Preface

The Ideology of High-Tech/Postmodern War vs. the Reality of Messy Wars

By Douglas Kellner

One of the distinguishing features of our time in a blatant contradiction between the ideology of high-tech war vs. the reality of increasingly messy and unpredictable wars. During the 1990s an ideology of high-tech war emerged that claimed that military weapons, planning, and strategy were much more precise and rational. During the Gulf War of 1991, it was claimed that bombing was the most precise in history and civilian casualties were minimized as never before, a claim, however, subject to contestation (see Kellner 1992). As computers and information technology developed during the 1990s doctrines of a "revolution in military affairs" (RMA) and "network-centric warfare" (NCW) claimed a complete transformation in the U.S. military was taking place that would completely transform the nature of war.

But after the 2001 terror attack on New York and Washington, it was admitted that a new type of unanticipated type of war had emerged, and it was clear from the daily television coverage that war was more unpredictable, chaotic, asymmetrical, and more destructive of civilian lives and habitants than the new ideologies of high-tech war had indicated.

Although initially the Bush/Cheney administration and Pentagon used the ideology of high-tech clean and precise wars to extol their apparently dramatic military victories in Afghanistan and Iraq and the ideology of new high-tech war continued apace, subsequent results in both Afghanistan and Iraq have suggested that the claim of a new revolution in warfare was premature and that Bush-Cheney-Pentagon claims of victories in Afghanistan and Iraq because of the precision and might of U.S. military technology were simply false.

Indeed, throughout the world, since 9/11, war has become messier, more chaotic, and more deadly to civilians, human habitats, and the natural environment, and thus the new era of war is increasingly violent, barbaric, and unpredictable, as studies in this book indicate. To set up the concept of "messy wars" and provide a context for the work that follows, I first want to sketch out the doctrines of a "revolution in military affairs"(RMA) and "network-centric warfare" (NCW) that I take to be an emergent ideology of high-tech war. I will then indicate some of the problems with this new conventional wisdom and the need for alternative thinking, such as the authors of this book provide.

Networked Centric War born out of RMA

During the 1990s, reflections proliferated on the transformation of war with the incorporation of information technologies in the warfare state and the development of more de-centralized forms of military organization and a networked society. The first issue of Wired magazine featured a cover story by cyberpunk writer Bruce Sterling (1993) on high-tech war and during the same year cybertheorists Alvin and Heidi Toffler (1993) published a book on the modes of "war and anti-war" that were unfolding in the supposed era of "Third Wave" civilization. By 1995, such views were evident in media culture with Time magazine publishing a cover story on "Cyberwar" (August 21, 1995), and with a cycle of films presenting technowarriors i.e. *The Terminator* series, the *Cyborg Cop* series, *Universal Soldier*, *Cyborg Soldier*, and *The Matrix*, providing background for the analysis in chapter 4 of *Messy Wars* on "Fragmentation of Soldiers".

The accelerated role of information technologies in the allegedly new forms of "postmodern war" has led some theorists to talk of a "revolution in military affairs" and a new "Network-Centric Warfare." Michael Ignatieff has described in his *Virtual War* (2000) the "revolution" in terms of the deployment of precision targeting at a distance and use of computers, also noting conservative military resistance to calls for dramatic transformation of the military. These changes have been produced "by the co-evolution of economics, information technology, and business processes and organizations." They are, in the words of military authorities, linked by three themes: shifts from platform to network; a change from viewing actors as independent to viewing them as "part of a continuously adapting military-techno ecosystem"; and the "importance of making strategic choices to adapt or even survive in such changing ecosystems" (see, for examples, such books as Levidow and Robins, editors 1989; Arquilla and Ronfeldt 1996; Schwartau 1996; Gray 1997 and 2001; Best and Kellner 2001).

