CHAPTER 4

THE INFORMATION ERA: SETTING THE STAGE

1. INTRODUCTION

According to Gabriel (1994) the task of scholarship is not only to search for more knowledge but also to deal repeatedly with fundamental issues and to do so in the light of new circumstances. The past two decades have seen developments in the field of information and communication technology that are unequalled in any other sphere of human existence. The exploitation of these developments has led to such a changed environment that it is not described as merely "new circumstances", but as a new era: the information era. The information era delineates the temporal boundaries for the study and as such the context that demands the re-evaluation of the fundamental issues, democracy and world peace. This chapter aims to explain the ways in which the information era is distinct from other eras in the world's history. It traces the origin of the information era firstly to the idea that information yields power and secondly to the technological progress that makes it possible to exploit that idea to the extent that it comes to dominate human interaction. This process has been called the information revolution and its impact is explained by reviewing different theoretical approaches to the relationship between technology and society. An integrated approach is then developed and applied to describe the nature of the information era. In doing so the chapter sets the stage for examining democracy and world peace in the light of the new circumstances brought about by the information era.

2. HISTORIC CONTEXTUALISATION OF THE INFORMATION ERA

There are different ways to relate the information era to previous historical periods in the world's history. According to Builder (1993:158) enthusiasm for an idea induces societal development and change in the form of a new era. An era lasts about 50 years before a new idea comes to dominate society. Although he argues that this is true for all open secular societies, he uses American society to explain the information era. The past 200 years of

American history have seen a series of ideas overtaking one another and introducing new eras. Around 1800 the dominant idea centred on the design of government as a way to create a more perfect society. Overtaking this idea by 1850 was the seemingly, unlimited growth and wealth opportunities offered through natural resources and as such shifting the focus to the land frontier. By 1900, however, enthusiasm for the idea of industrialisation had induced a new era where the production of goods and services changed society. The 1950s saw the industrial era being replaced by the technology era. This era was characterised by technological innovations of which the most striking occurred in the fields of nuclear and space technology. The most recent idea dominating American society (and the rest of the developed world) is that of exploiting information in ways that promise to transcend time, distance and human hierarchies heretofore characterising society. Although Builder's explanation focuses on enthusiasm for this idea in American society, he acknowledges that it is by no means confined to the United States. On the contrary, the implications of the information era are felt globally.

An alternative way of contextualising the information era historically is by making use of the metaphor of history as "waves" of change. According to Heidi and Alvin Toffler (1994a:27 & 1994b:8, 78) this metaphor is more dynamic and revealing in terms of the conflict that accommodates societal change. They employ the idea of waves to explain the current period in the world's history in a broader context than Builder who mainly does so in an American context. The information era, described in this way, is the third of three great waves of change. The First Wave of change was brought about by the agricultural revolution ten millennia ago. As it spread, humans who previously lived in small often migratory foraging, fishing, hunting or herding groups, founded settlements and villages and cultivated land.

Although the agricultural era had not exhausted itself by the end of the seventeenth century, the Second Wave of change started to spill across the world with the invention of the steam engine and the subsequent industrial revolution. As peasants urbanised, land was not only replaced by industry as the dominant economic preoccupation, but new ideas surfaced, changing the very structure of society. The nuclear family supplanted the large agrarian style household; mass production, mass consumption and mass education were the order of

the day, accompanied by the formation of specialised institutions such as schools, political parties and corporations.

Just as the First Wave had not entirely spent its force when the Second Wave caught up with it, the Third Wave of change is rapidly overtaking the Second Wave. The origin of the Third Wave can be traced to the decades just after World War II, the period during which the industrial era peaked. The Third Wave rise to dominance is "based on the new ways it creates and exploits knowledge" (Toffler & Toffler 1994a:31). Knowledge, generally understood, is at the apex of a rising hierarchy with data at the bottom and information in the middle. Data are raw facts and information is the organised patterns thereof while knowledge is a network of relationships connecting information (Rondfeldt 1992:245)[10]. The Third Wave is characterised by new knowledge networks, as businesses, governments and individuals link concepts together to create new hypotheses, theories and images.

For both Builder and the Tofflers the essence of the new era is enthusiasm for the idea that exploitation of information yields power. This is not at all a new idea, and neither is its implementation. In fact, the development of language and alphabet, printing and the telegraph and eventually the telephone, radio and video camera is an indication that the value of storing, processing, transmitting and accessing information in as accurate a form as possible, has been pursued through the ages. What distinguishes the last 20 to 25 years (and possibly the following 25 years) from the past to the extent that it can be labelled the information era, is the technological advancement that made it possible to exploit information like never before. This in turn led to "conceptual changes in the awareness of the role of information in human behaviour, organization and society" (Rondfeldt 1992:245). Collectively, these technological and conceptual changes brought about the information revolution.

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[10] A strict distinction is not always maintained between the concepts data, information and knowledge. The term "information" is often used to refer collectively to the hierarchy and depending on whether the context demands otherwise, the same will be done in this chapter.

3.   THE INFORMATION REVOLUTION

Information technology[11] (IT) "is a term broadly applied to the use of computer, electronics, and telecommunications equipment for processing and distributing information in a digital form. This distribution ranges from worldwide networking of industries to individualized services, including cable TV and email" (Business 2.0 2000:198). In other words, IT is "the acquisition, processing, storage, dissemination and use of vocal, pictorial, textual and numerical information by a microelectronics-based combination of computing and telecommunication." (Martin 1988:24). The technological dimension of the information revolution is thus embedded in computing, telecommunications and micro-electronics technologies. So great has been the impact of these technologies that their capacity to affect change has awarded them the mantle of "enabling technologies". To avoid a pitfall that Salter (1993:5) identifies, namely that information technologies are viewed as a package despite the differences between them, it serves to briefly outline the developments in each of the three areas (computing, telecommunications and micro-electronics).

Computing: In the last 50 years computing technology has gone through four generations of development. First generation computers were characteristically bulky, occupied a lot of floor space and were subject to frequent vacuum-tube burnout. Second generation computers used transistors, consumed less energy than first generation computers, were more reliable, less bulky and less expensive (Grill 2000:1). Third generation computing was initiated by the development of the integrated circuit and microprocessor that would transform the computer industry as well as any other industry producing machines that manipulated information or controlled a process, albeit washing machines, gas pumps or doorbells. The 1970s and 1980s saw commercial competition in the industry as chip technology improved and computers became smaller, faster and cheaper. The only aspect standing in the way of the computer's success in the mass market was public acceptability. This was overcome by the developments in computer software, sometimes referred to as the driving force in computing, resulting in multi-user and multi-tasking systems. Fourth generation language was added to this and created a user-friendly computer (Saxby 1990:238). The range and sophistication of software packages and computer hardware

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[11] The terms information technology (IT) and information and communication technology (ICT) are used interchangeably in literature, but for the sake of consistency the term IT will be used throughout the study.

(including the improvements in density and access time of electronic memory), is already in the fifth generation. This means that computing is characterised by expert-systems, intelligent knowledge-based systems and knowledge engineering, and unprecedented power in processing and human-computer interaction (Martin 1988:25, Grill 2000:2).

Telecommunications: Digitisation, that is, the encoding, transformation and transmission of information, whether voice, text, data or image in bit form, was the impetus for a world-wide communications infrastructure (Saxby 1990:263). Digital technologies are replacing analogue systems and the result is increased capacity as several independent channels can be combined into a single high-speed channel, making transmission more cost efficient. The second major technological development in this area is switching. Advanced switching technologies include the ability to store information if a line is occupied. It is then re-routed to the required destination or the message is broken up in segments and sent via different routes to be reassembled in the correct order. It also includes Asymmetric Digital Subscriber Loop (ADSL), which allows data to flow in both directions at high speeds (Bryan, Tsagarousianou & Tambini 1998:3).

Telecommunications were also enhanced by the discovery that information can be transmitted as 'on-off' pulses of light down a glass fibre. Less leakage and less susceptibility of interference have made it a preferred option especially for long-distance communication (Martin 1988:33). Recent developments in fibre optics involve Dense Wave Multiplexing (DWDM), which uses light of different colours or wavelengths to simultaneously carry separate streams of traffic over the same fibre. Along with advanced switching technologies, fibre optics greatly facilitated high-bandwidth to the extent that the influential business technology journal, *The Red Herring*, examined the scenario of an oversupply (or glut) of bandwidth (Bruno 2000).

Telecommunications has also been significantly furthered by improvements in satellite and cellular technology. By 1990, 2500 transponders had been in orbit around the earth. Transponders on a satellite receive transmissions from an earth station and then retransmit them to one or more other earth stations. It is used for telephone and broadcasting services, business communications, data processing in space and mobile communications to ships and land-based vehicles on the move. Cellular technology or wireless technology as it is

also called, makes mobile telephone and now also Internet facilities possible (Industry Trend or Event 1999:62). Cellular technology makes use of radio waves as opposed to surface-bound infrastructure to transmit signals that are received and converted into voice or text.

Micro-electronics: It has been the basis of much of the developments in both computing and in telecommunications as have been discussed above. According to Bankes and Builder (1992:4) "it was the developments in solid-state electronics, beginning in the 1950s, that brought all of these devices [telegraph, telephone, radio, television, and electronic computers] into practical form that could be mass produced and distributed to individuals throughout the world. Thus the basis for the current information revolution is not the advent of the radio or television or even computers, but their magical transformation by the silicon chip in all of its many manifestations." A microchip is a "tiny complex of electronic components and their connections that is contained in or on a small, flat piece of material (usually silicon)" (Business 2.0 2000:198). Suffice it then to note that the impact of micro-electronics on computers and on telecommunication devices has been compactness, cheapness, reliability and disposability (Martin 1988:31).

It is clear that the developments in the three areas of enabling technologies did not occur separate from one another. In fact, digitisation meant that "all the media become translatable into each other" (Brand in Saxby 1990:3) and this has been fundamental to the information revolution. Convergence, that is, the ease of interaction between information technologies, occurs on different levels and in different directions. In this regard, Martin (1988:32) writes that convergence is not only the marriage of two technologies — telecommunications and computing — but also the erosion of functional barriers as between data processing and communications as well as the vertical integration of industries. As voice (traditionally the terrain of telecommunications), data (computing), text (publishing and library services) and video (broadcasting) are translatable into one another, service suppliers become more interrelated (Cowie 1989:22). The Time Warner (broadcasting)/America Online (Internet) merger in January 2000 is one of the best examples to illustrate this.

The information revolution, as was noted above, is not only about developing these technologies (the qualitative dimension), but the fact that it has been diffusable to large numbers of people all over the world (the quantitative dimension). The scope of personal electronic media, that is, information and communication media that are available for personal use and to an extent controllable by individuals, have expanded from television sets and citizen band radios in the 1940s to desktop and laptop computers, personal fax machines, handhold video cameras, cellular telephones, cable television and satellite uplinks in the 1990s (Ganley 1991:5, 6).

This expansion in personal electronic media along with the exploitation of computer-telecommunications convergence have paved the way for the creation of a world-wide web of networked computers. In the late 1960s the US Department of Defence Advanced Research Projects Agency (ARPA) embarked on a research project at the University of California that would be the precursor of the Internet as it is known today. A decentralised computer network was established not to maintain military communication in the event of a nuclear attack as is commonly suggested, but to link several of ARPA's research sites, universities and other institutions conducting experiments funded by ARPA. It is important to note here that the Internet was never linked to any critical military application or system. In this regard Chapman (1998:5) is of the opinion that "the Internet was not burdened with security classifications, black budgets, or secret technical specifications." In fact, it is precisely the research character of the Internet that explains why it was so easily absorbed by the civilian sector and commercial enterprises.

In 1983 the computer network which was established was split in two, ARPANET, for the research community and MILNET for non-classified military communications (Chapman 1998:2). Soon after, the US National Science Foundation (NSF) took charge of the administration and maintenance of lines and equipment. The NSF made the network available to their students, personnel and affiliated institutions. As other universities, research and development institutions and US government agencies connected their computers to the system it became an "anarchic global network of networks known, increasingly as the Internet" (Dery 1996:5). The 1990s saw the spread of modems and networked computing which brought the Internet to average citizens and commercial enterprises. This has led to tens of thousands of networks reaching across the globe. The

Internet is itself a part of a larger complex of interconnected networks, called the Matrix. Common communication protocols link the several networked spaces that in turn consist of thousands of individual networks and are collectively referred to as cyberspace (see Appendix D for a conceptual map of cyberspace).

A wide range of interactions are possible in cyberspace such as browsing information stored on other computers and searching databases, exchanging electronic mail, participating in discussion groups on a multitude of topics and increasingly engaging in e-business (Kitchin 1998:3). Observing the expansion of cyberspace into virtually all spheres of human activity and the growing number of Internet users world-wide (see Appendix C for an outline of Internet hosts, domains and websites growth as well as world-wide network growth and Appendix E for growth in number of users online), scholars agree that the information revolution has changed the world, whether directly or indirectly, in very substantial ways. The nature of these changes is, however, often contested. Conflicting explanations of the impact of the information revolution can be traced to different theoretical approaches towards the relationship between technology and society, which invariably underlie these explanations. In this respect it serves to briefly review the most important of these approaches.

4. THE RELATIONSHIP BETWEEN TECHNOLOGY AND SOCIETY

The theoretical approaches most commonly employed to study the nature of the information era are utopianism and futurism, technological determinism and instrumentalism, social contructivism and political economy.

Utopianists and futurists try to forecast how technological progress will affect society. They usually do this by using a grand metaphor approach whereby Western society is *en masse* approaching a new stage in its development as some form of information society. There is a general optimism surrounding technological advancement in the sense that it will bring forth technical solutions to ethical, economic and political problems. A utopian future is conjured up where technology would be "framed within an organic and communitarian political context, be decentralised and humanly scaled, and be used to link community groupings" (Kitchin 1998:56-57). The Tofflers are often mentioned in this category.

Wright (1995:39) quotes the Tofflers as saying: "Today's spectacular advances in communications technology open, for the first time, a mind-boggling array of possibilities for direct citizen participation in political decisionmaking". The critique against this kind of futurist utopianism is that little regard is paid to the role of existing social and economic considerations in the re-appropriation of technologies. In other words, the way in which technologies fit into the social and economic landscape is ignored.

Technological determinists are criticised for similar reasons. They argue that social, economic, cultural and political aspects of life are determined by technology. Fitting technology into the social and economic framework does not matter because technology shapes that framework. Technology is independent and in that sense autonomous or "outside society" (Kitchin 1998:57). The question is not how IT is used and adapted to fit everyday needs, but how society adapts to accommodate IT. IT will lead to changes in business practices, it will change how democracy is practiced, and it will inevitably change culture. How it will change all these features of society depends on the deterministic assumptions made. Different scholars thus predict different trajectories of societal change as a result of technology (MacKenzie 1996:26). The main point of criticism against technological determinists is their simplified, linear models of cause and effect. For example, a paperless office was predicted in the era of computerised communication based on the assumption that people would want to save time and costs associated with paper. This prediction turned out to be wrong because it ignored the values and habits of readers as well as the difficulty of reading on a screen as opposed to paper. Penley and Ross (1991) deliver a particularly strong critique against technological determinism. They argue that technologies are not repressively foisted onto passive populations. On the contrary, technologies are developed at any one time and placed in accord with a complex set of existing rules or rational procedures, institutional histories, technical possibilities, and popular desires. Thus, technology does not have an incentive of its own.

On the other extreme is a purely instrumentalist perspective of technology. Instrumentalists argue that technology "simply supports the interests of its user; a tool has no intentions of its own, but is simply a formal device" (Trend 1997:106). Whatever the social context, technology is rational and neutral, and only extends the capacities of its users, which are embodied in the 'goal' of the technology. An instrumentalist approach would, for example,

deny that the car had a more profound impact on society and culture than simply serving the purpose of transport or that television became so ingrained in culture that it was more than simply a tool for informing and entertaining. The Internet and other forms of IT, in the same sense, do not lead to societal change because they do not have an incentive of their own. They are simply tools that serve users' interests. From a historical perspective, an instrumentalist approach will also not suffice as it ignores completely that technology can change society in unexpected ways without the "consent" or even knowledge of its users.

To fully understand the impact of the information revolution, it is important not to abstract IT from the values and belief systems in which it operates (which both determinist and instrumentalist approaches do), but to place greater emphasis on exploring the underlying processes of technical and social change. According to Feenberg and Hannay (1995:9) technical objects have two hermeneutic dimensions, namely social meaning and cultural horizon. By examining the social role of technology and the lifestyle it makes possible, its social meaning becomes apparent. It is only then that technology's contextual causes and consequences become clear.

Cultural horizon, on the other hand, is a concept denoting the unquestioned background to every aspect of life, some of which support the prevailing hegemony in society. Cultural norms emanating from economics, ideology, religion and tradition form this horizon and in turn the boundaries of technological development. The rationality underlying how a society functions is mirrored in technology and in that sense technological hegemony is established. Hegemony here means a form of domination so deeply rooted in social life that it seems natural to those it dominates. Marxist scholars explain how class relations are entrenched in the design of production technology. The assembly line de-skills workers and paces work, thus increasing control over workers and in turn, increasing productivity and profit. In a society where the dominant rationality is to impose discipline on workers from above, the assembly line will be seen as technological advancement. Thus, the hegemonic values that characterise society are incorporated in machines and remain unquestioned because it is "that aspect of the distribution of social power which has the force of culture behind it" (Feenberg & Hannay 1995:10).

Two approaches to the relationship between technology and society that aim to go beyond the determinist/instrumentalist dichotomy to appreciate the hermeneutic dimensions of technology are social contructivism and political economy. Constructivists argue that technology, society and nature are inherently intertwined to the extent that "contemporary technology is embraced, diverted and reappropriated by everyday life" (Lemos in Kitchin 1998:58). Constructivists often think in terms of systems instead of cause and effect and to this end "they concern themselves with relationships more than objects, with process more than structures, with networks more than hierarchies. In a system, a given effect not only radiates through the system, it also generates feedbacks which change the factor that caused it." (Milbrath in Trend 1997:26). Social constructivism thus aims to understand how technology and its uses are 'constructed' through complex political and social processes, that is, institutional and individual interaction whereby many different actors and agencies interplay over periods of time (Kitchin 1998:59).

Political economists emphasise the interrelatedness of technology and society too, but do this in the context of the capitalist economic order. The broader dynamics of capitalism that shape society and the powers that underlie the capitalist order are key to understanding the developments in IT because technology is used to serve the interests of industrial and corporate profits. A neo-Marxist argument is often made by political economists that the information society is a myth created by government, the military establishment and TNCs who benefit from the information revolution (Kitchin 1998:60). Moreover, this argument is extended to include the global capitalist order by referring to North/South relations and how the comparative advantage that the former has over the latter in terms of trade is exacerbated by the information revolution. Drahos (1995:210, 211) writes: "High-tech industries were increasingly becoming a force to be reckoned with in Washington DC. Many of them, like Microsoft, Apple, and Lotus had hit the Washington lobby trail in a serious frame of mind. Industry associations like the Business Software Alliance and the International Intellectual Property Alliance were formed to articulate and protect the interests of these information giants. In the 1990s the United States reclaimed, if it had ever lost, its status of hegemonic leadership in the world." The information era is sketched as an era where IT will be concentrated in the hands of massive multi-media conglomerations, an era of information feudalism where a digital divide exemplifies the already existing inequalities in and between countries.

The utopianist/futurist, determinist/instrumentalist, constructivist and political economy approaches explain the impact of the information revolution on society from a paradigm of modernism. Modernists are criticised for constructing unified, grand theories that seek to reveal universal truths but fail to account for differences between people and places. These theories are mutually exclusive and therefore criticised for a one-sided explanation of societal change that cannot be sustained in the face of disunity or conditions of difference (Kitchin 1998:61). In this respect it is useful to refer to the post-modern approach towards the relationship between technology and society. On one level, post-modernism suggests new attitudes towards knowledge, methods, theories and communication removed from objective science and its singular narratives, universal truths and causality. On another level, post-modernism emphasises that the modern society is undergoing substantial changes where individuals are not rational, autonomous, centred and stable but unstable, multiple and diffuse (Kitchin 1998:62). Rothkopf (1998:327), in explaining the impact of the information revolution on international relations, incorporates both these levels when he writes: "In an attempt to identify the key characteristics of this [information] revolution and their implications for international relations, we must begin with a recognition that revolutions, like wars, produce a fog of actions, distraction and other stimuli that make clear thinking a challenge and meaningful conclusions elusive. The nature of this revolution in particular demands a recognition that change has become one of the few constants and that we must accept that literally and figuratively we live in a metastate, a changing polity and a time of flux." Post-modernism emphasises that the information era is an era of fragmentation, pluralism and individualism. It is an era characterised by what the Center for Strategic Studies/Robert R. McCormick Tribune Foundation calls "a new ontology of contradictions" with a list of contradictory phenomena, such as simultaneous global fragmentation and integration, rapid economic change and slow institutional change, stronger forces of anarchy and control.

