Cyber-Mobilization: The New "Levée en Masse"

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The means and ends of mass mobilization are changing, bypassing the tra-
ditional state-centered approach that was the hallmark of the French
Revolution and leaving advanced Western democracies merely to react to
the results. Today's dynamic social, economic, and political transitions are
as important to war as were the changes at the end of the 18th century that
Clausewitz observed. Most important is the 21st century's *levée en masse*, a
mass networked mobilization that emerges from cyber-space with a direct
impact on physical reality. Individually accessible, ordinary networked com-
munications such as personal computers, DVDs, videotapes, and cell phones
are altering the nature of human social interaction, thus also affecting the
shape and outcome of domestic and international conflict.

Although still in its early stages, this development will not reverse
itself and will increasingly influence the conduct of war. From the global
spread of Islamist-inspired terrorist attacks, to the rapid evolution of insur-
gent tactics in Iraq, to the riots in France, and well beyond, the global, non-
territorial nature of the information age is having a transformative effect on
the broad evolution of conflict, and we are missing it. We are entering the
cyber-mobilization era, but our current course consigns us merely to react to
its effects.

Background: The Levée en Masse
in the French Revolution

The French Revolution marked the beginning of the age of modern
warfare, characterized by the culmination of a fundamental shift from dynas-

tic warfare between kings to mass participation of the populace in national warfare. Although the Treaty of Westphalia of 1648 is commonly cited as the point of origin for the sovereign state, the French Revolution marks its true consolidation, with the formal abolition of the Holy Roman Empire as the result of Napoleon's conquests in 1806.[1] The character of war is constantly in flux: the American Revolutionary War was associated with many of the same anti-authoritarian passions that powered the French Revolution. But as George Washington's correspondence reflected, without national institutions to support the army, the problem of mobilizing and directing resources hobbled the American colonists' war effort. The key element in the firm establishment of the modern secular state within the West, and a watershed in the evolution of modern war, was the state's connection with the mass mobilized army. And at the heart of that new army was the *levée en masse*.

The French term *levée* has two meanings in this context, both "levy" and "uprising," each of which is important for understanding the nature of the *levée en masse* and its relationship to the dramatic changes that occurred in warfare at the time.[2] In its first meaning, the levy referred literally to the 23 August 1793 decree by the French National Convention that the entire population was obliged to serve the war effort. As a result, all single men between the ages of 18 and 25 were required to join the army. The French population at the time was the second largest in Europe, bested only by the Russians, and thus it supported a huge military mobilization: by September 1794, the French Republic had 1,169,000 men under arms, out of a total population of about 25 million.[3] For comparison, the current population of France is approximately 61 million, with about 134,000 on active duty.[4] The percentage of population mobilized during the wars of the French Revolution was unprecedented in Europe, in itself a revolutionary achievement. Therefore, the first meaning of the word referred literally to the goal of mass mobilization: the provision of large numbers of soldiers supported by the people.

For all of his brilliance as a general, Napoleon could not have accomplished his dramatic transformation of the European landscape without

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the broad-based participation of the French populace, both its young male conscripts and its civilian labor, and his ability to harness these things for the army. Numbers were crucial to the strategy of the French Army, enabling it to function on several fronts simultaneously and to sustain casualties that its opponents usually could not bear.[5] The French tended to win when they had superiority in numbers. They enabled Napoleon to take greater risks, engage more often in battle, spread his troops over wider territory, and embark on more daring political ends.[6] His opponents soon learned to counter his mass, with the result being a dramatic increase in the average number of men engaged in European battles, from a height of 60,000 to 80,000 on the field in the mid-17th century, to a total of 250,000 (Wagram, 1809; Borodino, 1812) or even 460,000 (Leipzig, 1813) by the early 19th century.[7] The resulting mobilization of the people in the service of the state, indeed now actually embodying the state, was a watershed. It foreshadowed the nationalized warfare of the industrialized era that followed, culminating in the First and Second World Wars. For Napoleon, the people were clearly the "engine of war."

This literal meaning of the *levée en masse*, referring to mass conscription, is best known. But its second meaning, *levée* as uprising, is more crucial in explaining the paradigm shift now under way. If conscription was the end, inspiration was the means. Education and ideology helped to drive young men to the army and the broad population to support of the war effort.[8] The French populace was reached, radicalized, educated, and organized so as to save the revolution and participate in its wars. It is no accident that the rise of mass warfare coincided with a huge explosion in the means of communication, particularly a dramatic growth in the number of common publications such as journals, newspapers, pamphlets, and other short-lived forms of literature. No popular mobilization could have succeeded in the absence of dramatically expanding popular communications.

