*. New York: Columbia University Press: 177–182.
- Fuchs, C. (2008) *Internet and society: social theory in the information age.* New York: Routledge.
- Fuchs, C. (2009) A contribution to critical globalization studies. Centre for the Critical Study of Global Power and Politics Working Paper CSGP 09/8. Peterborough, Canada: Trent University.
- Fuchs, C. (2010a) Critical globalization studies: An empirical and theoretical analysis of the new imperialism. *Science & Society* 74(2): 215–247.
- Fuchs, C. (2010b) Critical globalization studies and the new imperialism. *Critical Sociology* 36(6): 839–867.
- Fuchs, C. (2010c) New imperialism: Information and media imperialism? *Global Media and Communication* 6(1): 33–60.
- Fuchs, C. and Zimmermann, R. (2009) Practical civil virtues in cyberspace: towards the utopian identity of civitas and multitudo. Munich Series in Design Science Volume 5. Aachen: Shaker.
- Giddens, A. (1990) *The consequences of modernity*. Stanford: Stanford University Press.

- Habermas, J. (1989) *The Structural Transformation of the Public Sphere*. Cambridge, MA: MIT Press.
- Hardt, M. and Negri, A. (2000) *Empire*. Cambridge, MA: Harvard University Press
- Hardt, M. and Negri, A (2004) Multitude. New York: Penguin.
- Hardt, M. and Negri, A (2009) *Commonwealth*. Cambridge, MA: Harvard University Press.
- Harvey, D. (1990) The condition of postmodernity. Cambridge, MA: Blackwell.
- Harvey, D. (2003) The new imperialism. Oxford: Oxford University Press.
- Harvey, D. (2005) *A brief history of neo-liberalism*. Oxford: Oxford University Press.
- Harvey, D. (2006) Spaces of global capitalism. Towards a theory of uneven geographical development. London: Verso.
- Harvey, D. (2007) In what ways is the 'new imperialism' really new? *Historical Materialism* 15(3): 57–70.
- Hofkirchner, W. (2007) A critical social systems view of the Internet, *Philosophy of the Social Sciences* 37(4): 471–500.
- Katovsky, B. and Carlson, T. (eds) (2003) *Embedded: The media at war in Iraq*. Guilford, Connecticut: Lyons Press.
- Larkin, B. (2006) Nuclear weapons and the vision of command and control, in E. Halpin et al. (eds) *Cyberwar, netwar and the revolution in military affairs*. Basingstoke: Palgrave Macmillan: 113–138.
- Lenin, V. I. (1917) *Imperialism, the highest stage of capitalism*. Sydney: Resistance Books.
- Marx, K. (1867) *Capital: Volume 1*. London: Penguin.
- National Research Council (2004) *Army science and technology for homeland secu*rity. Report 2: C4ISR. Washington, DC: National Academies Press.
- Negri, A. (2008) Reflections on empire. Cambridge: Polity.
- Panitch, L. and Gindin, S. (2004) *Global capitalism and American empire*. London: Merlin Press.
- Panitch, L. and Gindin, S. (2005) Finance and American empire, *Socialist Register*. 41, 46–81.
- Perrow, C. (1999) *Normal accidents: living with high-risk technologies*. Princeton: Princeton University Press.
- Rheingold, H. (2002) Smart mobs. New York: Basic Books.
- Robinson, W. (2004) *A theory of global capitalism*. Baltimore: Johns Hopkins University Press.
- Robinson, W. (2007) The pitfalls of realist analysis of global capitalism. A critique of Ellen Meiksins Wood's Empire of Capital. *Historical Materialism* 15(3): 71–93.

- Sklair, L. (2002) *Globalization: capitalism & its alternatives*. Oxford: Oxford University Press.
- Webb, M. (2006) Illusions of security: Global surveillance and democracy in the post-9/11 world. San Francisco: City Lights.
- Wood, E. M. (2003a) A manifesto for global capitalism? in G. Balakrishnan (ed.) *Debating empire*. London: Verso: 61–82.
- Wood, E. M. (2003b) *Empire of capital*. London: Verso.
- Zeller, C. (2004a) Die globale Enteignungsökonomie, in C. Zeller (ed.) *Die globale Enteignungsökonomie*. Münster: Westfälisches Dampfboot: 9–20.
- Zeller, C. (2004b) Ein neuer Kapitalismus und ein neuer Imperialismus? in C. Zeller (ed.) *Die globale Enteignungsökonomie*. Münster: Westfälisches Dampfboot: 61–125.