When it comes to explaining the impact of the information revolution on society, it is useful to take a more integrated approach that incorporates social constructivism and political economy approaches, while sharing post-modern concerns.

5. AN INTEGRATED APPROACH TO THE IMPACT OF THE INFORMATION REVOLUTION

The information revolution has led to a reconfiguration of traditional modernist notions of space, hierarchy and the basis of wealth. It has done this in the following ways:

Space: The reconfiguration of space (or geography) in the information era is described in at least three ways. Firstly, there are those (for example Bankes and Builder 1992:3) who argue that the interconnectivity made possible by IT is shrinking the globe. As individuals, institutions and communities become linked through computer networks, satellites and other public and private telecommunication infrastructure, geography and time are no longer boundaries (Kitchin 1998:15). A time-space compression is occurring and this has especially manifested itself on the global economic front. A domestic problem in Taiwan or Mexico can have instant effects on financial markets world-wide as was seen in 1998 with the Asian crisis and in January 1999 when the peso collapsed (Rothkopf 1998:334). On the political front, interconnectivity is also seen through the ability of people all over the world to mobilise around the issues that are important to them, whether they are geographically close to them or not.

Secondly, there are those (for example Gillepsie and Williams in Kitchin 1998:15) who argue that IT is not only shrinking distance, but is rendering it increasingly irrelevant. To this end IT goes beyond other transport and communication improvements that reduce the friction of distance by eliminating it completely because the cost and time it takes to communicate over 10 000 kilometres is indistinguishable from the cost and time it takes to communicate over one kilometre. Professional, economic, educational, political and even social relationships are thus possible without regard to geography (Bankes & Builder 1992:10). This is especially true for conducting business over cyberspace as transactions are effectively disconnected from a physical location. According to Rothkopf (1998:335) "(a)ssets can live permanently 'offshore' and can move instantaneously from one location to another. Indeed, in such a fluid environment, the idea of 'location' is more or less a legal fiction with most assets not backed by any hard commodity, existing instead as a stream of ones and zeros in the digital memories of a financial institution and, in theory, constantly moving from one market to another."

Linked to the idea that the information revolution is not only compressing time and space, but converging it to devalue physical location, is the idea that cyberspace is providing a new social space. Cyberspace is described as free of the constraints of the body and devoid of any of the qualities of formal, real-world space. In fact, it is regarded as antispacial because "you cannot say where it is or describe its memorable shape and proportions or tell a stranger how to get there. The Net is ambient - nowhere in particular but everywhere at once. You do not go to it; you log in from wherever you physically happen to be ... the Net's despacialization of interaction destroys the geocode's key" (Mitchell quoted in Kitchin 1998:17). Cyberspace is then often thought of as that space which is behind the computer screen or the virtual "world in the wires".

Although the information revolution fundamentally alters traditional notions of space, geography and time will continue to be significant for three reasons. Firstly, there is a visible inequality in the density of the global information network in and between countries. Cable News Network (CNN) International reaches only three percent of the world's population of which only one-fifth have access to a television set and only a fraction of people (304 36 million) of the six billion people have access to Internet (Moisy 1997:79; NUA Analysis) (see Appendix D). Secondly, while information on-line may be dislocated, the value of information is often dependent on the locale within which the body resides. A person may, for example, be able to visit websites of travel destinations, but the question is whether it will ever replace physically visiting those places. Thirdly, cyberspace is made possible by real world spatial fixity: points of access, and the physicality and materiality of wires and other infrastructures that make a global information network possible. It does not annihilate other political, economic and social determinants that are dependent on geography such as face-to-face social networks, the physical needs of an electorate, a workforce and access to materials and markets (Kitchin 1998:16).

In fact, it is argued that the information revolution actually accentuates the differences between places inasmuch as it allows for producers and consumers to capitalise on it. IT makes it possible for producers to "slice up the value chain", or complete different stages of the production process in places where their cost-benefits (cheap labour, reduced standards

of work conditions, lenient environmental laws) will be optimised while maintaining unity of organisation.

Whether the reconfiguration of space means accentuating geography or devaluating it, it implies vast implications for any form of government based on geography. In a federal system such as the US, state and county tax collection and laws differ, and this begs the question which state or county's tax system or laws will apply to cyberspace. This problem is mirrored on the international scale, exemplified by a case in which the US Food and Drug Administration (FDA) blocked sales of home kits to test for AIDS and a South African company sold kits over the Internet, delivered them by mail and thwarted overseas regulators (Huber 1996:146). Analyses of this problematique have given rise to talk of the diffusion of state boundaries, the demise of the state system or simply the fact that because citizens can to some extent 'choose' the laws and tax system they want to adhere to when doing business over cyberspace, governments are now in competition with one another.

Hierarchy: The limits placed on communication between subordinates are seen as a way hierarchy in organisation is maintained, albeit in the business, political, religious, military or educational terrain. It is argued that the information revolution makes it increasingly easy for subordinates to communicate horizontally, outside of normal channels. In the business sector this can be seen in the decline in middle management and the empowerment of workers and in the political terrain in the ease with which dissidents can mobilise (Bankes & Builder 1992:11). The unravelling of structures is best illustrated, though, by the disaggregation, decentralisation and disintermediation of the world's financial markets. Power is no longer concentrated in the hands of a few central bankers, a few major banks and a few leading stock brokerages, but is held by all players that have sufficient capital and are plugged into the global system. The electronic marketplace is undermining the monopolies of clubs, previously defined by size and personal networks that would meet to discuss whose capital would back which deals. Just as individuals can become so called "on-line" stock traders, they can also avoid middlemen in every other sphere of business because the Internet makes it possible for buyers and sellers to find and deal with one another directly (Rothkopf 1998:335).

The decline in hierarchy does not mean that hierarchy will disappear completely. It may be replaced by other forms of hierarchy for example individual billionaire speculators in the financial markets, such as George Soross, controlling the state of affairs. Moreover, the decline of hierarchy has potentially destabilising or anarchical effects as more actors enter the system. Although the impact of the information revolution on hierarchy is often portrayed as dispersing power to individuals with democratic implications (Bankes & Builder 1992:13), Ganley (1991:7) warns that new personal media permit individuals to intrude upon and deceive other individuals or, as the countless hackers attacks have proven, to disrupt established institutions. There is also a school of thought that questions the decline of hierarchy, especially where governments are concerned. They argue that governments have more power than ever to intercept communications and survey citizens, breaching their right to privacy and creating a "big brother is watching you"[12] system (Wright 1999a:1-15).

The basis of wealth: Of all the conceptual changes that accompany the information revolution, the idea that knowledge (or information) is the central economic resource of the information era seems to be the least contested. It is noted that manufacturing, like agriculture during the industrial revolution, will not disappear during the information era, but is being eclipsed by information as the basis of wealth. The fact that material and fabrication cost is declining in relation to the cost of the information, which defines the product (such as money invested in skills of workers and data necessary to conduct business), is an example of this trend. Computer software is not only becoming relatively more expensive than computer hardware, but also more important to optimise the value of computers (Bankes & Builder 1992:12). Another way in which the reconfiguration of the basis of wealth is manifested is in the growth of jobs in the information sector, which is already outnumbering jobs manufacturing physical goods in Western countries. Rondfeldt (1992:247) contends that "information is treated increasingly as a valuable source of competitive advantage, and capital and information are becoming more interchangeable as factors of production." For some business leaders, information is important as a source of capital, but for others it even succeeds capital as a source of economic and political power.

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[12] The phrase 'big brother is watching you' originated from George Orwell's novel *1984*. In the novel Orwell imagines two-way television surveillance (Barber 1998:577, 578).

In the light of such reconfigurations of traditional concepts as described above it is fashionable to speak of the establishment of an information society when describing the effects of the information revolution. The information society is then defined as "an advanced, postindustrial society of a type found most commonly in the West. It is characterised by computerisation and large volumes of electronic data transmission, and by an economic profile heavily influenced by the market and employment possibilities of information technology" (Martin 1988:37). Post-industrialism is the idea that services have replaced manufacturing as the dominant economic activity, just as the agrarian society evolved into the industrial society when focus shifted from agriculture to manufacturing. A key feature of the information society is then that knowledge and information are supplanting capital and labour as key production factors in the economy. Consequently, ownership of information means power for those who own it (Lyon 1988:3). An information society is further characterised by the following properties (following the criteria that Martin (1988:40) sets out for the development of an information society):

- Information technology as the key enabling force, that is, widespread diffusion of information technology in offices, factories, education and the home.
- On the societal front, widespread information consciousness and end-user access to high-quality information; thus, information as an enhancer of the quality of life.
- On the economic front, information is a key economic factor whether as a resource, service, commodity and/or a source of added value and employment.
- On the political front, freedom of information that leads to a political process of increased participation and consensus.
- On the cultural front, recognition of the cultural value of information through the promotion of information values in the interest of the development of the nation and individual.

In essence then, the information society is one in which the diffusion of information devices has brought about comprehensive implications for business methods, design and manufacturing techniques and the way in which people go about their everyday life, albeit interaction with others, travel, entertainment, doing business or obtaining information (Saxby 1990:3).

The concept 'information society' is problematic, however, in that it confines the effects of the information revolution to the so-called info-rich societies. The info-rich societies are those that have access to IT and the opportunities it provides, as opposed to the info-poor societies. In the info-rich societies there may be info-poor people who do not personally have access to information devices to the extent that other people have. But, the concept information society provides the scope to study the effects of the information revolution on those at the information periphery of the info-rich societies. It does not, however, provide the scope to study the effects of the information revolution on info-poor societies.

Info-poor societies are those societies "currently outside the wealth-creating countries of the northern hemisphere and the Pacific Rim" (Haywood 1995:ix). These societies are, to begin with, not in the post-industrial phase of development. In fact, some areas of these countries are not even in the industrial phase. One way of distinguishing info-poor societies from info-rich societies is to compare the number of Internet users by geographic location as is done in Figure 4.1.

Figure 4.1. Internet users by location, 1998
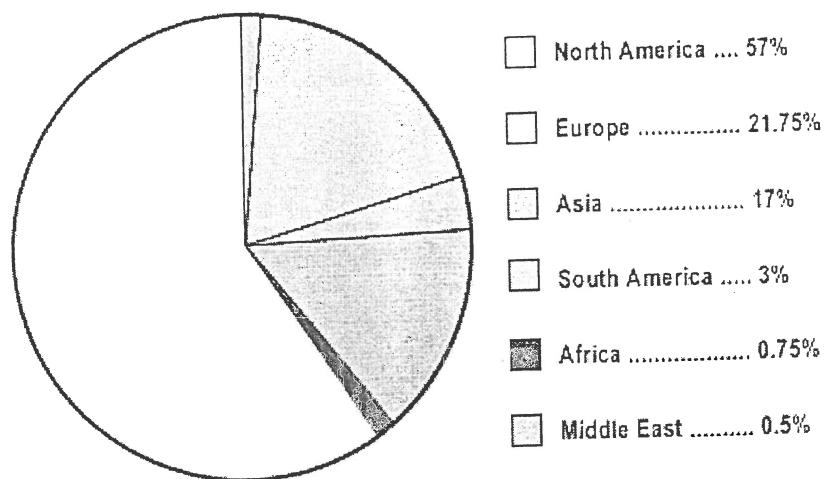
Source: www.nua.ie/graphs_and_charts (in Industry Trend or Event 1999:62).

It is clear that most Middle Eastern, African and South American countries show very little, if any, of the features characterising an information society. Despite this, the information

revolution has distinct implications for these countries. For example, the national security considerations of info-poor countries (like those of info-rich countries) have changed with the development of global positioning systems and satellite surveillance even though the info-poor do not make use of these technologies themselves. In the same sense the impact that IT has on the global economic system, increasing for example capital mobility to levels unprecedented, impacts profoundly on info-poor countries' economies. The broadcasting of images throughout the world instantaneously and the mobilisation of the international community on a much larger scale than ever before have also impacted on the info-poor societies even though they do not satisfy the criteria of information societies.

Because of the limitations of the concept 'information society', it is perhaps better to use the analogy of a global village when describing the nature of the information era. This analogy dates back to 1967 when McLuhan and Fiore first used it, predicting that the developments in IT will make a world possible where one can increasingly know things and do things that were previously only possible in a small village. The analogy allows for examination of the global effects of the information revolution, that is, how both info-rich and info-poor nations are affected by IT whether intended or unintended.

More importantly, the global village analogy does not make the modernist assumption that the info-rich and info-poor countries are at extreme poles of a development continuum and that the latter will imitate the development path of info-rich societies as they acquire IT and connect to the global information network. As the information revolution spreads to other parts of the globe, it is important not to extrapolate from Western experience, but to study how the hermeneutic dimensions of IT (that is, social meaning and cultural horizon) change or are changed in different societies. The global village is thus not homogenous, but can be thought of as consisting of different 'neighbourhoods'. Although these neighbourhoods are still part of the global village, their experience of the information revolution may differ from one another.

In this context, it is important to note that the West and especially the US has been at the forefront of the information technological revolution. IT has thus largely been developed under a cultural horizon where the values of political and economic liberalism dominate. The effect of this cultural horizon is particularly evident in the nature of the Internet, which

is largely free of government control whether in terms of content, taxation or other forms of regulation. There have also been successful movements to keep it that way in the United States. Re-routing, filtering and surveillance attempts by the US government have been countered by users of the Internet, keeping the values of freedom of speech and privacy intact in the technology. The question is whether IT is a vector for these values when it is exported to other countries or whether it is adapted to the cultural horizon of other societies. This will be one of the themes explored in the next chapter when the impact of the information revolution on democracy is examined.

6. CONCLUSION

The advent of the information era, brought about by the information revolution, has changed the context within which fundamental issues such as democracy and world peace exist. Keeping in mind that the information revolution is all but exhausted it will only be with hindsight that the nature of the information era can be sketched with any kind of certainty. Nevertheless, this chapter identifies some of the changes in society that have been experienced as a result of new IT. This has been done while taking cognisance of the different theories of technology, which inevitably inform discussions about the nature of the information era. Based on an integrated theoretical approach, the world of the information era is described as a global village consisting of info-poor and info-rich 'neighbourhoods'; where the notions of space, hierarchy and wealth need to be re-evaluated; and where IT affects people directly (to the extent that they have direct access to IT in their everyday lives) or indirectly (through the globalisation of financial markets and media).

With respect to international relations IT can be compared to nuclear weapons that changed the setting (or arena) of international relations after 6 August 1945[13] to such an extent that theories had to be reviewed and adapted to a new reality. The difference is that IT arrived on the international arena more gradually and unlike nuclear weapons, which largely affected the security of states the implications of the information revolution have manifested themselves more explicitly on all the terrains of international relations. The actors, issues and processes that constitute the elements of International Relations theories are affected by IT. Democratic peace theory is no exception. To evaluate the plausibility of

the democratic peace as an approach to world peace in the information era, the impact of IT on the core elements of democratic peace theory needs to be explored. Democracy is one such a core element. The direct and indirect implications of the information revolution for democracy will be the subsequent focus of the study.

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[13] On 6 August 1945 the first atom bomb was dropped on Hiroshima.

CHAPTER 5

DEMOCRACY IN THE INFORMATION ERA

1.   INTRODUCTION

The impact of IT on democracy involves a complex interplay between its design, its use and the environment in which it is deployed. In terms of design the Internet in particular seems to have strong democratic proclivities. It reflects a vast forum that encourages many-to-many interaction around the world. It is decentralised and therefore individuals using it can bypass gatekeepers and control the flow of information and goods. In addition, the Internet's non-proprietary nature (in the sense that nobody owns the protocols that make up the Internet) suggests a degree of openness and public purpose (Shapiro 1999:14). It is not difficult to see the Internet as a vector of democratic values that can be used to liberate citizens in authoritarian governments, to improve democratic participation in existing democracies or to create a transnational democratic culture (three claims that will subsequently be analysed). However, design is not unchangeable, uniform or used in the same good faith. This makes it important to explore who controls IT and for what purpose (or stated differently: who does not control IT and which purposes are not privileged), a debate that has largely revolved around the state, the market and society's role in the global village. This debate also leads to a re-examination of the claims to democracy in the information era within the context of the digital divide.

2.   ENHANCING DEMOCRACY IN THE INFORMATION ERA

Democracy in the late twentieth century has been characterised by two trends. The first is a series of transitions to democracy that Huntington (1991) referred to as the Third Wave of democratisation. The second trend has been called the crisis of Western democracy and is related to the lack of political participation and the domination of democratic processes by special interests in Western political systems. IT, it is argued, impacts on both these trends in ways favourable to democracy. IT has also played a role beyond enhancing national

democracy by facilitating transnational networking to such an extent that scholars refer to a globalisation of democracy.

Huntington (1991:9) defines democratisation as the transition from authoritarianism to democracy. Democratic transitions involve two processes. On the one hand, the non-democratic government abdicates or is overthrown and a democratic government is installed through free and fair elections. On the other hand, a broader transformation process takes place that involves creating a democratic political culture. The latter process commonly commences before a democratic government is installed, serving as a push factor for democratic transitions, and usually continues after the installation of a democratic government. The information revolution impacts on democratisation by facilitating both these processes and doing it in the following ways:

Facilitation of pro-democracy and dissident movements: Since the onset of the Third Wave of democratisation dissident movements have used IT to overthrow or counter non-democratic governments. Personal electronic media, such as fax machines and videocassettes, were used in the mid-1980s in the Philippine revolution to oust the Marcos regime and in Panama against the Noriega regime[14] (Ganley 1991:9-11). However, the 1989 pro-democracy movement in China remains one of the best examples of how IT was used to counter non-democratic governments during the early stages of the information revolution. Students made extensive use of video and audio cassette recording, photo copying, faxing and telephoning, and for the first time, a vast computer network was employed to further their cause. BITNET, an academic network linking US, Canadian and Mexican universities, was connected to EARN (an academic network in Western Europe) and ASIANET (a network in Japan and the Pacific basin). It was on the bulletin boards of BITNET that Chinese students across the United States as well as students from Europe and Asia posted their outcries against the Chinese government. BITNET also served as an organisational platform where pro-democracy supporters set up telephone, fax and letter-writing brigades. These were used to supply and co-ordinate news and messages, exchange Chinese fax numbers, keep lists of the dead and wounded of Tiananmen Square, make arrangements to

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[14] In the case of the Philippines disguised Western and Japanese news content was spread through fax and copying machines. In the case of Panama, the Panamanian News Center in Washington D.C. used Apple computers to translate Western newspapers when President Noriega closed down independent radio stations and newspapers in 1987. These translated articles were laid out to look like news clips and faxed to businesses and corporations where they were photocopied and distributed by sympathetic distributors (Ganley 1991:9-11).

lobby Washington, mobilise international public opinion and arrange to get equipment for communication to protesters (Bumbaugh 1990:2, 3). The coverage of the Tiananmen Square events by television and radio both in China and abroad added to the effective mobilisation of public opinion and support for the pro-democracy movement.

Today, the Chinese pro-democracy movement is using the Internet[15] in its full capacity to undermine what they refer to as the two pillars of an autocratic society, namely monopoly and suppression. Tunnel (www.geocities.com/CollegePark/Union/1761/tunnel.html), a Chinese-language journal of dissent is edited and maintained in China, but when it is ready to go online, it is secretly delivered to the United States and then emailed back to China from the anonymous noby@usa.net. The staff and contributors stay anonymous by writing under pseudonyms and being hidden in cyberspace. The Dalai Lama also uses the Internet from India to promote his case against Chinese occupation of Tibet (Dobson 1998:19).

Other cases of dissidents using the Internet to mobilise and organise their pro-democracy movements abound, for example the Free Burma Coalition (http://www.freeburma.org), Indonesian dissidents against Suharto (http://www.indopubs.com), the Free Vietnam Alliance (http://www.fva.org) and Sam Rainsy, the Cambodian pro-democracy leader (http://kreative.net/knp). In all of these cases, the Internet is used as a medium to discuss taboo subjects such as corruption and military (or government) misconduct, to inform and mobilise public opinion both domestically and abroad and to organise campaigns against the government (Eng 1998:20, 21). In some cases the Internet is not so much used as a tool for insurgency, but more to focus attention on low-intensity, regional conflicts between people and their government. In Chiapas (Mexico) the Zapatista movement does not have any hope of overthrowing the Mexican government, just as women whose human rights are grossly violated in Afghanistan cannot overthrow the Taliban even by mobilisation through the Internet. Their Internet activities can, however, draw attention to local conditions and problems and if they mount enough international pressure, their governments may be forced to address their problems (Lutz 1999:1).

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[15]Although there is only reference to the Internet here and in the rest of this section it important to keep in mind that the Internet incorporates a broad range of information technologies (for example computing and telecommunications).