The postmodernization of war thus pertains to the increasing displacement of humans by technology, and the next phase of technowar will probably reveal more "smart machines" supplementing and even replacing human beings. The 1991 Gulf intervention, the 1999 NATO war against Serbia, the 2001 Afghan war, and second Iraq war of 2003, still raging despite Bush's claim of "Mission Accomplished in May 2003, saw a widespread exploiting of drones, pilotless planes engaged as decoys and as instruments of surveillance, in addition to Cruise missiles and other "smart" weapons. The U.S. military is developing "unmanned" technologies for ground, air, and undersea vehicles. Smart tanks are already under production and as Chris Hables Gray (1989, 54) notes in Les Levidow and Kevin Robin's book *Cyborg Worlds*:

> There are projects to create autonomous land vehicles, minelayers, minesweepers, obstacle breachers, construction equipment, surveillance platforms, and anti-radar, anti-armor and

anti-everything drones. They are working on smart artillery shells, smart torpedoes, smart depth charges, smart rocks (scavenged meteors collected and then 'thrown' in space), smart bombs, smart nuclear missiles and brilliant cruise missiles. Computer battle-managers are being developed for AirLand battle, tactical fighter wings, naval carrier groups, and space-based ballistic-missile defense.... the Army even hopes to have a robot to "decontaminate human remains, inter remains, and refill and mark the graves."

By now the concept of postmodern war is widespread in the media and public sphere like the Internet. For instance, a 1999 ABC news program on "Postmodern War" indicated a profound reorganization process in the military that is undergoing changes from heavy, slow, and large-scale machinery, such as 70 ton tanks, to smaller, lighter, faster, and more flexible vehicles. These are equipped with more accurate "smart" weapons and better mapping and sensor technologies which demand less "manpower" (see abcnews.com, 11/03/99). Exotic high-tech military devices include MEMS (Micro Electrono-Mechanical Systems) that will produce tiny airplanes or insect-like devices that can gather intelligence or attack enemies. MARV (Miniature Autonomous Robotic Vehicle) technologies and various other automated military systems would guide robot-ships, disable land-mines and unexploded arms, and provide more effective sensors, stabilization, navigation, control, and maintenance devices. These technologies would ultimately construct cyborg soldiers who will incorporate such devices into their own bodies and equipment. Such miniature machines and cyberwarriors would be capable of gathering information, processing it, and then acting upon it, thus carrying through a technological revolution based on new intelligent machines.

Indeed, military strategists and capability builders claim that the next generation of Armed forces will be "Net-ready," as in the U.S. Army development of a battlefield digitization project while it develops and fields a new family of lightweight, easily deployable combat vehicles, which will have digital technology built into them, rather than bolting it on as the Army has had to do with older tanks and Bradley Fighting Vehicles. Cyborg soldiers are also utilizing the Global Positioning Satellite system (which can be accessed from a computerized helmet) for precise mapping of the "enemy" and terrain. With the complex communications systems now emerging, all aspects of war -- from soldiers on the ground and thundering tanks to pilotless planes overhead -- are becoming networked with wireless computers providing information and exact locations of all parties. Robot scouts can roam the terrain sending back data instantaneously to commanders. SIPE (Soldier Integrated Protection Ensemble) is an army software program designed to merge all military digital technologies into one

integrated data system. Even the physical state of the soldier can be monitored by computers, and one can imagine surgeons operating on wounds from continents away by using robots and the technology of "telemedicine."

Hence, phenomenal new military technologies are being produced in the Third Millennium, described as the instruments of an emergent postmodern warfare, and envisaged earlier by Philip K. Dick and other SF writers. These military technologies, described in *Messy Wars*, are changing the nature of warfare and are part of a turbulent technological revolution with wide-ranging effects. They are helping to engender a novel type of highly intense "hyperwar," cyberwar, or technowar, where technical systems make military decisions and humans are put out of the loop, or are forced to make instant judgments based on technical data. As computer programs displace military planners and computer simulations supplant charts and maps of the territory, technology supersedes humans in terms of planning, decision making and execution. On the level of the battlefield itself, human power is replaced by machines, reducing the soldier to a cog in a servomechanism. These developments are alarming and led French theorist Paul Virilio (1989, 84) to comment in *War and Cinema*:

> The disintegration of the warrior's personality is at a very advanced stage. Looking up, he sees the digital display (opto-electronic or holographic) of the windscreen collimator; looking down, the radar screen, the onboard computer, the radio and the video screen, which enables him to follow the terrain with its four or five simultaneous targets; and to monitor his self-navigating Sidewinder missiles fitted with a camera of infra-red guidance system .