The Internet has several distinct characteristics that make it suitable for dissident purposes. Firstly, it is possible to hide the identity of the dissident. In the case of Kosovo, Anonymizer (a US IT company affiliated with human rights organisations) set up the Kosovo Privacy Project, which allowed Serbians, Kosovars and others reporting on the situation in Kosovo, to download tools to hide their identity when emailing, accessing information or joining discussion groups. Secondly, the Internet has all the audio-visual qualities of television, radio and newspapers combined. For example, in Belgrade an independent radio station's transmitter was linked to a British Broadcasting Corporation (BBC) satellite and transmissions were resent from there all over the world, including 35 other independent Serbian local radio stations. Thirdly, encryption technology, which can be downloaded for free from the Internet, makes it difficult for dissident messages to be intercepted. In the case of Belgrade tunnel encryption was used to hide the radio channel, making it invisible from the outside. Fourthly, key to the Internet's ability to further dissident causes is the fact that it is not mass media in the traditional sense of "one-to-many" like newspapers, television and radio, but "many-to-many". It allowed friends and family to report on their situation from Kosovo to relatives and acquaintances abroad. These means of communication are often seen as more credible information sources than Western media reports (Time International 1999:1).

Cumulatively these characteristics of the Internet make it a difficult medium to bring under government control. Governments can try to block access to certain sites for example, the Chinese government has blocked access to such sites as Human Rights Watch, the *New York Times* and *Playboy* or to require anybody who sign up with an Internet Service Provider (ISP) to register with government security agencies. In China unregistered Internet cafes are shut down and monitoring equipment is installed on all of China's major sites (Pomfret 2000:26). Similarly, in Burma (Myanmar) unauthorised possession of a computer with network capability is punishable by as many as 15 years imprisonment. These efforts are, however, not insurmountable challenges. It is for example, still possible to access prohibited sites periodically as the dozens to hundreds of 'hits' received from China each week indicate. Furthermore, Chinese Internet surfers reportedly get around the electronic barriers by linking up to computers outside of China (Dobson 1998:19).

The economic cost of stifling IT in an information era: Most authoritarian governments realise that they face a real dilemma in the information era, namely that blocking access to IT comes with economic costs. To deny free communications is to be excluded from the global economy. The more freely and widely available, the greater the effect of modern information systems on productivity and competitiveness (Builder 1993:163). This is best illustrated by Dobson (1998:19) who writes: "The only thing authoritarian Asian countries need to fear more than freedom of expression is further economic trouble, and Beijing must surely be aware that the countries that have best weathered the Asian financial crisis have been those with real-time access to news and financial data. And so, at the same time that it tries to limit citizens' access to the Net, Beijing has designated information technology a "national pillar industry" and is spending tens of millions on Internet hubs across the country."

The economic cost and unsuitability of a closed society to the "informationalism" that the present era requires are best illustrated by the extremity of electronic technological and economic backwardness that the former Soviet Union has experienced since the 1970s (Kaffka 1999:1). In a detailed analysis of the collapse of the Soviet Union from an information technological perspective, Castells and Kiselyova (1995) describe how the respective development paths of IT in the West and the Soviet Union split during the 1970s. The latter was placed on a trajectory of technological retardation precisely when the United States and Japan were experiencing accelerating technological innovation. This "distortion" in the up to then equal competitive nature of the technological race between East and West is attributed to the very nature and origin of the information revolution, which was inherently incompatible with the industrial-military complex and bureaucratic principles on which the Soviet system based technological policy. Military interests took precedence over other uses of computing. Inasmuch as the military feared that developing computer science in isolation from the rest of the world would endanger national security, it transferred computing technology from the West overtly and covertly, and by reverse engineering reproduced and adapted Western models (Castells & Kiselyova 1995:31, 31).

This led to large scale technological dependency and a 20 year lag exacerbated by the fact that Western firms were compelled to compete with their counterparts at home and abroad. The Soviet technological innovation rhythm, on the other hand, was dictated by military

procurement procedures and a command economy emphasising quantity over quality. The rigid separation between scientific research and industrial enterprises on the terrain of IT at a time when horizontal linkages between different technological fields, especially telecommunications and computing, resulted in an information revolution, set the Soviet Union further back.

Ultimately, ideological repression and information control led to a lack of scientific cross-fertilisation among researchers and between researchers and the outside world. The constant KGB (Soviet Intelligence Agency) presence in research centres, the filtering and controlling of the diffusion of research findings and the fact that the very idea of a *personal* computer was subversive to the system, were contrary to precisely that which led to the information revolution and affluence in the West (Castells & Kiselyova 1995:37, 38). Gorbachev was forced to employ his policy of *perestroika,* which eventually destroyed his regime precisely because "a closed society was bound to fall further and further behind in an information age" (Freeman 1993:2). In the case of Russia, this meant that IT indirectly facilitated democratisation as it forced the Russian government to open the system if it wanted to share in the benefits of an information society.

The cases elaborated on above are not definitive proof that there is a positive relationship between the information revolution and the number of democracies in the world, but it does seem to suggest that IT can be used to facilitate democratisation. This can be seen by both the direct use of IT by pro-democracy movements to further their cause as well as the indirect impact IT has on closed societies by offering access to abundant information. Once installed, democracy needs to be consolidated. In this regard valuable lessons can be drawn from the ways in which IT has been used to improve the quality of democracy in Western countries.

Western scholars have largely focused on the qualitative dimension of the relationship between IT and democracy, especially the ways in which IT can be employed to overcome the deterioration of Western democracy. This phenomenon, referred to as the crisis of Western democracy (Hacker 1996:215) or the failure of the modern democratic project (Simonds 1989:182), manifests itself in:

- voter apathy, which steadily increased after the World War II, indicated by citizen abstention from elections;
- a decline in party membership and active participation in fund-raising and political meetings; and
- an increasingly uninformed citizenry, detached or even hostile towards politics.

A crisis of democracy develops when the necessary conditions for a democracy are endangered and this has been happening for two reasons. Firstly, citizens neither have sufficient knowledge about political issues, institutions and processes to participate actively in politics, nor a significant input in government decision-making. Secondly, citizens feel disconnected from their governments in terms of meaningful communication and this leads to distrust of political leaders (Hacker 1996:215). The blame for this state of affairs is put on the lack of public space or public spheres where citizens can freely deliberate on and debate common issues. Existent public spheres are said to be "commercialised, spectacularised, trivialised and colonised" by the state, political parties and the media (Bryan, Tsagarousianou & Tambini 1998:4). The apathy that ordinary citizens feel is thus not so much a function of being uninterested in political affairs, but rather a feeling that they have no impact on important debates (political efficacy) in a public sphere dominated by a political elite of politicians, lobbyists and journalists. According to Hacker (1996:216) more information about real issues, open discussions and channels to political leaders, are fundamental in restoring the faith of the citizenry in their ability to influence debates, their sense of belonging to a community and their potential to act in their own interest. There is widespread optimism among scholars that the information revolution provides ways in which precisely this can be done.

The impact of the information revolution on the quality of democratic government can be understood in an economic-administrative way and/or a political-democratic way (Coleman 1999:18). In the former sense, the use of IT to deliver existing government services more efficiently is at stake. Many government agencies across the world create websites that offer easier ways for citizens and businesses to use local government, whether to renew drivers'

licenses or business permits. This is an example of so-called e-government.[16] Another example of IT being used to improve democratic government is electronic or Internet voting. The first binding votes cast of this sort in the United States was done on 7 to 11 March 2000 in the Arizona Democratic primary. Registered Democrats were sent a personal identification number (PIN) in the mail and using any web browser they could access the website of the company managing the electronic election (Election.com) or the Arizona Democratic Party. By filling in the PIN and a number of other security checks such as date of birth and social security number, voters went to a web page with candidates names and after choosing one, received a confirmation number (Ledbetter 2000:116). The Internet Voting Technology Alliance, a group of 50 companies, election officials and individuals formed soon afterwards. It aims, by holding discussions and helping the government set standards for this new medium of voting, to stem fears that the technology for on-line voting is not secure enough (Wasserman & Perine 2000:122). There was a sudden sharp increase in interest in electronic voting as a disputed Bush presidency emerged from Florida. The presidents of the California Institute of Technology and Massachusetts Institute of Technology agreed to undertake a joint initiative to canvass voting methods, including electronic voting.

Although several other IT initiatives exist to increase the speed, accuracy and efficiency of public services, it is the political-democratic way of using IT to improve the quality of democracy that addresses the questions of most relevance to this chapter. A starting point for evaluating the political-democratic impact of the information revolution would be to clarify what is perceived as an improvement in the quality of democracy. Some have argued that an improvement would be a shift toward direct democracy. Others have argued that representative democracy should be improved and still others have proposed a middle way where direct and representative democracy will meet in a system of deliberative democracy (Barber 1998:584). These claims will subsequently be explored.

Direct democracy is viewed in the Athenian sense, a notion that dates back to the city-states of Athens and Sparta when eligible citizens (slaves and women excluded) came together in the city squares to debate and vote on issues of importance to the city-state's welfare.

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[16] E-government can de divided into three categories, namely government-to-government, government-to-citizen and government-to-business transactions (Wasserman & Perine 2000:120).

Aristotle already identified limitations of direct democracy, namely that it is only plausible in a political system small enough to allow all eligible citizens to gather in one place to hear a speaker. Therefore modern democracy subscribes to a system of representation where elected representatives administer government on behalf of the people (Snider 1994:15). The "distance-shrinking" and interactive nature of IT has the potential of making the size limitation to direct democracy obsolete. By using electronic media, an Athenian square can well be simulated in modern democracies and this has led to a re-consideration of notions of direct democracy (Wriston 1997:7).

One of the proponents of direct democracy is Ross Perot, who gleaned an unexpectedly large number of votes as a third-party presidential candidate in the United States in 1992. He made use of so called electronic town halls, where people used interactive television to participate and air their opinions on national issues. He promised to continue these electronic forums when he became president so as to keep his finger on the nation's pulse (Rothkopf 1998:354; Wright 1995:39; Dutton 1992:505). A more recent experiment of the vision of direct democracy in the information era is vote.com, a website set up by a former political consultant for President Bill Clinton, Dick Morris. American citizens can express their views on the "referendum of the day". Each day an issue is placed in the form of a question and visitors can click to agree or to disagree. The results of the referendum are sent as email to the White House (Williams 2000:94). For Morrison, democracy in the information era would mean citizens voting on a keypad ballot wherever they were, whenever a qualified issue was posed, rather than having to wait until election day to vote (Grossman 1996: 207).

Wright (1995), Fishkin (1992) and Grossman (1996) argue that the information era has in many ways already brought about a shift towards direct democracy in the United States and other Western democracies, manifested in the following ways:

- a 4 000 percent increase in the use of public opinion surveys and polls;
- the expanding use of direct primaries in the United States and the decline of political conventions;
- the increase in state and local ballot initiatives and referenda;

- the decline in traditional political intermediaries, such as the political party and the labour union;

- the devolution of power from central governments to more local tiers of government;

- the changing nature of leadership where the capacity to persuade the public is seen as an essential trait;

- the changing nature of courts which, once immune to public pressure, now allow cameras in the court room, enabling lawyers and prosecutors to try to influence public opinion; and

- the changing nature of the press, the influence of radio and television call-in shows, the use of the Internet and talk-back journalism inviting the public to "chat" about an issue.

This shift towards direct democracy is best illustrated by politicians' hesitance to make moves on major issues without "first taking the public's temperature" (Grossman 1996:207). This is done through the numerous faxes, phone calls and email that inundate legislative and party offices, opinion polling and the websites of political parties, representatives and governments. Scholars are cautious of this type of direct democracy in the information era, for several reasons, namely:

Techno-populism: Madison, one of the writers of the Federalist Papers on which the US Constitution is based, early warned against the danger of popular "passions" and fickle opinion. The fear exists that electronic democracy in its direct form would be "a democracy that embodies majority opinions assembled from the unconsidered prejudices of private persons voting private interests" (Barber 1998:585). A direct democracy as envisioned above will not afford enough checks and balances to avoid a tyranny of the majority or what Coleman (1999:18) calls "plebiscitary authoritarianism". The judicial arm of government is the final and often the only check on majoritarianism in a direct democracy, and even the courts' power to fulfil that function may be limited by cameras in courts and inflated public opinion (Grossman 1996:208). This can endanger minority rights and freedoms. A case in point was the passing of a ballot initiative that would prohibit any community in Colorado (US) from giving special privileges to gays and lesbians. The highest court of Colorado determined that the initiative was unconstitutional and thereby spoke directly against the

will of the majority, exposing the court to pressure, especially in Colorado where judges are elected and not appointed.

Single interests: There is also the peril of single interest politics displacing the ideal of the "common good". The information era has loosened the concept of community from its geographical connotations. It is argued that individuals can now retreat from interaction with people whose ideas and attitudes are not similar to their own to create like-minded cybercommunities on a particular issue. Direct democracy in the information era may lead to individuals losing sight of the bigger picture, the needs of their geographic community and the value of deliberative decision-making, and vote only to satisfy their private interests (Grossman 1996:207, 208).

Immediacy: The near-instantaneous communication that IT makes possible puts pressure on decision-makers to act promptly, without second thoughts. Instant responses lack deliberation and could become outlets for emotional and ill-judged actions (Wriston 1997:7). According to Barber (1998:585) "in politics, fast is often bad, slow sometimes good". Direct democracy in the information era runs the risk of having voters make instant "consumer-like" choices about complex issues. This is precisely the criticism that Dick Morris's "vote.com" attracted.

Media control: Those who control the media may use it to manipulate public opinion. A case in point is when Italian media magnate, Silvio Berlusconi, decided to start his own political party, won the national election and became the Italian president. He had financial control of the three private television networks and many newspapers and magazines, as well as the biggest advertising agency (Grossman 1996:208).

Given these caveats, there is some scepticism that direct democracy would be improving democracy in the information era.

Representative democracy is democracy rooted in the election of accountable deputies who do the real work of governing. Representative democracy developed primarily because of the impracticality of direct democracy in a modern state (Hacker 1996:226). In its elitist form, representative democracy assumes that people, especially those at the lower end of

society, do not have enough knowledge and concern to be of relevance to everyday political decision-making. The average person does not have the time, ability or inclination to acquaint him-/herself with issues or candidates. Well-defined interest groups should, therefore, compete for power and advocate on behalf of the average person (Snider 1994:16). Interest groups are suppose to mediate the input of people in decision-making by seeking majority support for their particular and partial interests through bargaining, trade-offs, coalitions and compromises on the political terrain. It is precisely this kind of elitism that contributed to the crisis in Western democracy. IT is used in the following ways to make representatives more accountable to the people and facilitate communication of their needs to their representatives to ensure better representation (Bacard 1993:42,43):

Public access to government data: There is a general movement towards easing accessibility to information both in the news media and by governments. News agencies are increasing the speed and scale of their information provision, while giving citizens greater control over the information they want. In the United States, the National Information Infrastructure (NII) Agenda for Action makes provision for easy and equitable access to government information and in Italy a new law on the need for transparency underlay the creation of a civic network (Bryan Tsagarousianou & Tambini 1998:6). Government and the news media are often working together by broadcasting the deliberations of government bodies, such as the C-SPAN channel in the United States and Parliament On-line in South Africa (SA).

Grass roots networks: IT has made it easier for groups to organise on a local, national and global scale. Lobbying is more egalitarian because it is cheaper to mobilise support for a movement (Wright 1995:42). It is thus easier for those groups usually marginalised in the political process to convey their sentiments to their representatives.

Public feedback to government: Through faxes and email, citizens can contact their representatives. The Public Electronic Network (PEN) system of Santa Monica, California, for example, included a mailroom, which allowed citizens to send messages to all city departments (Doctor & Dutton 1998:129).

These measures may prove to be a step away from elitist representative democracy and more equitable access of interest groups to the system, but there are still inherent caveats, namely:

A lack of public deliberation: The access to government information and electronic feedback do not imply true political interactivity. Sending email to a representative who sends a standard letter back 'saying it is good to hear from you' is not interactive or deliberative (Hacker 1996:227).

A lack of communitarian decision-making: Interest group activity is by nature focused on private rather than common interest and though IT has provided a more equitable platform for organisation, interest politics still implies group warfare for scarce resources as opposed to reaching communitarian goals (Abramson 1993:30).

According to Abramson (1988:27), the moral case for democracy lies in the "sovereignty it bestows on the people, the freedom it gives to as many persons as possible to participate as directly as possible in the affairs of government". The fact that political decision-making is increasingly complex and involves specialised issues does not mean that experts should monopolise the political terrain. It means that experts should be able to convince the ordinary citizen of their arguments in a lay person's terms as a lawyer or prosecutor would convince a jury (Hacker 1996:226). A Jeffersonian argument can be made, namely that the inadequacies of democracy are best remedied by more democracy and civic incompetence is not a reason to disempower citizens, but empowerment a remedy to redress incompetence (Barber 1998:584). Bearing in mind the perils of a plebiscitary form of direct democracy in the information era, scholars such as Coleman (1999) and Barber (1998) suggest that the dichotomy between direct and representative democracy should be relaxed, to allow for deliberative (also referred to as communitarian or participatory) democracy. Any advancement to this kind of democracy that the information era can bring about is deemed an improvement in the quality of democracy.

Deliberative democracy brings the best of both direct and representative democracy together inasmuch as it allows for more participation but assumes more deliberation among citizens. Deliberative democracy goes beyond the direct and representative democracy that

is possible in the information era, because it "calls not only for votes but for good reasons: not only for an opinion but for rational argument on its behalf" (Barber 1998:586). It implies politically competent citizens who deliberate and make informed decisions and it allows more time to elapse, thus preventing decisions being made in haste. The following aspects are important when deliberative democracy is pursued:

Public sphere and civil society: The idea of a public sphere denotes a place where citizens can freely engage in deliberation and public debate, where they can formulate their political identity and express their political will (Tsagarousianou 1998:52). IT is widening and opening up 'publicness' through creating such public spaces, which are not dominated by the state or mass media. Politics depend on the existence of public spaces and forums to which everyone has access. It is here where conflicts and demands can be expressed in ways that the usual inflexible representative institutional framework of state institutions and political party systems does not allow. This increases the scope for communitarian action. Individuals do not only choose what is to their personal benefit, but through deliberation in the public space will come to know what is in the common good and make decisions to realise it (Hacker 1996:222).

Interactive communication: To achieve greater understanding there must be true interactiveness when humans communicate, in other words, a recursive type of message exchange. This is referred to as message dependency where messages are sent in direct and indirect responses to one another. In conditions of high interactivity, communication roles may be interchangeable and thus power is equalised. Interactive approaches to political communication expand the public sphere and decrease the elite sphere of power and influence. IT should thus be used to transform linear political communication into two-way upward-downward and lateral communication (Hacker 1996:227, 219).

User-control media: The mass media has been blamed for much of the undeliberative nature of Western democracy in the past. But the interactive nature of IT has helped to overcome the once "smokestack" model where citizens were merely bombarded with messages that they could choose to pay attention to or ignore. On-line versions of newspapers, for example, have 'talk-back' functions where readers can comment on an article and on comments by other readers in an interactive way. Neuman (1996:8) states that

the mass media is complemented by the fact that "new developments in horizontal, user-controlled media [allow] the user to amend, reformat, store, copy, forward to others, and comment on the flow of ideas".

The following examples of electronic democracy projects highlight how IT is consciously employed to bring about deliberative democracy:

UK Citizens Online Democracy (UKCOD): In 1996 the UKCOD, a non-partisan service offering a virtual space for public information, deliberation and consultation was established. It was an experiment in electronic democracy, funded by charitable support and staffed mainly by volunteers. It includes projects such as on-line consultation with citizens about council tax, on-line conferencing on European monetary union with key UK players, an election forum where candidates were asked questions by the public, and a site established to inform and extract response about the UK government's White Paper on the freedom of information bill (Coleman 1999:20, 21). The value of UKCOD is that it serves as a model for governments that want to use IT for interactive public deliberation and participation.

Neighbourhoods On-line: Neighbourhoods On-line is an Internet resource centre in the US jointly established by the Institute for the Study of Civic Values in Philadelphia (US), and a local community network called "LibertyNet". The main goals of the project are:

- to maintain a website that informs citizens about programmes, issues, and political developments related to neighbourhood empowerment;
- to help civic organisations and service agencies to get access to the Internet, teach them how to use email and the World Wide Web (WWW); and
- to develop email lists with the aim of creating networks of neighbourhood activists who are motivated to work for common economic, social and political goals (Schwartz 1998:114).

The real value of projects such as Neighbourhoods On-line is that it uses the Internet for local projects. Fears that the Internet poses the danger of drawing citizens into global

communities while they neglect their local ones, are hereby addressed (Davidow 1997:S134).

The Digital Cities Project: In Amsterdam (The Netherlands) a project was launched in 1994 by an independent political-cultural centre, De Balie, and a group of former computer activists, the Hacktic Network Foundation (now called XS4ALL). It constructed a virtual city where information providers have different theme-based squares, for example an environmental square, a news square, a health square, a book square and a gay square. Each of these squares has eight buildings occupied by information providers and citizens can build "houses" (homepages containing personal or other information) between the squares. In the public spaces of the squares citizens can have discussions. The project aims to use the city metaphor, a true-life frame, to:

- initiate and stimulate public debate between citizens and between citizens and local government in electronic discussion groups;
- create a platform for distributing local government, public and administrative information;
- assist/support citizens and civic groups to post their information electronically;
- stimulate citizens rights and obligations on the Electronic Highway and to look after the interests of consumers;
- provide opportunities for and connection between projects and information providers both nationally and internationally;
- develop instruments which would enable users to obtain access to information services; and
- maintain and expand contact with international community networks (Francissen & Brants 1998:23).

The Amsterdam Digital City was such a success in terms of people registering as "inhabitants" and visitors, that there are today some 70 digital cities in the Netherlands. Despite the non-committal nature of discussion groups and the often, racist or other bigoted contribution, the digital cities have become an Athenian-style agora where people come to buy things as well as exchange ideas (Francissen & Brants 1998:39).

Network Pericles: Launched in 1992 in Greece and developed by researchers based at the Communication and Media Laboratorium of the National Technical University of Athens, Network Pericles is a communications network aimed at enabling citizens to participate directly in the political process of their local authority or region. This is done through:

- citizens' initiatives which are electronically submitted by citizens for debate and voting through a system of motions that need to be seconded by a predetermined percentage of citizens;
- binding or consultative referenda on issues submitted by other citizens or put to the electorate by government; and
- recall, removing elected officials.

Maintenance of the public sphere and marginalisation of the possible privatising/individualising effects of computer mediated communications (CMC) are also goals of the Network. These are attained through provision of information on issues and facilities for citizen conferencing. Users of the network are given equal space and time to argue their case and to respond to other arguments (Tsagarousianou 1998:42-47).

Similar projects have been erected in many other European and North American cities. These projects can only be successful in enhancing democracy if citizens in the area have universal access to it. In Bologna (Italy), the civic network project is moulded within the framework of connectivity being a universal right of all citizens (Tambini 1998:84). In the absence of universal access, most electronic democracy projects are not antagonistic to representative democracy, but strengthen the institutions of representative democracy through enabling those who govern on behalf of citizens to know public attitudes and opinions.

So far the concept democracy has been used to refer to a form of government within the boundaries of the state. The process of globalisation has, however, introduced questions of governance and democracy on a global scale. IT is said to provide many of the benefits it does for national democracies on a transnational scale. In fact, it is argued here that IT

advances two processes, which set the stage for the globalisation of democracy, namely the globalisation of civil society and citizenship and the globalisation of public spheres.

Some theorists emphasise the opportunity that globalisation provides for a "universal community of mankind". The notion of an international society, starting with the creation of the UN, has been reinforced by the rise of issues that are global in nature (for example global climate change, human rights, refugees and international drug trafficking) and the increase in international governmental and non-governmental organisations. The role of information and communication technologies has been crucial in the development of global thinking and the transnationalisation of civil participation (Serra 1996:222). In this regard Giffard (1996:198) explains how the Association for Progressive Communications (APC)[17] played an essential role in facilitating the exchange of information and ideas during the Rio Earth Summit in 1992. Environmental groups used the network to share information on the preparatory meetings, the Summit itself and the Global Forum. Moreover, the focus of the network was more co-operative in solving environmental problems than quarrelling about regional differences.

Networking is used to portray a synthetic view of those relevant actors who work nationally or internationally on an issue and are bound together by shared values, a common discourse and dense exchange of information and services (Cleaver 1999:2). The metaphor of networks to explain global civil society is sometimes interpreted too restrictively as referring to formal non-governmental organisations only. NGOs are but one part of a much more general and fluid civil society where organisation does not necessarily take the form of identifiable organisations, but of sometimes increasing and sometimes decreasing points of contact. In this regard Cleaver (1999:13) prefers the metaphor of water, particularly the ocean with its ceaseless currents "… now moving faster, now slower, now warmer, now colder, now deeper, now on the surface" to refer to civil society. He asserts (1999:13) that "(a)t some points water does freeze, crystallizing into rigidity, but mostly it melts again, undoing one molecular form to return to a process of dynamic self-organization that refuses

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[17]APC was set up in 1990 when several smaller nets (Econet, Peacenet, Conflictnet, Greennet and other Internet service providers) joined together. It has become a worldwide network of networks linking peace, environmental, human rights and social organisations and has been the centre of a number of global and regional campaigns (Ingram 1999:6).

crystallization yet whose directions and power can be observed and tracked. Thus too with 'civil society'."

Hence, the Internet goes beyond globalisation of NGOs and movements of solidarity, to facilitate grassroots democracy among a global public by creating a global public sphere where citizens, irrespective of their nationality, can communicate. Sreberny-Mohammadi (1996:12) writes: "The Internet, with its guestimated 60 million users, is as of yet the largest public global conversation. Topics include the prurient and the political, the religious and the racist, an open space for progressive and nondemocratic ideas alike". The Internet provides a place where individuals and interest groups can freely express their views and where ideas can compete, which is an expression of democracy (Alleyne 1994:413).

Globalisation of democracy does not only revolve around creating spaces where a global citizenry can deliberate public issues, but also involves ways in which citizens can influence the outcomes of public issues. International financial institutions, which are largely regarded as being beyond public (and state) scrutiny, have come under public attack during the World Trade Organisation's (WTO) trade negotiations round in Seattle in 1999. Protesters, organised by making extensive use of the Internet, raised their grievances about international trade. A similar movement was organised for the 2000 IMF and World Bank (Bank of Reconstruction and Development) summits in Washington. The World Bank subsequently held an Internet conference on globalisation where people could voice their ideas and grievances. Although this process does not imply any legal sanctions of IMF or World Bank actions and is often described as co-optation of civil society, it is a step towards greater public participation in the policies of international organisations previously beyond the public's reach.

Serra (1996:223) voices an important view on the role of the mass media in globalising democracy. She states that "government policymakers still rely on the media, especially quality newspapers, as sources of information about world affairs, thermometers of international opinion, carriers of their messages to the general public, and means of communication between other elites." This may be problematic for reasons of political-economics, namely corporate control of content or the so-called "deep profound crisis" of journalism (McChesney 1997:71), which will be returned to subsequently. In a study of the

coverage by four news agencies of the Rio Earth Summit, it was found that there was a disproportionate coverage of conflict relative to co-operation and the views of rich countries and their leaders. Nevertheless, it was concluded that in general the issue was well-covered, with material from a variety of perspectives (Giffard 1996:216). In the case of street children in Brazil being killed by death squads involving the police, judges and businessmen, the issue was globalised by international NGOs such as Amnesty International and the mass media (Serra 1996:227). In this sense NGOs and the media can play an important role to put an issue on the table for global deliberation and enrich the information being communicated among citizens in public spheres.

The mostly positive impact or potential impact of IT on democracy as has been sketched so far is based on the premise that the decentralised, interactive and non-proprietary qualities of the Internet could be maintained and extended. This is, however, not a given. As the Internet has expanded, it has become increasingly clear that certain forces may use the Internet for non-democratic purposes. This has spurred a debate surrounding control and governance of this global network.

3.   STATE, MARKET AND SOCIETAL CONTROL OF THE INTERNET

The debate about control of the Internet is a complicated debate because cyberspace consists not only of hardware, but also of content. Although most writers do not distinguish between these aspects, the debate sometimes focuses on content control and at other times on design control and the impact the latter may have on content control. In the rest of the section the implications of state, market and societal control of IT for democracy will be examined, and where possible the distinction between design and content control will be made.

The state and IT: Since the inception of interactive television voting in the 1960s, the political debate surrounding it was primarily characterised by the fear of two-way surveillance where the state would use the available technology to profile citizens and violate their rights. These fears have continued in the information era. Wright (1999:3) argues that a period of pre-emptive policing has begun where law enforcement and intelligence agencies, instead of reacting to a crime, are increasingly tracking social classes,

ethnic groups, dissenting activists and others living in "red-lined zones". In a report[18] entitled "An appraisal of the technologies of political control" presented to the European Parliament's Scientific and Technological Options panel (STOA), the ways in which governments can use IT for national and international surveillance are outlined. The two systems most famous for their global interception capabilities are:

- ECHELON: This is a UK/US system comprising US (National Security Agency/CIA), UK (GCHQ), Canadian, Australian and New Zealand intelligence activities. This network, created during the Cold War, has five centres in each of the aforementioned countries, which provide each other with keywords, phrases and names of people to tag. Analysts believe that all email, telephone and fax communication within the scope of this system could be routinely intercepted and transferred to the relevant centre. Criteria determining who is not a target of surveillance are unclear. As a result of this type of indiscriminate surveillance the legitimacy of the information gathered by the ECHELON system have come under scrutiny.

- EU-FBI system: The EU, along with five other countries, has been planning its own global surveillance system with FBI help. This system will link law enforcement agencies responsible for policing, customs, immigration and internal security. The plans for this system, Wright (1999:10) notes, have neither been referred to any European government for scrutiny, nor to the Civil Liberties Committee of the European Parliament, despite the civil liberties implications thereof.

Arbitrary targeting of individuals and groups, and breaches of privacy by the state as a result of a paradigm shift from human intelligence to communications intelligence, have been one concern about the potential harm to democracy from state activities in the information era (Whitaker 1999). A second major debate involves the measure to which the state can and should intervene to censor information in cyberspace. At first it was thought that it would be impossible to regulate the content (or intellectual property) in cyberspace. This has been proven to be untrue. Increasingly governments are finding ways to censor information through filtering software and protocols. Governments can route Internet

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[18] The IC2000 report on communication interception and ECHELON was approved as a working document by the Science and Technology Options Assessment Panel of the European Parliament (STOA) at their meeting in Strasbourg on 6 May 1999 (European Union 1999).

communication through electronic gateways known as proxy servers, that is powerful computers seeking out communication that is deemed subversive or offensive. In authoritarian governments, such as China, this has meant that a good deal of foreign content has been blocked, whereas other governments, such as Singapore, have primarily focused on pornographic sites. Not all government regulation of the Internet is malevolent to democracy, though. The EU has, for example, implemented a directive on information privacy that places limitations on the collection and use of private information (Shapiro 1999:18, 19). Moreover, cybercrime, such as hacking and spreading viruses, demands government interventions.

Corporations and IT: Fears about the state in the information era have been dwarfed by the debate on the potential impact of corporate control of the hardware and knowledge of cyberspace on democracy. The case for corporate (or market) control of cyberspace, so called cyberlibertarianism, is best outlined in a document entitled *Cyberspace and the American dream: a Magna Carta for the Knowledge Age* which was released in 1994 by the Progress and Freedom Foundation and co-authored by Esther Dyson, George Gilder, George Keyworth and Alvin Toffler. The essence of cyberlibertarianism is the idea that the market, not government, is the only viable mechanism to keep up with the pace of changes in a Third Wave society. Inasmuch as inexpensive knowledge destroys economies of scale, the marketplace of the information era is one that will allow greater scope for dynamic competition. Natural monopolies and large TNCs will give way to smaller entrepreneurs with flexible production structures that will use customised knowledge to provide consumers with a larger diversity of goods. In this sense, ownership of cyberspace is left with the people. Ownership here should be understood as private ownership. The role of a Third Wave government is fivefold:

- To create a path to interactive multi-media access by reducing regulatory barriers to collaboration between the cable industry and phone companies. In this respect the *Magna Carta* states: "forcing a competition between cable and phone industries is socially elitist" because it will lead to supplementary and duplicative networks.
- To promote dynamic competition by reducing price-and-entry regulations because these regulations lead to natural monopolies where the monopolists submit to price regulation in return for an exclusive franchise on the market.

- To define and assign property rights. In this respect it is argued that US economic success is based on the right to private property. In the information era clear and enforceable property rights should be extended from patent and copyright systems for software to the use of the electromagnetic spectrum.

- To create pro-Third Wave tax and accounting rules which take into consideration the shortened capital life-cycles of the information era, making it possible for the computer industry to depreciate their products according to their real life span. Current tax laws in the US overvalue physical assets and undervalue intangible capital: thus human resources.

- To create a Third Wave government by redefining the relationship between government and society and here the emphasis is on smaller, dispersed and decentralised institutions.

Finally, cyberlibertarianists have distinct views on freedom and community. The notion of freedom in the information era, is one of individual freedom that even extends to hackers, whom the *Magna Carta* authors argue have become key to the economic growth and trade leadership of the US: "It is hard to imagine hackers surviving, let alone thriving, in the more formalised and regulated democracies of Europe and Japan." As far as community is concerned, it is argued that cyberspace will open up minds by 'demassifying' communities. According to Salin (quoted in the *Magna Carta*) "(t)he global network is a connected 'platform' for a collection of diverse communities. Just as access to homes and offices, churches and department stores is controlled by their owners or managers, most virtual locations will exist as distinct places of private property". In short, the keys to success in the Third Wave era are customisation, individuality and freedom.

The *Magna Carta* in particular and cyberlibertarianism in general are criticised for their right-wing interpretation of the concepts freedom, social life, economics and politics in the information era (Winner 1997:367). Chapman (in Roberts 1999:2) asks: "Was it an accident or just a misunderstanding that made the authors of the "Magna Carta" choose that phrase for their work? The original "Magna Carta" was a document that spelled out and enforced the rights of the nobility, not the rights of common people. The "Magna Carta" was a document of feudalism, not of democracy. Perhaps the feudal model is more appropriate to what the authors recommend". Specific points of critique are levelled against the *Magna Carta*, namely:

Technological determinism: The *Magna Carta* presumes that the Third Wave "shapes new codes of behavior that move each organism and institution – family, neighborhood, church, group, company, nation..." and people who do not ride this wave will perish. There is thus an inherent sense of inevitability built into cyberlibertarianism as defined by the *Magna Carta*.

Radical individualism: It is argued that the unprecedented level of individual "exercise of personal power and self-realization" that *the Magna Carta* foresees in the information era will be at the expense of individual responsibility, altruism and social welfare.

Supply-side, free market capitalism: According to the *Magna Carta* dynamic competition will lead to the demise of large centralised structures and natural monopolies and bring decision-making closer to the people. Capitalism in the information era is thus sketched as an egalitarian process. In this sense, capitalism is equated with democracy. But this notion can be criticised in at least three respects. Firstly, markets maintain and strengthen class divisions in society because power is not neutral or premised on one person one vote, but on one dollar one vote, benefiting the prosperous relative to the not so well to do. Secondly, the market does not so much give people what they want as it "gives them what they want within the range of what is most profitable to produce". The range from which people are constrained to choose is narrowed. Third, because markets are driven solely by profit considerations, long-term concerns and values, such as the environment and poverty issues, are downplayed (McChesney 1997:63; Sclove 2000:4).

Contradictions: The *Magna Carta* contains several contradictory points. On the one hand, it praises dynamic competition, but on the other, it argues that competition between cable and phone companies is unwelcome. Greater concentration of power over the conduits of information is supposed to lead to abundant bandwidth and universal access, but in practice this has the effect of content control. Instead of the collapse of natural monopolies as the document predicts recent corporate mergers, such as Time Warner, Turner Broadcasting and America Online, have created media giants. It is thus argued that the *Magna Carta* conflates the activities of freedom-seeking individuals with those of big profit-seeking business firms (Winner 1997:369; Sclove 2000:3).

Those who caution against corporate control and commercialisation of cyberspace, so called political economists, argue that the relationship between IT and democracy should be viewed firstly within historical context and secondly within the bigger realm of global capitalism.

Historical precedents for possible directions in control of the Internet can be found by examining the route radio and television followed. In the 1920s radio broadcasting, a radically new development then, was heralded for its public service potential, but soon its capacity to generate profits through network operation and commercial advertising became apparent. Governments could opt for public radio with popular participation that would reflect the level of democracy in society. In other words, in an open, democratic society, radio would portray such a culture, and in a closed, non-democratic society, radio would portray a non-democratic nature. In almost all countries, governments chose public radio except in the United States where the government chose private radio (Chomsky 1994:45). This decision effectively thwarted a radio reform movement in the United States that believed "if private interests controlled the medium and their goal was profit, no amount of regulation or self-regulation could overcome the bias build into the system. Commercial broadcasting would downplay controversial and provocative public affairs programming and emphasize whatever fare would sell the most products for advertisers." (McChesney 1997:61). By claiming that the handing over of radio to private interests constituted democracy inasmuch as it was giving people choices in the marketplace, business won an ideological victory.

This victory became especially apparent when the same public/private battle for the soul of television was replayed in the rest of the world, except in the United States where it was immediately commercialised. Although there are some public channels on US television today, it is argued that they are under-funded and only exist because private channels found it to be an escape route for them not to fulfil the US Federal Communication Commission (FCC) criteria on programming to public interests (Chomsky 1994:47).

Commercialisation of the Internet in the United States poses a worse threat to the democratisation of this medium than was the case for radio and TV. This is because the US

is at the forefront of developments in IT and the cultural horizon (of corporate control) may be so embedded in the technology that it may well not leave other countries alternatives to a commercialised Internet.

Looking at IT and democracy within the broader context of global capitalism, it is argued that the desire of corporations to expand globally fuelled much of the innovation in the IT sector. IT occupies the position in the world economy that steel, railroads and cars did in earlier eras. According to McChesney (1997:68, 69) five points are of importance to understand the cautionary (sometimes Luddite) position against IT under corporate control:

- Governments are severely constrained to formulate economic policy favourable to any interests aside from transnational business, because the ease of transborder capital flows make it possible for investors to take their money elsewhere.
- This gives business more leverage when dealing with governments and with labour movements. Labour and environmental regulations are some of the first casualties of globalisation.
- Globalisation in essence places a damper on economic growth rates in most countries. Inasmuch as individual investors will seek out the lowest wages, there is a downward pressure on wages and therefore buying power. This in turn, leads to a decline in profitable investment possibilities.
- Investment in the IT sector destroys almost as many jobs as it creates. The global working class is faced with more unemployment as the shift from manufacturing to information-related jobs (biased to the educated) occurs.
- In the light of the growth of transnational global financial markets that are beyond the power of any national or international regulation, there is a growing element of instability in the global economy.

Global capitalism not only affects democracy adversely by exacerbating class stratification, but also leads to the demise of civic virtue by creating a global commercial culture. In this respect Sclove (2000:1) warns that a commercially driven Internet will lead to the disappearance of the neighbourhood economy as more and more people shop on-line. So-called 'downtown' businesses will shut down because of a reduction in clientele, and force

even those people who do not want to shop online to do so. This is referred to as the Cybernectic Wal-Mart effect and juxtaposes the role of people as citizens against their role as consumers. Furthermore, as the Internet becomes commercialised its use for any other purposes than buying goods diminishes. On-line newspaper versions, for example, already have a much higher advertising-to-content ratio than their printed counterparts (Sclove 2000:5). Thus, political economists fear that increasing market control of the Internet will lead to corporate empowerment replacing democratic empowerment.

Society and IT: There are two views regarding societal control of IT, namely the infoanarchy view and the civil society view. There is a large group of people who believe that the Internet should not be controlled at all: the Internet should be an anarchy. Info-anarchists often develop, buy or support software and computer systems that allow people to communicate and trade on the Internet under conditions of anonymity, making the targets of government enforcement action invisible and defeating market regulation of the Internet. Although infoanarchy poses a threat to society in terms of hackers, child pornographers, privacy invaders and other cybercriminals, the real concern is with the threat posed to intellectual property rights. Publishers and record companies have filed several lawsuits against companies, such as Napster and MP3, that provide software for music sharing by downloading digitised songs for free (Schenker 2000:42). In the case of Napster everybody who downloads a song also agrees to make his/her digitised songs available for others to download. The infoanarchy view, often said to be a way to counter the monopoly of large music and publishing companies and their profit-seeking behaviour, becomes especially contentious for two reasons. Firstly, it may damage the rights of artists and writers and lead to piracy, which places a disincentive on creativity. Secondly, those who do not have access to the right computer devices will not be able to share in the benefits of infoanarchy. Moreover, music companies and publishing houses may even recover lost profit by raising prices in the market.

A less contentious view of societal control of IT concerns civil society. Both state and corporate control of cyberspace for purposes that may be to the detriment of democracy have met a substantial response from the non-governmental, non-profit sector to expose and resist undemocratic trends (Wright 1999b; Roberts 1999:1). One organisation that deems to keep the nature of IT democratic is "Computer Professionals for Social Responsibility"

(CPSR). In a document "One Planet, One Net: Principles for the Internet Era" they outline principles to counter social, economic, political and technical forces that can result in the Internet being homogenised, commercialised, and regulated to the extent that it fails to serve as a medium for maximising human potential. These principles are (Roberts 1999:1, 2):

- the Internet links people together;
- the Internet must be open and available for all;
- Internet users have the right to communicate;
- Internet users have the right to privacy;
- people are the Internet's stewards, not its owners (those who reap benefits from using the Internet must respect the rights of others who may use the Internet in different ways);
- administration of the Internet should be open and inclusive; and
- the Internet should reflect human diversity, not homogenise it.