The autonomization of warfare and ongoing displacement of humans by technology creates the specter of technology taking over and the possibility of military accidents, leading to, Virilio warns us, the specter of global catastrophe. There is a fierce argument raging in military circles between those who want to delegate more power and fighting to the new "brilliant" weapons opposed to those who want to keep human operators in charge of technical systems. Critics of cyberwar worry that as technology supplants human beings, taking humans out of decision-making loops, the possibility of accidental firing of arms at inappropriate targets and even nuclear war increases.

Since the 1980s, Virilio criticized the accelerating speed of modern technology and indicated how it was producing developments that were spinning out of control, and that, in the case of military technology, could lead to the end of the human race (see Virilio and Lotringer's *Pure War* 1983). For Virilio, the acceleration of events,

technological development, and speed in the current era unfolds such that "the new war machine combines a double disappearance: the disappearance of matter in nuclear disintegration and the disappearance of places in vehicular extermination" (Virilio 1986: 134). The increased pace of destruction in military technology is moving toward the speed of light with laser weapons and computer-governed networks constituting a novelty in warfare in which there are no longer geo-strategic strongpoints since from any given spot we can now reach any other, creating "a strategy of Brownian movement through geostrategic homogenization of the globe" (Virilio 1986: 135). Thus, "strategic spatial miniaturization is now the order of the day," with microtechnologies transforming production and communication, shrinking the planet, and preparing the way for what Virilio calls "pure war," a situation where military technologies and an accompanying technocratic system come to dominate every aspect of life.

In Virilio's view, the war machine is the demiurge of technological growth and an ultimate threat to humanity, producing "a state of emergency" where nuclear holocaust threatens the very survival of the human species. This consists of a shift from a "geo-politics" to a "chrono-politics," from a politics of space to a politics of time, in which whoever commands the means of instant information, communication, and destruction is a dominant sociopolitical force. For Virilio, every technological system contains its specific form of accident and a nuclear accident would be catastrophic. Hence, in the contemporary era, in which weapons of mass destruction could create an instant world holocaust, we are thrust into a permanent state of emergency with high-tech networks that enables military state to impose its imperatives on ever more domains of political and social life, as shown in Messy Wars' chapter 3 about war environment.

Limitations of Postmodern/Networked Centric War

I discussed French theorist Paul Virilio's worries about the limitations of high-tech war in the preceding discussion. Here I will discuss recent political/military events to point to the limits of postmodern war that suggest the need to rethink warfare and military strategy, as do Huhtinen and Rantapelkonen in *Messy Wars.*

The first weeks of U.S. bombing in Afghanistan in 2001, following the September 11 terror attacks on the U.S., unfolded high-tech warfare in a wildly uneven battle against Taliban and Islamic forces with ancient munitions, a first world military against a fourth world one that still used horse-back troops and revered swords. Old-fashioned B-52's saturated large areas with explosive munitions while winged B-2 Bombers aloft for days flew from the U.S. to drop bombs directed by Global Positioning System Satellites often with mixed results. With its 172-foot wingspan, these giant flying birds deployed Joint Direct

Attack Munitions (J-DAM) to fire a wide array of weapons. Heavy AC-130 gunships armed with howitzers, cannon, and machine guns blasted supposed Taliban and Al Qaeda camps and material, while land-based F-15Es bombed enemy positions, with giant fuel-air explosive "bunker bombs" used to blow up munitions dumps and possible mountain and tunnel hide-outs.