Although there is no authoritative body to interpret, let alone ensure that these principles are honoured, the members of CPSR try to increase awareness about them and are in their individual capacities involved in numerous projects that incorporate and promote these principles.

Therefore, it seems that there is a delicate balance to be struck among the state, market and society. On the one hand, state control of IT could be invoked to ensure equal access to cyberspace and to guard against private interest dominating it, but absolute control will stifle development of IT and may even be used for citizen oppression. Although the market will be more efficient in developing IT, left to its own devices, the rights of non-participants to the market may be severely damaged and forms of justice such as those based on needs, ability and fairness, may be neglected. Despite the fears accompanying state- and market control of IT for the purposes of power and profit it is difficult to imagine a world (even a world in the wires) without state and market intervention. The answer is thus not so much to dispense with them, but to recognise that neither the state, nor the market was ever expected to operate without moral ties to civil society. In this regard Kurtland and Egan

(1996:400) write: "Civil society is a place that allows freedom by forcing people to recognize their interdependencies, in contrast with the capitalist market system, which only encourages pure self-seeking behavior and the state, which asserts coercive power." Striking this balance is by no means a simple task, which is exemplified by the process of assigning domain names and numbers.

In 1998 the US government created a private, non-profit corporation called the Internet Corporation for Assigned Names and Numbers (ICANN) to administer the Internet domain name system (DNS), previously monopolised by the company Network Solutions. Their main task is to administer the Internet's names and numbers, the domain name system and the corresponding Internet Protocol addresses that identify servers connected to the Internet. Although this may sound technical, it has become increasingly political and economic as intellectual property and trademark ownership came into play (The Economist 2000:77-79). Furthermore, ICANN's management of the DNS is equated to controlling the central nervous system of the Internet, which may give it leverage for future regulation. In exchange for a domain name, Internet users agree to rules that touch on free speech, taxation and anonymity. It is thus essential that ICANN is as democratic as possible. For this reason space was created on the Board of Directors of ICANN for elected representatives. Internet users over the age of 16 with a verifiable email address and physical address can sign up as members and can vote for nominees in their region (Cyber-federalist 2000:1). Civil society groups are actively involved in lobbying for candidates that they think will increase societal control of Internet governance. An ICANNwatch.org website has also been established by these groups to ensure that ICANN is not controlled by state or private interests. There seems to be a general recognition that the precedent set by ICANN will become future practice and will determine who controls the Internet and for what purposes.

A factor of equal importance to determine the impact of IT on democracy is the digital divide.

4.   THE DIGITAL DIVIDE AND DEMOCRACY

Information cautionaries emphasise that the value to democracy that IT may have is severely compromised if people do not have universal access to it (McChesney 1997:70). Not only will those who do not have access to IT be excluded from the benefits that IT provides to democratic participation, but as more government–citizen relations become Internet-based, there is a real danger of excluding people from the system as a whole. Equal opportunity to participate in the political system is one of the cornerstones of democracy. The demographics of access to and use of IT suggest, as was mentioned previously, that the distribution of IT users both within and between countries is severely skewed.

It should, however, be kept in mind that the Internet only really expanded in most countries in the early 1990s. In fact, Hargittai (2000:128) writes that the Internet only started to grow at its current pace since the emergence of geographical browser software for the WWW in 1993. The Internet has since outgrown all other media at similar periods of their life cycle. Governments world-wide, from Nepal[19] to Iraq[20], seem to acknowledge the urgency of bridging the digital divide and have not only adjusted their national policies accordingly, but co-operate in regional context in this respect. African ministers of communication for example have met in the past decade on a regular basis to discuss how Africa can be launched into the information era without succumbing to exploitation from large foreign telecommunication companies (South Africa 1998). Their initiatives include establishing centres of excellence (so-called African Connection Telecentres) in all 52 African countries to build technological capacity (Jensen 1999). The UN Secretary-General has also proposed a new programme that will create a new international voluntary corps, the UN Information Technology Service. This is part of a plan to bring advanced technology to poor countries to enable them to leapfrog over traditional stages of development at a lower cost (Crosette 2000:A4). There are also non-governmental programmes to address access issues, for example the Institute for Village Studies has a programme where they provide educational

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[19] Nepal's government is encouraging private investments in their telecom infrastructure due to financial shortages and hopes to get at least two telephone lines into every village after which Internet access will follow (Rojas 2000:64).

[20] Iraq only connected to the Internet in 1999 when it began opening Internet centres in government ministries and the first public centres were opened only in July of 2000. This late coming to the information era is due to the severe UN economic sanctions that were instituted against Iraq after the 1990 invasion of Kuwait (Reuters 2000a:6).

programmes along with information services, such as Internet access, to remote villages in Central America and India, but at the same time try to preserve their unique culture (www.villagestudies.org.).

The digital divide is, however, marked not only by limits on access to hardware that makes up cyberspace (primarily an economic constraint), but also by educational and cultural barriers. The educational barrier exists as a result of people not having computer skills. This barrier is bound to diminish in info-rich countries as software to access the web becomes more user-friendly and younger generations that are more comfortable with computers, age. In low-literacy rate countries, this barrier may be more difficult to overcome. The cultural barrier to access concerns, on the one hand, the Western language and value domination of the Internet and on the other hand, the fact that the Internet models "a male epistemology of reason-ruled, impersonal, linear-communicated, monological, and non-face-to-face interaction" (Kurtland & Egan 1996:393). As the Internet spreads to non-Western countries, the hope is that they would enrich the Internet with their own cultures. With respect to male domination there are groups such as WELL and ECHO that have established programmes to encourage women to use the Internet and make it more representative. Recent surveys have shown that efforts to increase Internet access have proven fruitful to close the digital divide within countries, but the gap between developed and developing countries is still substantial. This does not mean that the Internet is not expanding to developing countries, but only that the growth in developed countries is much faster, an understandable fact if the economic, educational and cultural barriers to access are compared (Reuters 2000b:6).

5. CONCLUSION

Inasmuch as the information revolution is all but exhausted, any definitive claims, whether Utopianist or Luddite, about democracy in the information era can only succumb to technological determinism. Based on the evaluation of the relationship between IT and democracy, though, there is reason to believe that the information era provides favourable opportunities for democracy. There are two sides to this argument. Firstly, social movements and groups devoted to progressive issues and social change use IT to improve democracy. IT is not only used by pro-democracy movements in their fight against

authoritarian regimes, but also to facilitate democratic transitions by creating a more open political culture. Furthermore, IT is increasingly employed to overcome the crisis in democracy experienced by most Western countries primarily as a result of a lack of participation. This is done by creating public spheres where citizens can deliberate public issues and communicate with their representatives. The phenomenon of public spheres is replicated at a global level where the global public and civil society engage in deliberation and act to influence the outcome of global issues.

The second side of the argument is that new information technology can be distinguished from the media that preceded it as it is relatively cheap, easy to use, difficult to control and interactive. Inasmuch as every Internet user can be both a sender and receiver of information, the information era provides unprecedented opportunities for participatory media forms and democratic uses of IT. The threats posed by state and corporate control and use of IT are duly noted as challenges to democracy in the information era. However, there have been substantial societal movements to expose and counter this. Furthermore, severe state control of IT has proven to be a recipe for economic backwardness. The Internet also provides unique ways to inform and mobilise a global citizenry to hold TNCs accountable, which should be of some consolation for political economists concerned about the expansion of global capitalism in the information era. Another challenge to democracy in the information era is the extent to which the digital divide in and between countries can be closed. This is one of the key concerns for striking a balance among state, market and societal control of IT, where the state and society emphasise equality of access, while the market emphasise efficient development of technology and production.

The way in which IT impacts on democracy has direct bearing on the research problem of the study, inasmuch as the second postulate of the propositional logical deductive model states that the information revolution is likely to enhance democracy. Establishing the probability that IT will provide favourable opportunities for democratisation, the quality of democracy and the globalisation of democracy, is thus an essential step in inferring that the democratic peace is more likely to exist in the information era. But, the research problem also probes a normative objective, namely to propose ways in which IT should be employed to enhance world peace. In this respect the challenges for democracy in the information era

as identified here, should be key concerns if the democratic peace is to be an plausible, viable and feasible approach to world peace in the information era.

CHAPTER 6

THE DEMOCRATIC PEACE AND WORLD PEACE IN THE INFORMATION ERA

1.   INTRODUCTION

When peace is defined as the absence of war (as is mostly the case in International Relations), peace efforts and peace discourses presume a certain conception of what is to be understood as war and warfare. The traditional conception of war is that of institutionally organised, interstate lethal violence. This conception derives from a view of the international arena as composed of sovereign states that will engage in war whether for just or unjust reasons. It also informs the liberal internationalist interpretation of the democratic peace as an approach to world peace. However, the end of the Cold War and the arrival of the information era have changed both actors and processes of international politics to the extent that traditional interpretations of war and peace need to be revisited. This does not mean that traditionally defined wars are no longer probable and ways to prevent them worthy of study, but it does acknowledge that traditional conceptions of war do not provide sufficient conceptual leeway to propose a comprehensive approach to peace in the information era.

In this chapter the impact of IT on the democratic peace will firstly be sketched, adhering to a neo-liberal internationalist interpretation of the democratic peace. Such an interpretation assumes an anarchical international system composed of sovereign states, defines democracy as a form of national government, and war as organised violence between states with battle fatalities amounting to 1 000 or more. It also suggests that the impact of IT on democracy and world peace can be studied, *ceteris paribus*, that is, while all other variables remain more or less unchanging. Secondly, the neo-liberal assumptions will be relaxed and more flexible definitions of democracy, war and peace are employed. A reflectivist approach is taken that sees IT not just as a variable, but as constitutive. As constitutive, the impact of IT on war and peace is not studied as a given or a universal truth (fact, what is), but in a normative way (what should be). Through ethically guided discourse the impact of IT can be directed towards democratic and peaceful outcomes.

2.   INFORMATION TECHNOLOGY AND THE DEMOCRATIC PEACE: *CETERIS PARIBUS*

When IT is incorporated into the democratic peace equation in a propositional logical deductive way, drawing a conclusion about world peace in the information era becomes an exercise in inference. In other words, the premise that IT provides favourable opportunities to enhance democracy in a qualitative and quantitative manner, given that democracies do not go to war with one another, leads to the inference that world peace will be enhanced in the information era. To substantiate this inference and ensure that it is not a spurious result, the extent to which IT will have a positive effect on the two explanatory models offered for the democratic peace, namely the cultural/normative and institutional/structural models, needs to be examined.

According to the normative/cultural model, democracies will not go to war because the norms underlying democratic governance make for peaceful resolution of conflict rather than war. Because democracy presumes the consent of the governed, political elites cannot make war for their own selfish interests. However, externalising these norms to the extent that they contribute to peaceful relations among states, depends on the principle of reciprocity, in other words, whether states perceive other states to be governed by the same norms. If states do not perceive other states to adhere to democratic norms internally and to project these norms onto their relations with other democratic states, then internal democratic norms cannot ensure externally peaceful behaviour.

IT contributes to the normative/cultural aspect of the democratic peace in the following ways. Human rights and pro-democracy groups use IT to put pressure on authoritarian governments to act in more democratic ways by exposing and resisting human rights violations. This is done through facilitating the mobilisation and organisation of dissident groups that focus their efforts on democratisation in the Huntingtonian sense, that is, overthrowing or forcing authoritarian governments to abdicate and installing democratic governments. These groups may be engaged in peaceful struggles as is the case of Aaung San Suu Kyi in Burma or armed struggle in the case of Kurdish rebels in Turkey. The use of IT goes beyond a tool of organisation and mobilisation of dissidents; it also involves mobilisation of the international community and global public. This is done through the so-

called CNN effect, an effect that now includes many more channels of mass media than CNN and is probably better termed the CNN *et al* effect (Libicki 1998:411-428). The CNN *et al* effect refers to the reach and impact that news channels, such as CNN and BBC, have on global audiences when they feature a news story. For example, in September 2000 San Suu Kyi was prevented from making a political trip to another village by the Myanmar military regime. The news coverage by CNN and other networks combined with the efforts of the Free Burma Coalition induced widespread political pressure by the international community, including a letter from Kofi Annan, the Secretary-General of the UN, to the military regime.

IT facilitates not only political pressure on authoritarian governments, but also economic pressure for democratisation. Firstly, authoritarian governments risk economic backwardness if they restrict access to IT. Secondly, the global public exerts pressure on TNCs not to invest in countries with bad human rights violations. This was best illustrated when PepsiCo lost a $1 million contract at Harvard University in the United States because of a boycott by students who denounced PepsiCo's involvement in Myanmar. The company opted to withdraw from Myanmar. Although boycott campaigns are not new, the use of IT has made them more effective (Bray 1997:206).

The necessity of IT infrastructure for economic competitiveness means that authoritarian governments need to relinquish their restrictions on information. Although governments such as those in China and Myanmar can exert some limitations on the websites which people visit, the Internet still provides access to abundant information and ideas, one source being regular academic and social email interaction. There is reason to believe that the access to information and ideas can cultivate a democratic political culture that will facilitate transitions to democracy. In this respect Wriston (1997:175) writes: "The impact of global conversation, like that of village conversation, is enormous – and it is multiplied many times. A global village will have global customs. Denying people human rights or democratic freedoms no longer means denying them an abstraction they have never experienced, but violating the established customs of the village." This does not mean that culture in the global village is homogenous or that the customs Wriston mentions refer to liberally defined Western democratic practice *per se*. To illustrate this point reference can be made to Kuwait. Wheeler (1998:359) mentions that Kuwaitis use the Internet to have

encounters with the opposite sex, and that a *muhajibah*, a religious women who veils uses the Internet to pursue her job. Both of these examples, given the very closed nature of Islam as it is practised in Kuwait, are indicative of the use of cyberspace by Kuwaitis to act in unthinkably more open ways than their 'traditional' culture dictates that they should.

In established democracies IT is used to intensify democratic norms through providing more channels for public deliberation and participation. Political representatives are indeed obliged to consult more closely with an informed citizenry; they can explain their decisions and –if the explanations fail– be held accountable for their actions. This can be seen in the rise of civil society groups and grassroots movements and the direct effect they have on government policy[21].

Democracies are characterised by various structures that institutionalise democratic norms of consent by the governed and protection of rights and freedoms against the arbitrary use of government power. Although these institutions may vary from one democracy to the other, they all provide a structural delay for political decisions in that these decisions are subject to broader public scrutiny. This can occur in many ways, for example, a representative body having to ratify a decision or a decision being tested against a form of constitution or law. Democratic institutions prevent war between democracies because internal consent needs to be mobilised, and even if this can be done, the structural delay may give leaders sufficient time to pursue peaceful means of resolving conflicts. This is, however, again subject to the reciprocity principle, which means that democracies will only let the due democratic course take its turn if they perceive the adversary having to do the same. If not, democracies may resort to emergency powers and portray exactly the behaviour that would be expected of non-democracies.

IT indirectly helps establish democratic structures and institutions by facilitating democratic struggles against authoritarian governments. The installation of a democratic government usually coincides with institutionalising democratic norms through the division of government power or other forms of structural constraints to executive power and

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[21] The protests over the high taxes levied on fuel in Europe during September 2000, is an example of these kinds of grassroots movements. IT played an essential part in the success of the protests through facilitating organisation of protests, making information about tax levels available, and facilitating a snowball effect through Europe.

protection of human and civil rights. Once established, IT is used to strengthen these institutions in an economic-administrative way, for example by employing IT in the election process, delivering services to citizens or disseminating information about government actions and decisions to citizens and enabling them to participate in the political process. The ease with which civil society can organise and mobilise also facilitates the institutionalisation of public watchdogs on government actions.

Both the explanatory models place emphasis on the mutuality of democratic norms and institutions to prevent war between democracies. Reciprocity in the anarchical international system is for the democratic peace what deterrence is for the balance of power. If a democracy does not perceive another state to be constrained by the same norms and structures, non-violent behaviour by the democracy cannot be guaranteed. An important aspect of the maintenance of the democratic peace is thus the communication of a country's democratic nature or the limitations placed on its behaviour towards other countries on the international terrain. This has traditionally been the role of diplomacy in foreign affairs. The dawn of the information era has generated three new types of diplomacy, expanding traditional intergovernmental diplomacy, that facilitate the projection of a state's democratic nature and peaceful intentions, namely public, private and virtual diplomacy (Tehranian 1999a:63-68).

Public diplomacy: The increased interaction between people from different countries, the CNN effect and global interdependence have created the need to go beyond "elite groups within national governments communicating about international problems only with each other, and largely behind closed doors" (Roberts 1991:113). It is increasingly seen as a matter of political necessity for governments to communicate with the public, not only in their own country, but also abroad. A state can no longer act without getting the support of foreign publics; if it alienates a foreign public, the government of that state may be less inclined to undertake joint efforts with it. This strengthens the democratic peace, because democracies then must justify their behaviour not only internally (to their own citizens), but also abroad. It adds institutional and normative constraints to government behaviour and joins them to communicate their democratic nature internationally in a consistent and credible fashion.

Popular diplomacy: Public diplomacy is top-down and rather than supplanting traditional diplomacy is more of an auxiliary instrument to governments to ensure support for their policies. Popular diplomacy, on the other hand, is bottom-up and involves ordinary citizens, eminent people, such as former US president, Jimmy Carter and groups such as Amnesty International, to engage in diplomatic efforts. Governments often find these efforts intrusive, but popular diplomacy does serve to overcome narrow or nationalist objectives.

Virtual diplomacy: IT has broadened and deepened the opportunities for diplomatic efforts through a diverse variety of channels. For example, global teleconferencing has allowed numerous official and unofficial contacts on a regular basis. American and Russian executives are linked through the 'hot line' (installed after the 1962 Cuban missile crisis) and a closed circuit video teleconferencing facility. The Internet has, however, been instrumental in allowing expert groups to act as intermediaries, advocates and advisers in international conflicts. Arbitration and conflict resolution networks have sprung up on the Internet. They are run by various institutes and research centres that identify parties in a conflict and try to engage them in dialogue. For example the University of California's Institute on Global Conflict and Co-operation (IGCC) embarked on a project called "Wired for Peace". The project involved linking social scientists and policy makers with science and technology experts to develop Internet applications for multi-lateral co-operation in the Middle East and Northern Asia. Track-two communications and co-operation between key players through access to multilingual document libraries, workgroup schedules and tools for collaborative document writing and data analysis were aimed at strengthening peace processes (Gormley 1999:19). This is also referred to as Virtual Track-Two diplomacy. The other side to virtual track-two diplomacy involves people-to-people interaction where citizens learn from their counterparts in other countries. The personal nature of this kind of diplomacy means that it is potentially powerful in mobilising public opinion and influencing government policy.

Given the impact of IT on democratic norms, institutions and communicating mutuality of constraints that bind democracies, it is clear that IT is likely to increase peaceful relations on the dyadic level, in other words, between two democracies. Whether the same can be said for peace on the monadic and system levels needs further examination.

The monadic level concerns the effect of IT on democratic pacifism, that is, whether democracies are inherently more peaceful and the translation of this into peaceful relations between mixed dyads (democracies and non-democracies). The Gulf War and the NATO bombing of Serbia, the most well-known post-Cold War instances where democracies were involved in conflict that bordered on full-scale war with non-democracies, suggest that democracies are just as warprone as they used to be. The role of global mass media (CNN *et al*) has been especially ambiguous in contributing to peace between mixed dyads. On the one hand, the global media can contribute to the constitution of an international public sphere where the international society participates in a common conversation or 'global dialogue' irrespective of regime type. This was the case during the US/Soviet summits in Italy near the end of the Cold War. The meetings between Reagan and Gorbachev were usually sketched as integrating events in which the whole of mankind had a stake (Hallin & Macini 1991:249-265).

On the other hand, the media's role is severely inhibited by two factors. Firstly, the international public sphere created by the global media is often subject to hegemonic internationalism, that is, "the belief that the integration of the world is taking place but on asymmetrical, unequal terms, and that this is the only possible and desirable way for such an integration to take place" (Halliday 1988:193). Coverage devoted to different areas of the world and their responses to issues are skewed. Moreover, when these parts of the world are reported on it is done through culturally confined lenses. Kavoori (1997:104) writes that the narratives used by American (for example CNN) and British (for example BBC) journalists serve the foreign policy interests of their governments and manufacture consent in public opinion. The narratives often dichotomise, dramatise and distort the issue at stake resulting in a perception of 'we' (the good, lucky or prosperous ones) versus 'them' (the bad, unhappy or destitute ones).

Secondly, a symbiosis develops between government and media coverage of international affairs, because governments can enhance, restrict, and/or manipulate the media's access to information and coverage (Tehranian 1999a:64). This was especially the case during the Gulf War, which is often referred to as the first government-managed television war in history. Eighty percent of the US public getting their information from television supported the war effort. However, when there are casualties involved, as was the case in Vietnam and

Somalia for the United States, the media is likely to turn against government war policy and accelerate policies favouring a peaceful approach toward a conflict. Thus, CNN *et al*, inasmuch as they are still nationally based institutions that are often initially uncritical and objective servants of national policy, are not likely to have any profound impact on democratic pacifism.

IT may, however, impact positively on mixed dyad relations by providing opportunities to monitor international agreements and treaties. In this respect, the impact of IT on the nuclear weapons issue, serves as an example. The network of portable, low-cost seismometers run by hundreds of digital stations around the world, monitors seismological events, including nuclear tests. This has not prevented states from testing nuclear weapons (clearly illustrated by Indian and Pakistan tests in 1998), but it does mean that no state can test covertly (Libicki 1998:411-428). IT also provides opportunities for individuals to disclose under anonymity, information about covert activity should their countries be involved in making chemical and biological or nuclear weapons (Larkin 1999:4).

Going a step further than arms control treaty enforcement, scholars have suggested that the age of information warfare provides favourable opportunities to help keep the peace between mixed dyads by 'illuminating the battlespace'. Battlespace illumination is usually perceived as a strategic advantage for advanced militaries using space-based sensors, specialised aircraft, unmanned arial vehicles, radar and other IT related technology to scan the battlespace in fine detail and identify targets. The US' Joint Vision 2010 envisions a system of systems where different military divisions would contribute to battlespace knowledge in the same way the Internet functions: decentralised mutual accessibility. Libicki (1998:411-428) suggests that by spreading access to this network in times of peace, peace can be promoted. Countries will be able to monitor for signs of potential attack and the knowledge that states are being watched may reduce aggression. Global visibility may also reduce tensions that feed arms races. In this regard Libicki writes (1998:17): "If … every nation could clearly see what is coming at them, their confidence in their defenses would be justified, thereby decreasing the incentive to acquire unnecessary arms. Stability might be further enhanced if all understood that access to such information favored those whose forces were designed for defense and were on good behavior." Although it may take time for confidence to develop in open systems like these, it is reciprocal inasmuch as both

democracies and non-democracies are required to disclose information about their forces and this will contribute to 'trust' (here defined as predictability of one another's behaviour) between states irrespective of regime type. It is not difficult to imagine the potential of open systems for improving relations in conflict areas such as the Middle East, Asia (China, India and Pakistan) and East Africa (Ethiopia and Eritrea).

On the system level, it was concluded that increased democratisation would translate into increased world peace when a system shift occurs, that is when democratic dyads outnumber mixed dyads. Ahead of a system shift, democratisation may actually decrease the likelihood of world peace because it would lead to more mixed dyads and mixed dyads, according to Gleditsch and Hegre (1997:306), are more likely to go to war than non-democratic dyads. Given the Cold War as the historical point where a system shift has occurred, democratisation would mean greater world peace provided that democracies do not follow a Wilsonian approach, that is using force to make the world safe for democracy. It was suggested that IT provides favourable opportunities for democratisation and in turn the expansion of the pacific union. Given that democratic dyads now outnumber mixed dyads, democratisation should result in increased world peace, leading to the conclusion that IT enhances world peace. The Gulf War and the Serbia bombings obligate a more cautious conclusion, though.

These conflicts raise the question whether democracies are more likely to take a Wilsonian approach to defend human rights in the information era. Certainly the emphasis that the world media has placed on human rights abuses along with the expansion of a global human rights movement have increased pressure on governments to intervene forcefully in cases where human rights abuses are committed. However, in the cases of Kuwait and Kosovo, intervention cannot readily be interpreted as intervention for the sake of democratisation. Former US president, Richard Nixon, remarked that the Gulf War was not about democracy or human rights, but about oil and hegemony and who the "boss" was going to in the post-Cold War era (Tehranian 1992:14). Hobsbawm (2000:17), on the other hand, makes the following comments regarding the Kosovo War: "Today, there undoubtedly is a genuine debate about the importance of human rights in order to ascertain to what extent their defense could be guaranteed by the use of military force. But I am still of the conviction that neither NATO nor the United States thought seriously about going to war entirely on

grounds of principle and ethics." The bombing of Serbia, rather than being motivated by a moral imperative, is interpreted in realist terms as defending NATO's credibility and to convince potential enemies outside the NATO alliance of NATO's post-Cold War role.

IT does not so much induce a Wilsonian response from democracies, but rather impact in a Kantian way on non-democracies. The Kantian approach to democratisation sees democracy (note not necessarily defined in liberal Western terms) as the final form of government to which every state is progressing. IT, it is argued in this dissertation, is accelerating this process by facilitating the spread of democratic norms and the creation of democratic institutions. As long as the international system is composed of mixed dyads, even if they are in the minority, the democratic peace does not exclude war between them. The Gulf War and Kosovo interventions should therefore not be seen as refuting the inference that the information era provides favourable opportunities for world peace. The prospects for an accelerated democratisation process suggest that the pacific union is moving towards universal membership at a faster pace without Wilsonian wars and this increases the likelihood for increased world peace.

These conclusions are based on a neo-liberal interpretation of the democratic peace that firstly assumes particular definitions of democracy, war and the actors in world politics and secondly assumes that IT as a variable, which impacts on the democratic peace, can be studied while all other variables remain unchanging. Both of these neo-liberal assumptions will be relaxed while employing a reflectivist interpretation of the democratic peace in the information era. Inasmuch as approaches to peace presume an understanding of war, the new interpretation of the democratic peace will start by reconceptualising war.

3.   THE CHANGING NATURE OF WAR IN THE INFORMATION ERA

Since the end of the Cold War, so-called 'new security' challenges or the broadening of the security concept have been on the agenda of scholars and policy-makers. This has involved the examination of issues ranging from civil and ethnic conflict to environmental degradation, resource scarcity, drug trafficking, organised crime and transnational terrorism and their impact on the security of states in a realm previously reserved for military concerns (Stares 1998:11). There is a danger of reconceptualising war in the information era

by taking the same approach, a national security approach, which focuses only on the impact that the advent of the information era has on the physical security of the state in the event of war. Such an approach was made fashionable by Heidi and Alvin Toffler (1994b) in their book *War and Antiwar* and employs the term information warfare to indicate the changing nature of war. In essence, the approach superimposes the implications of information technologies for conflict and the conduct of military operations on the emerging geostrategic environment of states. Information warfare on the one hand, involves the military application of IT to achieve strategic objectives and on the other, the targeting of information infrastructure to debilitate and/or defeat an enemy. In terms of the former, info-rich states have pursued information dominance, as the US military refers to the strength derived from having vastly more knowledge of conflict conditions than an enemy and the technologies to take advantage of information disparity (Rothkopf 1998:343). Policy-makers and strategists have predicted a revolution in military affairs (RMA), which is driven by the information revolution and will encompass "deep-strike dominated, stealthy air operations; land and space-based defense of the sea and submersible power projection; space warfare; and independent and integrated information warfare" (Vikers 1997:32). The Gulf War is seen as the first albeit incomplete manifestation of the RMA and US information dominance.

In terms of targeting civilian and military information infrastructure to debilitate an enemy, info-rich states have increasingly become concerned with their dependence on IT in everyday life and in military affairs, making them more vulnerable than states which are not as penetrated by IT (Pfaltzgraff & Schultz 1997:13). National security analysts in info-rich countries have subsequently been concerned about information asymmetry or the so-called David effect. It is argued that IT has the potential to empower small states that cannot otherwise afford a conventional army and/or hope to win a conventional war against a major power such as the United States. This is done by acquiring the right technology and building up a small army of so-called cyberwarriors (IT specialists and programmers that can hack into another states' most important computers). It is cheap in monetary terms and casualties to enter an enemy's computer-controlled infrastructure through public networks and disrupt critical services, create false information, manipulate information or launch malicious logic-based weapons against an information system (Rothkopf 1998:347).

Inasmuch as IT is readily available to non-state actors, the US military has identified substate and trans-state actors, such as ethnic factions, extreme ethno-nationalist movements, religious radicals, militias, international criminal organisations and terrorists as posing severe threats to US national security. Part of their concern over these groups and movements is that they contribute to state ungovernability and political fragmentation that could in the longer run increase regional and global instability. In this regard Pfaltzgraff and Schultz (1997:19) write: "While most substate and trans-state actors do not pose a direct strategic threat to US interests today, over time their cumulative impact could undermine regional stability in areas of vital US interest. Furthermore, such groups will be able to put at risk vulnerable aspects of post-industrial American society." It is then no surprise that this approach to reconceptualise war in the information era emphasises negative approaches to peace in the information era, such as counter-netwar. The propensity of these approaches to give priority to stability, order and the survival of the state and not to distinguish between different types of struggles and social movements have often been at the cost of human rights and democracy. The Zapatista movement in Chiapas (Mexico) uses the Internet to mobilise and influence government policy on human rights and democracy while exposing military atrocities against them. Prominent national security researchers in the US have labelled this a netwar. They have advised the Mexican government "to improve its ability to wage counter-netwar" to ensure that netwars do not adversely affect Mexico's stability and transformability (Rondfeldt & Martinez 1997:383).

The discourse framing the national security reconceptualisation of war in the information era is characterised by several biases, such as statecentrism, a bias for power politics and a bias for the security of info-rich states. These biases are typical of rationalist theories in International Relations.

A more reflectivist approach would be to begin a reconceptualisation of war in the information era with the concept human security. In the efforts to expand the security concept Mahbub ul-Haq, former adviser to the United Nations Development Programme (UNDP), promulgated the idea of human security. Human security focuses on the well-being of people "everywhere – in their homes, in their jobs, in their streets, in their communities, and in their environment" as opposed to the security of states (Ul-Haq 1999:79). Paralleling this expansion of the security concept to human security has been the

expansion of what is to be understood as peace. Not only is peace seen as a process across many levels - global, national, local and personal, but it also involves direct and indirect, intended and unintended and organised and unorganised human activity. The definition of peace used in the UN Declaration of the Preparation for Life in Peace is indicative of such a broadened conception. The UN University summarised this definition as follow: "The removal of institutional obstacles and the promotion of structural conditions facilitating the growth of socio-cultural, economic and political trends, aiming at and leading to Life in Peace understood as both subjective life styles and objective living conditions congruent with basic peace values such as security, non violence, identity, equity and well being as opposed to insecurity, violence, alienation, inequity and deprivation" (UN University 1986 in Smoker 1992:92).

Although a similar expansion of the war concept has been less forthcoming than the logical relationship between security, peace and war warrants, Tehranian (1999a: 167-171) distinguishes between pre-modern, modern and post-modern warfare. This distinction should not be viewed as historical stages of warfare inasmuch as most wars are a complex mix between all three pure types. However, it does provide the heuristic means to study the changing nature of warfare in the information era without the biases inherent in a national security approach.

The changing nature of war is studied in terms of time, space, identity, institutions, organisation and legitimisation. In the pre-modern world, war coincided with seasonal changes or migratory movements of populations, for example tribal wars and the Western encroachment of native populations. Warfare modernised as multinational, agrarian and bureaucratic empires, such as the Persian, Roman and Ottoman empires emerged. Wars became less sporadic and seasonal as they followed the *raison d'etat*, involving territorial and sphere of influence conquests. The Peace of Westphalia in 1648, creating the modern state system with its distinct and internationally agreed upon state borders, accelerated this process. War in this period –modern war– can be described as discrete, overt hostility across national borders accompanied by a declaration of war. The Cold War changed the nature of warfare, lending it an element of permanency manifesting in intense rivalry, proxy violence, undeclared wars, covert operations and low-intensity conflicts.

Spatially, pre-modern wars were fought at the tribal level or between feudal societies. Modern wars are fought at the national level where rules of national borders sanctified by international agreements apply. Post-modern war adheres to new rules informed by the transnationalisation of the world economy and the global reach of military technology and communication opening the space of war. Wars are conducted as if national borders do not exist, best exemplified by the shipments of arms and supplies to client states or guerrillas by the superpowers and their allies during the Cold War. Hobsbawm (2000:10) refers to this as the erosion between internal and international conflicts. The war in the Democratic Republic of the Congo, which started out as the overthrow of Mobutu Sese Seko (intrastate war), has at times involved as many as nine African countries.

A similar shift in the identity of warfare is visible, namely from tribalist to nationalist struggles to clashes between globalist and a diversity of localist –religious, tribal or ethnic– forces. One of the fundamental characteristics of post-modern warfare is the relationship that emerges and links wars between states or organised movements with wars between private individuals or organisations. Combatants in pre-modern wars were usually *bona fide* members of the tribe that showed their manliness through battle. The citizen armies, where combatants show their identification with the state through patriotic acts of self-sacrifice, individualised war in the modern world. In post-modern warfare, combatants are professionalised, and as a result disembodied "as if wars were fought between two impersonal fighting machines" (Tehranian 1999a:169). Citizen armies are gradually being replaced by professional warriors and mercenaries for example, the South African and US military veterans fighting in Africa and Bosnia. But it is not only in disintegrating states that private armies are employed. Even in the most advanced countries private companies provide consultancy and operational services to governments about warfare and antiterrorism (Hobsbawm 2000:13). Post-modern warfare is commercialised and privatised. Again reference can be made to the DRC where diamonds have fuelled and prolonged the war and spurred the intervention of other countries and actors.

Another aspect of the identity of post-modern wars is the return of the 'warlord' as state power declines. Warlords are reminiscent of pre-modern wars where there were no governments except the armies of warlords. This phenomenon can also be linked to the growth of illegal businesses such as drug trafficking. It is widely believed that the Kosovo

Liberation Army is funded by the illegal trafficking activities of the Kosovar and Albanian Mafia. A similar situation is suspected in Chechnya. This does not mean that these are unjust causes, but the money thus spent has given political significance to subnational groups that have become actors on the international scene (Hobsbawm 2000:14,15).

In terms of organisation, pre-modern wars are existential inasmuch as they are based on a unity of spiritual and temporal authorities. Modern wars, on the other hand, portray the separation of church and state where civilian and military branches of government are divided and war is an extension of politics by other means. In the post-modern world, the military-industrial complex defines the enemy and devices global strategies and tactics to constantly harass and eventually defeat, the enemy. Warfare has thus shifted from being ritualised (pre-modern) to regularised (modern) to totalised (post-modern). Substantial segments of populations in the post-modern world have a stake in wars, not only because they are employed by military industries, but also because corporations in fields, such as chemicals and IT, assist in arms production (Tehranian 1999a:170).

The targets of violence in pre-modern war were the physical bodies of the enemy and the capture or decapitation of their leader. In modern warfare violence was directed toward mass populations and their economic resources. Post-modern warfare focuses on collateral damage, but also directs violence to cultural and environmental resources, for example, Sadam Hussein's ignitions of oil wells during the Gulf War. Advanced technology embodied in intelligent bombs, unmanned aviation vehicles and satellite intelligence has made destruction much more precise and discriminating. Although it is argued that this has made post-modern wars less bloody and devastating, it also means that states having these weapons may be more likely to engage in 'frequent and frivolous' destruction (Hobsbawm 2000:11). So-called 'collateral damage' inflicted when violence is aimed at military targets, as was the case in Serbia, does not account for the massive damage to infrastructure, the subsequent effect on economies and societies in whole regions or environmental damage.

Finally, a distinction can be drawn between the legitimisation of pre-modern, modern and post-modern wars. Pre-modern wars did not need legitimisation as it was a way of life, an ontological condition dictated by nature. Modern wars, however, were ideologised on nationalist (for example, making the world safe for democracy), imperialist (for example,

carrying out the white man's burden) or universalist (for example, advancing the cause of the international proletariat) basis to mobilise the masses. Post-modern warfare for the most part is permanent, routinised and professional in nature. Unless wars escalate to high-intensity war and become visible, such as the Gulf War and Kosovo, they need not be legitimised (Tehranian 1999a:171).

Although Tehranian does not refer to the role of the information revolution directly in the shift to post-modern warfare, IT contributes to the post-modern character of wars in several ways. For example, IT adds to the globality of wars by providing the means for 'lesser' actors on the international stage, such as terrorist groups, to challenge state actors. Global media has made some conflicts more visible, but there is still moral ambiguity when it comes to the timely, equal and unbiased coverage of wars. To this extent many wars are rendered invisible, because they are not covered by the global media. This is typical of protracted warfare where the global media becomes saturated of routinised human suffering. In the quest for entertainment value and ratings, commercial media prefer dichotomising conflict stories in terms of wrongs and rights and where this cannot be done, for example in the case of DRC conflict, coverage is limited. Most post-modern conflicts are deeply structural in origin. In other words, they persist for years in the form of malnutrition, chronic disease, poverty and other social circumstances that breed mobilisation around ethnic and identity lines. Only when something dramatic happens, the media reports on it and the international community is moved into belated action as were the case in Rwanda and Somalia (Tehranian 1999a:172).

The privatised, commercialised character of post-modern warfare is furthered by IT's facilitation of the global expansion of capitalism and the ease of transnational money flows. This has given big corporations disproportionate power and influence, especially, but not exclusively in countries where state structures and civil society are disintegrating. Furthermore, applying IT in warfare resembles a similar 'post-modern' outcome as nuclear weapons had on the Cold War, the first post-modern war. Information warfare is war by machines, war by remote control, automatic war, and war in new forms enabled by novel technology. It is in a sense unmoored from reality, because it is not face-to-face war of greed, territory or defence. Rather, it is institutionalised, rationalised and immune to critique. Yet, as was the case with the Cold War, it is a war 'in preparation', so terrible (and

unwinnable) that it is never undertaken to its full extent even as it consumes vast economic resources and causes deep fear (Larkin 2000).

4. THE GLOBALISATION OF THE DEMOCRATIC PEACE

Wars in the information era portray post-modern elements and therefore oblige an approach to peace that is flexible enough to presume a conception of war as global, protracted, invisible, unwinnable, deeply structural, privatised, economised, routinised and often involving many more actors (state and private) than the immediate conflicting parties. This involves going beyond interstate wars to recognise that wars also occur on a substate level (intrastate wars) and on a global level (terrorist and economic wars) and that there is a complex interplay between the different types of wars. Implied in such an approach would be a relaxation of the statecentred view of world politics and the state as level of analysis (second image approach). It also necessitates acknowledgement of the often, contradictory processes that lie at the heart of post-modern wars, such as globalisation from above through state and market action and fragmentation along nationalistic and identity lines from below. The democratic peace, as the approach has hitherto been interpreted, cannot be employed to counter post-modern wars. However, the Kantian roots of this approach along with the opportunities made possible by IT to strengthen democratic institutions and norms on a global level, open the door for a reinterpretation of the democratic peace in a cosmopolitan way that transcends adherence to a statecentric, second image view.

A cosmopolitan interpretation of the democratic peace is based on the notion that human beings have obligations to one another, which are prior to the formation of sovereign states. But the state system superimposes political obligations owed to fellow-citizens alone upon primordial moral ones to all of mankind. This results in "each one of us being in the civil state as regards our fellow-citizens, but in a state of nature as regards the rest of the world, we have taken all kinds of precautions against private wars only to kindle national wars a thousand times more terrible; and … in joining a particular group of men, we have really declared ourselves the enemies of the whole race" (Rousseau in Linklater 1990:24). Loyalty to the state is thus problematic and becomes even more so when statehood and nationhood do not coincide. According to Tehranian (1999a:174) a total of 82 percent of protracted conflicts have involved nascent nations. When dominant nations are privileged at the

expense of minority ethnic groups within their boundaries, such as the Palestinians, the Kurds and the Tibetans, the state becomes a root cause of internal wars.

A cosmopolitan interpretation of the democratic peace is embedded in Kant's belief "that just as we have within us the capacity to produce ideas such as 'causation' we have, within us, also the moral law, which he calls the 'categorical imperative'", an imperative to act in a particular way on the basis of moral principles and with moral motives (Brown 1992:30, 41). Kant formulates the categorical imperative in terms of three principles, namely:

- to act on a maxim that can at the same time be made a universal law. If a maxim is thus not universally applicable, it is not moral (Brown 1992:30);
- to act in such a way that you always treat humanity never simply as means, but always at the same time as ends (Linklater 1990:100,101). To live life according to universal maxims is to recognise rules that take the ends of all persons into consideration. To treat humanity as an end in itself is related to Kant's "Formula of Autonomy", which states that the will is subject to laws it makes itself, but every rational being is autonomous in this sense and may therefore not be treated in accordance with a principle he will not consent to as a rational being (Brown 1992:30,31); and
- to act as if you were, through your maxims, a law-making member of a kingdom of ends, recognising the will of every rational being as a will which makes universal law.