The U.S. and western allies in Afghanistan carried out a war strategy with a pure application of RMA. After a couple of days of bombing from 15,000 feet, Rumsfeld admitted in a briefing that there weren't many bombing targets in Afghanistan. The high-tech military was forced to put commandoes on the ground, one on horseback in a famous picture, also getting involved networking with local anti- Taliban forces and former war criminals, most centrally the northern alliance and its various warlords. In late October 2001, there were reports of helicopter assaults on Taliban positions, Special Ops forces landing seeking Taliban and al Qaeda forces, and the beginning of a longer, more complex campaign. There was much speculation that this was the beginning of a ground war in which U.S. troops would rout the Taliban. U.S. ground forces never intervened, however, and although the Taliban regime collapsed, Osama Bin Laden and major Al Qaeda and Taliban leaders and forces escaped.

Thus while there were reports that Bin Laden and other Taliban and Al Qaeda leaders were located in Tora Bora in December 2001, the U.S. relied on local warlords to apprehend them and they got away. Hence, although the U.S military intervention quickly dispersed the Taliban, led to the rapid collapse of their regime, they failed to capture key Taliban and Al Qaeda forces, including their leaders who continue to intervene in Afghanistan and taunt the U.S. even today, while threatening more global terrorist attacks.

Consequently, as of early 2002, the results of the U.S. military intervention were mixed at best, with Al Qaeda and Taliban leaders still at large, millions of refugees and war victims facing starvation, and Afghanistan in chaos. Since then, the Afghanistan regime has stabilized, there are NATO troops supporting the Karzi regime, but also increasingly messy guerilla style wars going on throughout the country, marked by the resurgence of the Taliban; increasing violence and chaos; return of major world drug trade; fragmentation into different areas controlled by warlords; wild and savage zones; and the adoption of guerrilla war tactics used in Iraq, such as suicide bombers, roadside IED bombs, assassinations, kidnappings, and indiscriminate murder of civilians to destabilize the regime.

The networks in the ongoing war for Afghanistan are not high-tech ones, but human networks. From the existing U.S. networked centric war perspective the key to successful warfare involves reliance on high-tech warfare, but its limitations are revealed in Afghanistan and elsewhere as a deficiency of troops on ground, reliance on unreliable

local forces, and inadequate local knowledge and connections.

Hence, in Afghanistan, the bad guys got away and regrouped, violence has continued, and today there is a resurgence of the Taliban and Al Qaeda forces, a growing drug trade, and a growing zone in the tribal areas of Afghanistan and Pakistan that are constituting a hotbed of terrorism. Military theoreticians have come to describe such conflicts as "asymmetrical," since the Taliban and Al Qaeda forces have no sophisticated weaponry or modern military organization. While during the 2001 Afghanistan incursion, the U.S. military claimed that it was destroying Taliban "command and control" centers, there was in reality no command or control, at least in the sense normally defined by the contemporary military. Videos showed daily in U.S. military briefings depicted U.S. bombs hitting obscure buildings or vehicles, but it wasn't clear that these were really military targets, or that the Taliban had a military force in the conventional sense.

In retrospect, the Afghanistan intervention represented a new step toward postmodern war, one that clearly discloses its limitations. New armed unmanned aircraft like the RQ-1 Predators were reportedly in the field, armed with Hellfire antitank missiles, although reports emerged that bad weather was limiting their effectiveness and many were crashing. An even larger and longer-range unmanned surveillance aircraft armed with missiles, the RQ-4A Global Hawk, that could bring weapons from the U.S. to the other side of the world, was also reported to be in action. Afghanistan thus emerged as yet another testing ground for new weapons and strategies where humans would be replaced by machine satellite-guided planes, taking "postmodern war" and the "revolution in military affairs" to a higher level.