Inasmuch as Kant saw individuals, irrespective of their national/state identity as citizens of a universal state of mankind governed by universal morality, the democratic peace can be interpreted in a way that transcends the second image (or state level). This interpretation is uniquely suited to address wars in the information era for it grasps the interconnectedness and interdependencies of the global village without disregarding the diversity, difference and discrimination that inform the trends of fragmentation in the information era. Such an interpretation would emphasise that certain democratic values universally applied can enhance world peace. Tehranian (1992:10-13) identifies the following democratic values that provide the normative foundations upon which a world community can be built:

Security: Security as a democratic value is embedded in Rousseau's idea of a social contract where individuals in the state of nature accept a higher authority in return for

protection. Security has thus traditionally been defined in nationalistic and military terms. However, a broad range of security concerns affect ordinary people on a daily basis, for example environmental degradation, poverty, deteriorating health care and so forth. Moreover, security defined as national security does not recognise global security concerns (Smoker 1992:92). The distinction between a narrow and broad security concept is inextricably linked to the distinction between negative and positive peace. Negative peace, as was explained earlier, is the absence of war, and approaches toward negative peace focus on the immediate threat of war between nations. Positive peace, on the other hand, is the absence of war plus genuine human harmony and co-operation. Thus, approaches toward positive peace focus more on the overarching, long-term goal of establishing peace through a more nuanced understanding of the causes of conflict (Reed & Tehranian 1999:24, 25). A broad conception of security gives preference to the well-being of people as opposed to the physical security of states. It thus goes beyond such security arrangements as military alliances, disarmament efforts and peacekeeping to include the development of a sense of global community.

Freedom: Freedom as a norm of international community refers to freedom from coercion (in the negative sense) as well as the freedom to act autonomously (in the positive sense). Both these interpretations of freedom manifest themselves in human rights laws that are now in its third generation. First generation human rights laws focus on individual political rights as embodied in the Universal Declaration of Human Rights. Second generation human rights legislation focuses on social and economic rights as embodied in the UN Covenant on Civil and Political Rights and third generation legislation focuses on the collective rights of communities as embodied in the UN Covenant on Economic, Social and Cultural Rights (Tehranian 1992:11). Tehranian (1999a:185) adds two other generations of human rights, namely that associated with environmental issues and as yet to be developed and codified a generation of human rights grounded in human caring, compassion and love. Whereas the former recognises human beings and nature as interdependent, the latter sees the individual as an integral part of a larger human community. Instead of positioning the individual against society as libertarian rights do, these rights position the individual in society, more specifically in nodes of caring starting with the family, going onto school, the workplace and retirement.

Justice: Justice as a democratic norm is legally defined as the right to equal treatment and opportunity. As a norm of global democracy, justice takes on a different dimension, most notably in the light of a just world order. Inasmuch as communism proved unable to create incentives on the production side of the economy and fairness on the distribution side, it lost legitimacy as an ideology for ordering the world. On the other hand, capitalism is being questioned as an alternative ideology due to its inability to deliver social services to the poor amidst a growing gap between rich and poor within and between countries. It is thus clear that as a norm of international community, justice poses great ambiguities and controversies (Tehranian 1992:12).

Community: Community as a global democratic norm returns to the two additional generations of human rights that Tehranian mentions as preconditions for freedom. It emphasises the individual's interdependence with nature and with the community at all levels. Four conditions determine the strengths and weaknesses of a sense of community, namely the existence of core values that impart a common culture and meaning system, a communication system and media channels, commonly agreed upon systems of human agency and intervention, and generally accepted norms of conflict resolution (Tehranian 1992:12, 13). Moving from the local to the global level, these conditions usually decline.

Just as Kant did not propose a world government to establish perpetual peace, the cosmopolitan interpretation of the democratic peace does not oblige the creation of a world government and the abolition of states. This is best explained by Reed and Tehranian's (1999:24) distinction between global governance and global democracy: "Global governance refers to the study of globally valid norms, rules, and international treaties and codes of conduct designed for, and generally observed by, states and transnational actors in the international public policy-making process. Global democracy, however, goes a step beyond this. It also refers to efforts to foster an ethic of world citizenship or enhancing and strengthening global civil society." A global civil society serves as an important vehicle to implement and strengthen the global democratic norms of security, freedom, justice and community and institutionalising them on the global arena as civil society does in national democracies.

Globalisation has, for example, created a gap between national democratic checks and balances and TNCs. This has been the case for two reasons, namely states are confined to territorial jurisdiction, while TNCs operate across national borders and secondly, in an era of mobile capital flows, states are subtly coerced into a lenient posture towards TNCs for fear of loosing investments. Global civil society groups can fill that gap because they operate transnationally and have less at stake when taking a position in opposition to big companies (Reed & Tehranian 1999:66). Furthermore, global networking between civil society groups has made it possible to mobilise the global public opinion around issues that invoke universal morality, such as human rights violations, environmental degradation, arms control and structural causes of war.

The globalisation of the democratic peace provided through the promotion of democratic norms by a global civil society, paves the way for addressing the post-modern elements of war in the information era. Examples already exist where precisely this has happened, namely:

The International Campaign to Ban Landmines (ICBL): Although landmines are also used in modern wars, they contribute to the post-modern nature of wars in several respects. The indiscriminate nature of landmines often leads to civilian killing and maiming, more so because the cost and duration of removing landmines means that many of them are left in the ground during peacetime. This contributes to the protracted, low intensity nature of post-modern wars. Inasmuch as farmland is rendered unusable, landmines also have a structural element.

In 1992 the International Campaign to Ban Landmines (ICBL) was launched. Co-ordinated by a committee of sixteen organisations, it brought together over 1 300 groups among which human rights, children, peace, disability, religious, environmental, women and development groups working locally, nationally, regionally and internationally to ban landmines (www.icbl.org/more.php3). The NGOs involved documented the extent of the problem, enlisted the media and mobilised popular support for the commonly referred to 1997 "Anti-landmine" treaty (Convention on the prohibition of the use, stockpiling, production and transfer of antipersonnel mines). During the negotiations of the treaty NGOs were given access and the right to comment, thus providing expert information used to

counteract government rhetoric. For example, when US officials argued that landmines protected American soldiers' lives during Vietnam, NGOs proved that one-third of American casualties were due to landmines. The ICBL was so successful that 135 countries signed the treaty and it became international law after 40 countries ratified it. It has since been ratified by an additional 41 countries. The ICBL is now focusing on getting rebel groups to abandon use of landmines. A working group of the ICBL has held negotiations with groups such as the Sudan People's Liberation Army, the Moro Islamic Liberation Front in the Philippines and the Liberation Tigers of Tamil Eelam in Sri Lanka (Deen 2000:1). The ICBL recognises that an interstate ban on landmines would not be sufficient in an era of post-modern wars involving non-state, stateless or antistate actors.

Diamond trade and African conflicts: A similar campaign to the ICBL was launched in 1999 called Fatal Transactions to alert the public that diamonds often fund conflict in Africa. In Angola, Sierra Leone and the DRC conflicts, rebel forces have engaged in diamond mining to purchase weaponry and support their war efforts. Big diamond companies, such as De Beers, have been implicated in diamond trade that leads to the continuance of civil wars and the social consequences thereof (refugees, internal displacement, civilian casualties and so forth). The campaign has thus focused on transparency in diamond trading and "Global Witness", a UK based investigative human rights and environment NGO, has presented a report that outlines the problem and proposes ways in which diamond traders can be assured that diamonds are not related to these conflicts. De Beers have subsequently agreed not to buy diamonds from Angola and a certification process has been implemented in Antwerp's diamond trade market. Again global civil society has forced private actors that indirectly exacerbate wars to be more accountable.

Shell and the Ogoni human rights violations: One of the examples of post-modern war has been the involvement of TNCs in civil wars and/or oppression of minority groups to promote their interests. The Anglo-Dutch oil company, Shell, has been accused of such activities in Nigeria in particular orchestrating a series of raids by the Nigerian military on villages in the Ogoni region that left more than 1 000 people dead and 20 000 homeless. The company is also implicated in the torture and execution of the so-called Ogoni Nine, leaders of the Movement for the Survival of Ogoni People (Mosop). Among them was the

writer Ken Saro-Wiwa. Mosop started a campaign in the early 1990s to protest environmental damage to their area as well as the appropriation of land for oil mining without appropriate compensation. Their struggle became increasingly violent and the military regime came to see them as a secessionist movement and a political threat. Whereas it would have been impossible for a minority group such as the Ogonis to seek legal retribution for human rights violations by a private company in the absence of state commitment to their cause, the information era provided unique opportunities for the Ogonis to take their plight elsewhere. In the Shell/Ogoni case, the Center for Constitutional Rights filed a suit against Shell on behalf of three Nigerian emigrants to the United States, among which Ken Saro-Wiwa's brother. The case will be tried by a full jury trial in New York. The judge awarded jurisdiction to the New York court because Shell has assets in the United States, the Nigerians emigrated to the United States, the United States has a stake in providing a forum for human rights claims and in the United States torture committed under the law of a foreign nation in violation of international law, is also a violation of US domestic law (McGregor 2000:1). A number of civil society groups are also spearheading a campaign to establish a permanent International Criminal Court (ICC) that may in the future serve as the forum where these cases will be heard (Scholte 1999:21).

The WTO, IMF and World Bank protests and the accompanying campaign waged to get Third World debt cancelled (Jubilee 2000), can be interpreted as efforts of civil society to alleviate the structural elements of post-modern warfare resulting from the unfair world economy. Aid agencies and their development and crisis alleviation efforts can be seen as promoting the democratic values of community or caring on a global scale. Voluntary associations are often an alternative to the state and market in the production and delivery of goods and services. In this way they provide a safety net of education, health, housing and other material needs for the vulnerable sectors of society. Beyond aid efforts, there are increasing numbers of NGOs directing their effort at fair trade (Scholte 1999:25). In some cases this involves microlending to the rural poor who are not credit worthy by commercial bank standards and providing them with higher (in many cases fairer) returns for their produce[22].

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[22] Examples of such NGOs are 'AidplusTrade', a UK based organisation, which operates in South America and South Africa (www.aidplustrade.com) and Oxfam/ACTIONAID, also a UK based NGO.

According to Scholte (1999:25-27), civil society is a force for democracy in the following ways:

- providing material welfare to those adversely affected by globalisation;
- serving as a conduit for civic education;
- providing the supra-territorial channels through which citizens can reach each other. These channels are especially useful to give a voice to indigenous groups, smallholder farmers, the urban poor and those who would otherwise go unheard;
- fuelling debate by introducing alternative perspectives and methodologies and questioning accepted economic and environmental policies;
- increasing transparency and accountability of the workings of the global markets, international organisations, such as the UN and the EU and government institutions;
- promoting legitimisation through monitoring and consultation activities. Peacefulness in states is related to the extent to which citizens accept higher authority. NGOs, such as Amnesty and Greenpeace can influence the respect awarded to international organisations, transnational companies and governments; and
- enhancing social cohesion.

However, democratic norms are not automatically promoted by civil society. There are some instances where civil society can actually be damaging to democracy and peace. For example, some groups may have ill-intentioned motives. Neo-Nazi, fundamentalists and soccer hooligans also use the Internet to mobilise and co-ordinate their activities. Other civic organisations may suffer from flawed policy. Development and environmental groups are sometimes accused of handling information in a careless way or being culturally insensitive. In this regard Ostertag (in Smoker 1992:100) documented a case where a Greenpeace fund-raising activity with French actress Bridgette Bardot walking on the Arctic ice with seals, resulted in the collapse of Eskimo economies, which are dependent on the pelts market. Furthermore, civic groups may themselves suffer from undemocratic practices when it comes to their internal organisation. Members may, for example, have little opportunity for participation other than paying membership fees. Transparency and accountability are also not intrinsic to civic organisations. Inadequate representation because of biased access to civil society is one of the most common defects of global civic

groups. This result in culturally biased policies and activities and may even exacerbate structural inequalities connected to class, gender, race, nationality and so forth (Smoker 1992:101; Scholte 1999:30). There has been a trend in these organisations during the 1990s to be more representative by promoting women and people of colour as well as changing the mode of interaction between the North and South from a parent-child relationship to one of partnership and co-operation.

Thus, IT has contributed to the globalisation of democracy, especially democratic norms, such as security, freedom, justice and community. In the absence of a world government this is done through the global civil society that uses IT to mobilise and co-ordinate their efforts. As a result, these civil society groups can hold governments as well as transnational actors accountable and can facilitate the institutionalisation of democratic norms on the global arena. Global democratic norms and institutions play an important part in enhancing world peace, in particular those elements of world peace that is referred to as post-modern and are not covered by approaches to peace based on interstate war.

5.   CONCLUSION

Any proposed approach to world peace in the information era needs to start with the recognition that creating the conditions that will allow states to maintain peaceful relations between themselves, although important, is not sufficient to eliminate war. This is because war can no longer be confined to the 'tidy' definition of interstate conflict in an era that has made war between states and non-state actors commonplace. Since the Cold War wars have increasingly taken on a post-modern nature. This involves, but is not excluded to local, national and transnational ethnic, religious, identity and economic conflicts, exploited for and fuelled by private interests, not least that of TNCs. It is argued in this chapter that the democratic peace by inference can promote peace between states because IT provides conditions promising to (second image) democracy. But, the democratic peace can also be expanded theoretically (via Kantian cosmopolitanism) and practically (because IT facilitates the globalisation of democratic norms through a global civil society) to address the elements of post-modern war in the information era.

This re-interpretation of the democratic peace does not assume the theoretical orderliness of the traditional neo-liberal internationalist interpretation. It can therefore be criticised for conceptual vagueness and empirical untestability. For example, the term global community is difficult to conceptualise. Does it refer to all individuals world-wide or only those that interact across state borders or have an interest in global issues? Does it include state actors, for example state representatives in international organisations or only non-state actors? Furthermore, unlike the quantifiability of interstate conflicts with a casualty rate higher than 1 000 soldiers, post-modern wars cannot be quantified, for the casualties also include those civilians that die of structural causes and consequences of war, such as malnutrition and disease. The invisibility or anonymity of many of the adversaries and their activities in post-modern wars would make measuring the extent to which the proposed approach actually reduce or eliminate post-modern elements of war even more difficult.

However, the theoretical caveats do not distract from the idea that the information era provides unique ways to foster global democratic norms such as security, freedom, justice and community on a world-wide scale. Global civil society has become a vehicle to promote these norms and to campaign for its institutionalisation in international organisations, such as an International Criminal Court. Eventually these institutions may provide more concrete and robust watchdogs over global processes and actors formerly immune to pressures of transparency and accountability and serve the cause of human security as opposed to national security. In light of the research problem of the study, in the final analysis it needs to be established whether this broadening of the democratic peace approach is sufficient to maintain that the democratic peace is a plausible, viable and feasible approach to peace in the information era.

CHAPTER 7

EVALUATION

1.   INTRODUCTION

In final analysis, it is necessary to return to the initial research problem and research objectives as formulated. The aim of the study was to evaluate the plausibility, viability and feasibility of the democratic peace as an approach to world peace in the information era. This aim underpinned four research objectives, namely to review the democratic peace as an approach to peace in International Relations by contextualising it within the framework of other approaches to peace, tracing the theoretical origins of the democratic peace and outlining it as a phenomenon in world politics. Secondly, it aimed to examine the claim that developments in IT have brought about a new era, the information era. Thirdly, it endeavoured to assess claims, by authors of seminal International Relations and Communication texts, that there are causal relations between IT and democracy and between democracy and world peace respectively, applying deductive logic to reach a conclusion about the correlation between IT and world peace. Fourthly, the study aimed to recommend ways in which IT should be employed to harness the information revolution and direct it towards democracy and world peace. The latter objective is normative in nature inasmuch as it goes beyond an examination of what is likely to occur in the information era to prescribe concrete steps that would enhance the probability of the democratic peace to exist.

The democratic peace is one of several approaches to world peace in International Relations. These approaches can be categorised into realist, liberal and radical approaches to peace based on their theoretical premises. Realist approaches to peace regard states as the primary actors in an anarchical international system, national security as the primary objective of international relations and war between states as normal. Liberal approaches assume a heterogeneous state of war and peace, which may even become a state of peace alone. Liberal societies can co-exist in the international system without their relations being dominated by a security motive. When disagreement arises over an issue, this is resolved through international organisation and law, not through war. Radical approaches to peace

problematise notions such as security and power politics. Socialism, one of the prominent radical theories, views world politics as interclass solidarities and emphasise that a 'war' between classes within and across national boundaries exists. The shift in International Relations theory from the interparadigm debate to the debate between rationalist and reflectivist theories has also impacted on peace approaches. Whereas rationalism has involved the streamlining of theories and in turn approaches to peace toward greater empiricism, reflectivism has emphasised the constitutive nature of theories and therefore peace approaches.

The democratic peace as an approach to peace presumes that democracies do not wage war with one another and therefore an increase (quantitatively and qualitatively) in democracy will enhance world peace. The approach is traditionally regarded as a liberal, more specifically a liberal internationalist approach to peace. The rationalist interpretation of democratic peace theory employs certain conceptual limitations in terms of defining war and democracy that will allow for empirical testing of the approach. These tests have confirmed that democracies are unlikely to engage in war with one another and that this can be attributed to democratic norms and structures that place constraints on decision-makers' power to declare war. These constraints can, however, be circumvented should democracies face war with non-democracies. Democracies are thus not inherently more peaceful. They are only more peaceful when they perceive other states to be constrained by the same democratic norms and structures prevailing in their own systems. Although the democratic peace in its liberal internationalist form is a plausible approach to address interstate conflict, the dawn of the information era provides an incentive to re-evaluate the democratic peace.

The information revolution, that is, the exponential increase in speed, capacity and distribution of IT has resulted in a connected and interdependent world that resembles a global village. In this global village not everybody has equal access to IT, but the effects of the process of globalisation, accelerated by IT, are widely felt. Some of the theories explaining the impact of IT on society emphasise the inherent benefits for democracy, peace and prosperity, while others predict that IT can only exacerbate existing inequalities to the detriment of society. There are also theories that view IT as neutral and do not foresee any impact on society except that intended by the users of IT. It is, however, clear when examining democracy in the information era that IT (especially its culmination in the

Internet) is not completely neutral. The Internet's decentralised nature makes it hard (though not impossible) to control in the ways one-to-many media could be controlled. It also provides a new public space for deliberation among citizens from the local to the global level. These democratic proclivities can be exploited to bring about democratisation in authoritarian states by facilitating pro-democracy movements and strengthening democratic processes in established democracies. In the latter case this can be done in an administrative way (through better public services and Internet voting) or by creating more means for political education and deliberation. Moreover, because of the decrease in cost and difficulty to communicate across vast distances, IT can have the same benefits in the global arena. As more people communicate across state borders, scholars predict a growing sense of world citizenship. Deliberation occurs in global public spheres, whether in cyberspace or through satellite conferencing, and civil society groups organise and mobilise on a global scale to affect issues on a local, national or global level.

By inference it can be deduced that the democratic proclivities of IT will have a positive effect on world peace, defined as the absence of interstate lethal violence. IT helps to spread and intensify democratic norms and create and strengthen democratic institutions. In addition, IT facilitates old and new types of diplomacy that make it possible for states to project their democratic nature onto the international arena and thus promote the principle of reciprocity on which the democratic peace is built. Thus, assuming that all other variables remain unchanging (in this case, that war can be defined as interstate war with battle fatalities amounting to 1 000) the relationship between IT and world peace is positive. All other variables can, however, not be assumed unchanging because the conceptual limitations of a liberal internationalist approach, in particular with respect to war, cannot be sustained in the information era.

IT impacts on war in a national security way inasmuch as it makes information warfare more likely. More importantly though, IT has resulted in warfare assuming an increasingly post-modern character. Non-state actors play a greater role in wars that seem to be routinised, permanent, structural and beyond legitimisation unless they escalate to high-intensity conflict (as was the case in the Serbian/NATO conflict). Aspects such as poverty, ethnicity and the environment are increasingly elements of conflicts as opposed to the security of states. This means that the democratic peace needs to be expanded to provide

ways to combat post-modern warfare. Kantian cosmopolitanism, which underpins democratic peace theory, provides the theoretical leeway for such an expansion. In practice IT enables such an expansion, because it facilitates the globalisation of democratic norms and the creation of a global civil society intend on implementing these norms.

Given this brief overview of the research problem and objectives and the way in which the study attempts to address it, the key findings can now be reviewed. This will be done by framing the conclusions of the study in terms of three scenarios, namely continuity, collapse and transformation scenarios. The continuity and collapse scenarios are both reminiscent of rationalist scenarios in International Relations, whereas the transformation scenario, informed by the premise that theories and discourse are constitutive of reality, takes a more reflectivist approach.