Obviously, Iraq constitutes even a more dramatic failure of postmodern Pentagon military doctrine and the so-called Bush doctrine. While it was relatively easy to defeat the troops of Saddam Hussein, themselves demoralized from decades of war and inadequate equipment and training, the U.S. obviously had no political plan to stabilize Iraq and opened itself to a Pandora's Box of Horrors. Indeed, stacks of books have been written on the fateful Iraq war, certainly one of the messiest in history, and one that provides Huhtinen and Rantapelkonen with copious examples of their theory of messy wars.

One could argue, as do I and the authors of this book, that the U.S. Afghanistan and Iraq strategy appears to have failed because the Pentagon followed too narrowly the so-called RMA doctrine and its reliance on primarily high-tech weapons and air war. In addition, it is clear that the Bush doctrine of preemptive wars failed in Iraq because there was no plan to end the war and stabilize Iraq, there were not enough U.S. and allied troops on the ground on the ground to stabilize the country and prevent the looting and chaos that followed, and ultimately there was neither adequate domestic support for the endeavor in the U.S. while globally there was strong opposition from the start.

Thus in Iraq the U.S. overly relied on high-tech technowar and air war, and a deeply flawed political-military doctrine that had supposedly replaced the Powell doctrine.

In both the Afghanistan and Iraq cases, I would argue that the Powell doctrine which requires adequate boots on the ground, adequate number of troops both to defeat the enemy and guarantee victory by protecting occupying troops (Force protection) and stabilizing the country, could serve as an antidote to the stupendous failures of the Bush-Cheney administration and Pentagon, with their problematic military and geopolitical strategies. These failures, I would suggest, require renewed reflection on the cogency of the Powell doctrine, which includes having clear and rational war aims, public support from citizens and allies, and a successful endgame.

In addition to experiences in the Afghanistan and Iraq wars, the so-called War on Terror, that I call Terror War, puts in question the fundaments of the postmodern networked centric warfare doctrine. The post-9/11 global war against terrorism has highlighted the importance of intelligence and capabilities to know the enemy, its goals, support networks, and tactics. In Afghanistan, inadequate intelligence sources on the ground to track Taliban and Al Qaeda leaders; the failure to see coming instability and turbulence with alliances with warlords who were major drug dealers who brought back the opium and heroin trade and who were sympathetic in some cases to Islamic radicalism; and alliances with antidemocratic, corrupt and authoritarian forces who were likely to provide impediments to having a stable democratic regime in Afghanistan, all demonstrating the need to have adequate on the ground and local intelligence for rational military polices.

Another limitation revealed by both the Afghanistan and Iraq interventions is excessive faith in high-tech net-centric technowar, showing that you need boots on the ground and adequate military forces, as well as sound intelligence, to defeat enemy forces and stabilize the country. Unfortunately, while there are reams of emerging papers and books on the U.S. failure in Iraq, there is less critique of U.S. policy in Afghanistan and little official or public debate over the limitations of networked centric high-tech war and its failures in Afghanistan, Iraq, and the war against terrorism.

Messy Wars, the Postmodern Turn, and the Need to Rethink Military Doctrine

Wars have always been messy and involved violence, upheaval, unpredictability, and unforeseen results. Modern war tried to cope with the fact of the irrationality of war with modern, mechanized armies, based on discipline, technological organization, and hierarchical command structures. The model involved methods of command and control in which a military machine would triumph over enemy forces based on a

rational control of the battlefield. Modern wars fit into the paradigm of modern, massified, bureaucratized and highly organized systems, which characterized the modern economy, corporation, state, media, schooling, and other modern institutions. In modern warfare, centralized modern states organized rationalized military machines to fight machines of other states who tended to have similar military and state organizations, structures, institutions, and strategies.

The paradigm shift toward postmodern wars in the 1990s involved many of the same rationalistic presuppositions of modern war. The goal is still to control the battlefield, to dominate the enemy, and to develop military machines and practices to ensure victory. In its earliest paradigms, the concept of postmodern war took over two tenets of postmodern theory that led to novel thinking and military practice: the transformation of humans by technology accompanied by the implosion of technology and the human _and_ the virtualization of reality in high-tech information systems. Postmodern war involved new concepts of the techno-soldier, incorporating new technologies into every dimension of warfare from planning to weapons, and fighting network-centric war in information systems and media system, which involved new sites of warfare. Postmodern war is fought in information systems and cyberspace and also involves the production of war as media spectacle, in which wars are fought in the media as well as battlefield (see Kellner 1992, Best and Kellner 2001, Kellner 2003 and 2005).