2.   CONTINUITY IN THE INFORMATION ERA

Continuity scenarios in International Relations, according to Reed and Tehranian (1999:68), adapt geopolitical categories and logic from the realist school of Cold War literature to changing international circumstances. The end of history scenario that Fukuyama (1989) sketched as the Cold War came to an end is typical of a continuity scenario and predicts the end of mankind's ideological evolution[23]. Western liberal democracy is universalised as the final form of government and all states will inevitably adopt it. Because democracies do not make war with one another, the universal spread of democracy will lead to the expansion of the pacific union and the preservation of world peace. By connecting the latter with utopian determinist - and cyberlibertarian theories of the impact of IT on society, it is not difficult to perceive the information era as an era that will accelerate the end of history.

Cyberlibertarians base their argument on liberal economic principles, most notably the Smithsonian principle of the invisible hand of the market and the Ricardian principle of free trade. IT decentralises information and creates opportunities for individuals to bypass established hierarchies. Hence, governments can play an increasingly minimalist role, bringing decision-making power closer to citizens and therefore enhancing democracy. This

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[23] Stating that the end of history scenario is a continuity scenario may seem to be a contradiction in terms, but the end of history suggests that liberalism will continue as the predominant ideology in the post-Cold War era.

is not only a positive trend in established democracies where domination of the public sphere by politicians, lobbyist and journalists has led to a crisis in democratic participation, but also in non-democratic countries. IT, having been developed essentially under a cultural horizon of liberal (mostly Western) economic and democratic norms serves as a vector for the spread of liberal values. This was best illustrated in the former Soviet Union where the closed nature of the system was ill-suited to the challenges of the information era. For fear of economic retardation, governments will liberalise their economies and political systems. Changes in domestic political regime will bring about changes in foreign policy behaviour, thus expanding the *pax democratica*.

A continuity scenario of the democratic peace in the information era could conceive of war in two instances. Firstly, war is 'normal' among states not yet at the end of history (thus non-democratic dyads) and between states at the end of history and those not at the end of history (thus mixed dyads). These wars will decrease as more states reach the end of history and this will happen faster in the information era, because IT provides favourable opportunities for democracy. Secondly, Wilsonian wars may occur when democracies fight to make the world safe for democracy. Inasmuch as the mass media and the Internet bring images of genocide and human rights violations to the doorstep of citizens in democracies, governments in these countries may be pressed to intervene for the sake of democracy more often and overtly in the information era than was previously the case. However, Wilsonian wars are in essence a means to increase the number of democracies and will therefore contribute to the gradual reduction in interstate war.

The continuity scenario can be criticised for its simplistic application of rationalist themes of International Relations to new circumstances. The democratic peace is seen as an approach to establish peace among states and therefore it adheres to a second image interpretation of the democratic peace. In the information era this statecentric view does not suffice to deal with increasingly complex interactions between states and non-state actors, specifically on the terrain of warfare. Moreover, the idea that IT will inevitably promote democratic values is technologically deterministic. Although the decentralised and open design of IT that culminates in the Internet implies a democratic proneness, authoritarian governments have managed to inhibit aspects thereof, and even more alarming, IT has been used by governments to breach privacy through indiscriminate information surveillance.

Another aspect of technological determinism concerns access to IT. The continuity scenario as sketched above assumes that IT will spread to all parts of the world and that individuals will have equal access to it. This has proven not to be the case, on the contrary the digital divide seems to be widening between countries. It is not only the digital gap, but also general economic disparities within and between states that inform the collapse scenario.

3.   COLLAPSE IN THE INFORMATION ERA

Collapse scenarios of the post-Cold War world hold that the underlying forces of global capital and rapid industrialisation remain largely unaccountable to the needs of the majority of human beings in the world. Three aspects cause the alarmist tone in these scenarios namely, economic stagnation, the rise of nationalism and violent ethnic conflict and the increasing probability of some kind of global disaster albeit nuclear war or a global epidemic. The political economy view of IT and society can be drawn upon to sketch a collapse scenario of the relationship between IT, democracy and peace. Within the broader framework of capitalist expansion, it is argued that IT facilitates huge and instantaneous transfers of capital across borders and the ability of TNCs to operate where labour is cheapest and environmental laws most lenient. National governments, eager for corporate investments, will turn a blind eye to or even take part in the exploitation of labour and the environment. As has been shown by the UNDP's Development Reports over the past decade, the global expansion of capitalism has coincided with the widening gap between the haves and have-nots. Inequality will lead to greater frustration and alienation, and eventually conflict as the expectations of the poor meet harsh economic realities. The expectations of the poor are a function of the spread of democratic principles (among which equality) and a Western consumerist culture. Resentment will deepen as economic hardship continues, the perception of unfair economic practices grows and competition for scarce resources increases (Reed & Tehranian 1999:71, 72).

A collapse scenario of the relationship between IT, democracy, and peace also questions liberal democracy as a universal ideology. The Internet is seen as a tool of cultural homogenisation that will spur a violent response from local cultures, mobilised at the peripheries to counter the centres of power. The increase in religious fundamentalist, ethno-

nationalist and neo-conservative movements is a manifestation of this process. The Internet, inasmuch as it provides opportunities for groups to organise and mobilise their activities across borders, facilitates the process of local fragmentation. As a second image approach to world peace that focuses on the absence of interstate violence, the democratic peace is rendered inapplicable to address this type of conflict, because it disregards the importance of non-state actors as parties in war.

Finally, a collapse scenario can also be informed by the implications of IT on warfare between states that have 'information dominance' and states that don't. States that perceive their chances of winning a conventional war with an info-rich state, such as the United States, improbable may look for other ways of combat, for example nuclear or chemical and biological warfare (Rothkopf 1998:346). To deter these threats info-rich states have felt compelled to sustain their nuclear arsenals in the post-Cold War era. The nuclear threat is thus just as imminent in the information era.

The collapse scenario emphasises that IT benefits private interests and empowers corporations as opposed to 'the average world citizen'. The growing gap between rich and poor and the fertile ground that this provides for politicising culture and subsequent political fragmentation, are key aspects of this scenario. The prospects for democracy and peace have diminished in the information era, because IT is used by corporations, governments and non-state actors to the detriment of democratic principles such as freedom, equality and community. The collapse scenario is problematic since it does not proceed to concrete alternatives or solutions. Again the critique of technological determinism can be made, this time against a Luddite position that views the adverse implications of IT for democracy and world peace as inevitable. Despite this critique, the fact that the collapse scenario problematices IT as a variable in international relations makes it a good starting point from where to embark on the more normative scholarly activity of sketching a transformation scenario.

4.   TRANSFORMATION IN THE INFORMATION ERA

Although both continuity and collapse are possible in the information era, neither is inevitable. Whereas the collapse scenario highlights the caveats of assuming a continuity

scenario of the relationship between IT, democracy and world peace, the transformation scenario explores the possibilities for reform. This scenario accepts that the democratic peace is a plausible approach to peace between states, because democratic norms and institutions promote the peaceful resolution of disputes internally and when projected onto the international terrain, a perception of reciprocity results in peaceful relations between democracies. But, it also recognises that it is not sufficient to focus on interstate war and state actors alone. The current world order entertains a type of war that necessitates an approach to world peace that is flexible enough to be employed on different and mixed levels of analysis. The democratic peace can be such an approach if it assumes a cosmopolitan character. Citizens of different states should perceive themselves as citizens of a community of humankind and award the same respect and trust awarded to fellow citizens (at least to the extent that disputes are resolved amicably) to human beings around the globe. This does not mean that states should be abolished (anarchy) or that a world government (supra-nationalism) needs to be established, but when states fail to uphold the rights and freedoms of citizens or transnational actors become immune to scrutiny there should be a response forthcoming from the global citizenry. IT can facilitate such a response by providing opportunities to inform the global public about issues of concern to human security, making global dialogue between people and cultures possible and facilitating the organisation and mobilisation of a global civil society. However, IT can also fuel non-democratic trends, such as increasing economic disparities between rich and poor within and between states, cultural fragmentation and state and corporate uses of IT for power- and profit seeking that cause and exacerbate wars between states and non-state actors. A conscious effort is thus necessary to expose the adverse effects of IT and redirect it towards achieving (human) security, freedom, justice (equality) and community. Such an effort commences with the following dimensions of transformation:

Democratising Internet governance: Broadly defined Internet governance refers to all institutional mechanisms and structures, which have been put into place by technicians and politicians in order to co-ordinate and shape the working and use of the Internet. It thus involves issues of privacy, such as data security and encryption; e-commerce, such as online consumer protection and taxation; content regulation, such as censorship and filtering; Intellectual Property in Cyberspace, such as domain names and trademarks; and access and participation, such as Internet infrastructure policies. Not all of these issues can be dealt

with by the existing legislative, social, economic and political frameworks of the respective countries within which the Internet develops. The management of transnational technological interdependencies arising from the Internet demands international structures. The Internet is seen as such a unique space, developing in a very decentralised manner through a mix of technological self-co-ordination and public funding, that conventional international governance structures will not suffice. For certain issues, for example the domain name system, new structures have to be created outside of the realm of existing governments. Although this provides the opportunity to start from scratch and design the foundations for a fair and equitable governance system tailored to the nature of the Internet, the fear has been expressed that specific well-organised and well-endowed interest groups will try to steer this process to their benefit (http://intgov.apdip.net/apdip_new/issues.htm).

Although ICANN is so far the principal structure of Internet governance, two other bodies have also been identified as Internet governance structures. The Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C) are Internet technical standards bodies that develop technical specifications, for example communication protocols that make it possible for computers to 'speak' to one another. Although they are involved with technical problems, these problems are entwined with political and economic issues. For example, the IETF's telecom equipment-makers had to decide whether or not to make it possible for governments to wiretap their products (as certain governments require). Although a technical decision, it potentially has implications for user privacy – in essence a socio-political issue. The IETF has subsequently opened up their decision-making processes to broader membership and has created an Internet Societal Task Force to deliberate the social and economic implications that these technical decisions may have (The Economist 2000:77, 78). The W3C, founded by Tim Berners-Lee (inventor of the WWW), consists of more than 400 companies that each pays $50 000 (US) a year for membership. In light of the commercialisation of television especially in the United States, it is not difficult to see why some fear that these companies may further their own agendas without paying heed to broader societal concerns (The Economist 2000:78).

As a crucial global infrastructure resource with far-reaching economic and social implications, the Internet has turned not only Internet users, but also a much broader range of people into stakeholders when it comes to Internet governance. According to the Asia-

Pacific Development Information Programme's Internet governance information website (http://intgov.apdip.net/apdip_new/issues.htm) "active involvement from all stakeholders and the articulation and consideration of concerns of future and developing user communities in this formation period is crucial in order to pre-empt capture and ensure that the emerging governance system and the principles embodied in it are equitable and inclusive." Thus, participation and representation of stakeholders in bodies such as the IETF, W3C and ICANN need to be created and expanded. This should especially be the case for currently marginalised stakeholders, such as those in the Asia-Pacific and African regions. Where bodies are not open for public membership, civil society groups such as those established to watch over the ICANN process, should be established to scrutinise Internet governance activities and press for inclusive decision-making processes. Inasmuch as governments and companies also form part of the stakeholder community, they should be watchdogs over each other's role in Internet governance and the structures and bodies involved in it.

Bridging the digital divide: As was noted earlier, the democratic proclivities of IT are severely inhibited if the digital divide is not bridged. It is thus an important dimension of transformation in the information era. Issues regarding access do not only involve access to IT infrastructure, but also to the educational abilities to use it and membership of Internet governance bodies. Instead of empowering the marginalised, the information revolution runs the risk of exacerbating existing economic, social and political inequalities in and among states if the gap between info-rich and info-poor is not addressed.

Democratising civil society: IT has been instrumental in the rise of global civil society groups that serve as a vehicle for civic education, a check on government and corporate uses of power and various other activities that promote democracy, peace, ecological sustainability, poverty relief and so forth. In this sense civil society plays an important role in bringing about a cosmopolitan democratic peace by appealing to people to think beyond state borders and national security. However, the success of these groups is dependent on their ability and willingness to (Scholte 2000:33-34):

- enhance diversity, in other words, to be more representatives of demographics that include gender, race, urban/rural divides and culture;

- allow vigilance, that is, to address their own democratic deficits by allowing monitoring of their activities. This does not mean intrusive government surveillance, but rather programmes of evaluation by internal or external assessors;

- build capacity through staff training and thoroughly researching the dynamics of the environments that they get involved in; and

- expand involvement by directing campaign efforts to the general public and emphasising global citizenship. It is in this respect that the global media becomes an important ally in the information era.

Creating a peace-oriented media: The global media can play an important role in highlighting issues and gaining support for civil society movements to address these issues as was evident in the case of the killing of street children in Brazil (Serra 1996:219). The media can also facilitate dialogue and understanding between people and cultures and as such contribute to the creation of a global citizenry. In order to play such a role the media has to reorient itself toward peace. According to Galtung and Vincent (1992:126-139) data is reported in a context of theories and values. If peace is the desired value, then the following proposals can be made for a peace-oriented media:

- The media should report all sides. Media biases (usually connected to nationalism) in terms of covering a conflict can exacerbate tensions. If the 'other' side is not given a voice or a chance to explain their reasons and goals in a conflict the issue and dynamics cannot be fully understood. Moreover, the other side is dehumanised as a kind of phenomenon prone to sudden bursts of evil activity (action) and incapable of interaction. Peace-oriented media does not only have to break through these distortions, but also have to make peace dialogues public and thus raise public concern that will put pressure on governments to find a speedy resolve.

- The media should make explicit some theories, the intellectual frame of reference, and the discourse or paradigm within which a conflict is to be understood. The deeper historical and structural roots of a conflict need to be explained, again giving coverage to opposing opinions and evidence as well as the consequences of these opinions. A conflict is thus more than just its manifestations in terms of hostile attitudes and behaviour.

- The foregoing demands should also be directed to media owned by governmental or corporate interests. In terms of the former, the media is often forced to be the carriers of national myths and governmental messages. In terms of the latter, commercial interests' power over media channels and newspapers may manifest itself in bias coverage of conflicts revolving around capitalism.

- The media should not over-emphasise elite countries, elite persons, personalisation or negative events. These are the four tendencies of news reporting and are typically sensational and aimed at the proverbial tip of the iceberg of a conflict while ignoring the deeper structural and historical factors.

- The media should try to enhance the retention elements of news reporting and respect the willingness of audiences to learn about issues. In fear of boring audiences, journalists often talk down to them, instead of engaging in more complex analysis and interpretation. This limits the potential of the media to convey the realities of a situation and to create understanding among the public about it.

- The media should portray more clearly the benefits of peace. Peace is here to be understood not only as the absence of war, but also as economic justice, political freedom and cultural meaning. By reporting only on conflict and negative events, the media may contribute to global insecurity by conditioning people to violence.

Apart from these proposals, Galtung and Vincent (1992: 139-141) also propose that the media understand the reality of arms issues and the inner dynamics of arms races. In addition, special attention needs to be paid to North/South dynamics as opposed to focusing largely on conflict formation among industrialised countries.

The elements of transformation constitute the ways in which the information revolution and its effects can be directed toward attaining democratic peace in the information era. In the information era, the democratic peace is not only peace between states, it is cosmopolitan peace achieved through the promotion and institutionalisation of global democratic norms such as security, freedom, justice and community.

5.   PROBLEM AREAS

At least two aspects can be highlighted as problem areas in the way the research problem has been addressed, namely:

Rationalist and reflectivist incommesurability: In the study it is proposed that the democratic peace approach in its neo-liberal internationalist form is a plausible, but not a comprehensive approach to world peace in the information era.   To address more than interstate wars, the democratic peace needs to be expanded conceptually, not only to provide for a less statecentric view, but also to afford a more normative approach to world peace.   It may be argued that the incommensurability between rationalist and reflectivist theories in International Relations makes such a reinterpretation theoretically awkward. However, there is a theoretical basis for such an expansion set by Brown (1992) and Dyer (1997) who explain the relationship between empirical and normative theory.   They both argue that the distinction between empirical and normative theory in terms of dichotomies such as facts versus values, description versus prescription and is versus ought is too absolute. Values play an important role in much of what is traded as non-normative (thus descriptive, value-free) theory (Smith 1992:497), while normative theory by definition includes facts and descriptions of 'what is'. Inasmuch as norms are standards, measures, patterns or types considered representative of a group, they are descriptive 'of typical or customary behaviour' or 'reports of the average or median outcome of certain activities' – thus, 'what is' (Stroll in Dyer 1997:15). Deviation or conformity may only be viewed as a pejorative or commendatory basis for prescription, once it has been determined (descriptively) what is normal in a given context.   Thus, empirical and normative theories are not as incommensurable as they are made out to be.

The expansion of the democratic peace approach to include both a rationalist and reflectivist interpretation is justified on this basis. The rationalist explanation of the 'fact' of a democratic peace between states and the 'fact' of new circumstances brought about by the information revolution provide the foundations for the theoretical expansion of the democratic peace and its prescribed application in the information era as an approach to peace.

US and Western bias: The study heavily relies on US and Western literature and examples and it may therefore be argued that the findings are inherently biased. The US and Western bias is partly explicable by referring to the research problem and objectives, namely to analyse the causality and deductive structures associated with democracy, IT and world peace in existing text. The fact that the United States and other Western countries are at the forefront of the information revolution and have therefore explored the implications of IT for democracy and peace to a greater extent than other parts of the world, means that US and Western literature dominate the subject. Although this may distract from the representativeness of the study, the findings are not necessarily biased. Pains have been taken to indicate that the democratic norms (security, freedom, justice and community), which underlie the idea of a global democratic peace, are not confined to Western liberal interpretations of democracy and peace, but globally applicable. Furthermore, the recommendations (elements of transformation) that the study proposes emphasise the need for more diversity in Internet governance structures, global civil society and the global media.

6. CONCLUSION

The past century has been one of the bloodiest centuries in the world's history. This can firstly be attributed to interstate wars, most notably World War I and World War II, secondly to intrastate wars, such as civil wars and state oppression of citizens and thirdly to the 'silent wars' that threaten human security, such as poverty and disease. On the other hand, this century has also been a period of unprecedented scientific discovery and technological development. It seems contradictory that amidst technological progress, overall human security has not improved more. In fact, technological progress has often exacerbated conflicts and human insecurity through advances in weaponry on the one hand and negative economic and environmental consequences on the other. The developments in IT of the past four decades have been heralded as revolutionary and are already fundamentally impacting on the everyday lives of most people whether directly or indirectly. It is argued that the prospects for world peace can greatly be enhanced by IT if its democratic proclivities are sustained and exploited. These proclivities involve the ease with which IT allows individuals and groups on a decentralised level to be informed and to communicate outside of normal hierarchies. To sustain this, those that design and regulate

IT (especially the Internet) need to do so in a democratic way. In other words, they must be representative of all the stakeholders and their activities must be open to scrutiny by the public. By exploiting these proclivities, democracy cannot only be enhanced qualitatively and quantitatively, but also be globalised. As a result, interstate wars are likely to decrease, because democracies hardly ever wage war with one another. On the other hand, wars of a post-modern nature (that goes beyond lethal, overt violence between states) can be addressed by the efforts of a global civil society that mobilise to promote and institutionalise democratic norms of security, liberty, justice and community. In both these instances the media can play an important intermediary role.

In terms of the research objectives as formulated, the causal structures associated with democracy, world peace and IT in literature propose that the probability of a causal relationship between democracy and world peace on the one hand, and IT and democracy on the other hand, exists. From this can be deduced that it is likely that IT will promote world peace and hence, that the democratic peace is a plausible approach to world peace in the information era. This conclusion is based on a neo-liberal interpretation of what constitutes peace, namely the absence of interstate war. In the information era, war is not confined to states and lethal violence between them. Therefore the neo-liberal interpretation of the democratic peace is not a comprehensive approach to world peace. An approach to peace that will remove institutional obstacles and promote structural conditions to facilitate the growth of socio-cultural, economic and political trends aimed at achieving living conditions congruent with such values as security, non violence, identity, equity and well-being is necessary.

In this respect, the study embarks on the normative research objective of prescribing the theoretical expansion of the democratic peace along Kantian cosmopolitan lines and formulate it in a reflectivist way. The expansion of the democratic peace construct in such a way is practically possible because the information revolution has created a global village in which global public spheres and a global civil society can be maintained. However, unlike the neo-liberal interpretation of the democratic peace that objectively studies the phenomenon of peace between democracies, the approach taken here is one of transformation. The democratic peace is not inevitable, but it is a probable outcome of circumstances in the information era if certain elements of transformation are promoted.

These elements of transformation are recommended to direct IT towards democracy and world peace. A democratic peace, based on global democratic norms of security, freedom, justice and community is not only a plausible, viable and feasible, but also a comprehensive approach to world peace in the information era.