But these paradigms of postmodern war omit certain features of postmodern theory that are increasingly relevant for rethinking politics, war, and social life in the contemporary moment: fragmentation and new paradigms of postmodern science based on chaos and complexity theory. Postmodern theorists have talked of societal fragmentation, of the implosion of boundaries between gender, race, sexuality, as well as eroding of boundaries of the nation state in a global world, and the fragmentation of communities and reconstruction of fragmented identities in cyberspace (Best and Kellner 1991, 1997 and 2001). At the same time, new paradigms in postmodern science have rejected Cartesian and Newtonian science based on causal determinism, linear thought and prediction, and hard and fast scientific laws for new sciences of chaos and complexity theory where "reality" is seen as always mutating, changing, and re-organizing itself in multiple spaces of social reality and on multiple levels. In these new paradigms, self-organization and the co-construction of nature, society, technology, and human life replaces the fixed causal and hierarchical thinking and science of modernity (see Best and Kellner 1996 and 2001).

In retrospect, it appears a fantasy that new technologies and information systems would produce new military systems and machines that would use technology to dominate battlefields and win wars. In the "war on terror," with its always emerging and shifting networks, often invisible and hard to detect, new tactics are at play that require new

thinking on military intelligence, strategy and organization. New types of soldiers are necessary to fight complex wars that take place on economic, political, and cultural levels, as well as battlefields or sites of insurgency and urban guerilla warfare. Huhtinen and Rantapelkonen stress the importance of human intelligence, local knowledge, solders' autonomy, and the ability for creative thought and action as a new type of military thought and practice appropriate for the "messy wars" of the present and future.

Such new modes of thought are especially relevant for military planning after 9/11 in face of an unpredictable Terror War and in relation to the constantly evolving technological revolution in military affairs. As Huhtinen and Rantapelkonen emphasize, new networks require new thinking and strategy, and emergent, more complex, and ever shifting battlegrounds require a new postmodern rethinking of the military and military strategy appropriate to the ever evolving and complexifying aspects of the contemporary world.

It was a fantasy of the Enlightenment and modern world that society would become more rational, suspectible to control, and that centralized hierarchical powers like the state and the military could control disorderly social realities and impose a rational system on the world. As current developments in a global world suggest, social realities are becoming more complex, societies are more fragmented and conflictual, and developments in the economy, politics, and military sphere are becoming more unpredictable. In such a situation, we need new paradigms to help us think through the novelties and challenges of the current situation and Huhtinen and Rantapelkonen pose questions and suggest ideas that will help with this process.

My latest book *Guys and Guns Amok* (Kellner 2008) focuses on U.S. school shootings and other acts of mass violence that I argue embody a crisis of an out-of-control gun culture and male rage in contemporary U.S. society that points to crises in masculinities and male culture. I criticize male socialization and a glorification of hypermasculinity and violence in the media that posits redemptive violence as the solution to social problems and that glorifies militarism. Reading *Messy Wars* by Aki Huhtinen and Jari Rantapelkonen it appears that both Western and non-Western socieities are careening out of control, that war and social life are becoming increasing messy, and the fantasy that the military can solve complex problems and establish rational order is no longer sustainable. As the authors suggest, part of the problem is the military doctrine of networked-centric warfare that believes technology and military violence will solve all problems and be a rational instrument of state policy. The glorification of warfare forgets the warning by Dwight Eisenhower concerning an out of control military-industrial complex and *Messy Wars* suggests that we need to reflect on Eisenhower's Farewell Address and rethink and restructure the role of the military in today's world.

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