The publishing world in France was deregulated between 1789 and 1793, resulting in a sharp drop in the publication of books and a corresponding dramatic increase in shorter, cheaper, more accessible forms of communication. Censorship of forbidden texts, particularly so-called "philosophical books," was also removed. The resulting spread of the ideology of the Enlightenment drove cultural and social changes, with a free and extensive public exchange of ideas that had been illegal under the old regime. The highly competitive, chaotic publishing trade that resulted moved toward an emphasis on shorter, more frequently produced, less capital-intensive tracts intended to reach a broader market and earn a quick profit. Over the course of the French Revolution, the number of journals produced in Paris went from four to a peak of 335, the number of printers quadrupled, and the number of

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publishers and sellers nearly tripled.[9] Ideas spread by exploiting the freest and cheapest of all possible means of communication, within the constraints of the technology of the time.

Thus the deregulation of the presses democratized communications. The outcome was a dramatic expansion vertically, horizontally, and temporally, as communications more frequently reached a wider range of people, some of whom could not even read. In the provinces, a strong tradition of reading aloud in homes or worship services flourished. The oral tradition also encompassed a large number of songs, printed and distributed or simply heard and repeated. Famous songs such as the "Marseillaise" created unity and a sense of republican identity. Revolutionary images were also extremely important; the storming of the Bastille by the Parisian populace on 14 July 1789 was pictured in a flood of newspapers, pamphlets, and engravings. Such powerful symbolic pictures appeared on paper money, letterheads, stamps, membership cards, calendars, even wallpaper and children's games. Communications were central to developing a national identity, a sense of passion among the people, who were thus motivated to fight for the broader cause.

The role of the poor French peasant in particular, supporting the revolution and fighting its wars, was central to the power of the popular army. The passionate participation of the working-class Frenchman, who previously would not have been granted the right of citizenship, was a vital evolution in the organization for war.[10] The unprecedented range of communications effected a transformation of individuals in the lower strata of French society into the "People," the holders of popular sovereignty.[11] They also enabled the quite conscious building of a national identity: from a focus on warfare in the service of local nobility, those on French territory drew themselves into one focused and motivated fighting unit. The French people believed that they were fighting a war for freedom and against tyranny, for their revolution and against monarchical power, and the bombardment of information from above and within consolidated those beliefs. In this culmination of social, political, and military change, the French nation and the army were as one.

Carl von Clausewitz's expression of war as the continuation of politics "with an admixture of other means" was at least in part a description of this extraordinary process of physical and ideological mobilization of the masses into war in the service of the French Republic. The French military mobilization was admittedly not an instantaneous and overwhelming success: its effects were felt gradually, required trial and error in organization, and combined elements of old and new. Clausewitz's *On War* was essentially a philosophical treatise in Hegelian tradition, examining elements of continuity and change and working toward a new synthesis. But he stressed that war could be understood only within its political, social, and historical circumstances. Even as he also appreciated that the massive French mobilization he had witnessed might not necessarily be the model for future wars, Clausewitz recognized the political forces that Napoleon had harnessed and understood their larger significance.

Emerging "Cyber-mobilization"

Today's Western armies are faced with ends and means of mobilization that diverge from those that predominated during the era of revolutionary nationalism. In its inherent connection to changes in communication, its ideological narrative, and even its employment of specific means, the process currently in progress is a historical successor to the popular uprising at the heart of the changes that Clausewitz observed. Instead of driving toward the industrialized state, 21st-century mobilization is presently perpetuating a fractionation of violence, a return to individualized, mob-driven, and feudal forms of warfare.

Under way is a broad social and political evolution through ordinary communications that reach vulnerable individuals and catalyze changes in violence. The typical focus of military planners on using high-end tools for tactical connectivity has missed the point: what is unfolding is a widespread egalitarian development more related to the explosion of publications and printing that catalyzed and consolidated the French Revolution than it is to the high-technology military advances of the late 20th century. We are poised at a new era, ripe for exploitation in unpredictable and powerful ways. Western nations will persist in ignoring the fundamental changes in popular mobilization at their peril.

Numerous, obvious parallels to the revolutionary years of the late 18th century can be drawn. These include a democratization of communications, an increase in public access, a sharp reduction in cost, a growth in frequency, and an exploitation of images to construct a mobilizing narrative. Each will be treated here in turn.

First, today's means of communication have gone through a process of deregulation and democratization similar to that which occurred in France at the end of the 18th century. The result has been a global explosion in chaotic connectivity. The press of the revolutionary era developed in an institutional vacuum, with no copyright, no rules on publishing or journalism, no concept of intellectual property, no libel laws or vetting of information.[12] Although states like China and Singapore have recently instituted highly controversial web censorship, for good or ill the current state of cyber-space is roughly comparable to the era of expansion in publishing that followed the deregulation of the French press. Few institutional frameworks or standards provide structure in cyberspace, and the broad political potential of this new realm is little analyzed or understood.

Second, there is a dramatic increase in popular access to information. The Internet was designed during the height of the Cold War to be redundant, decentralized, persistent, and survivable in the event of a nuclear attack. After the disintegration of the Soviet Union, the world wide web consortium was created to facilitate the spread of global connectivity. It has wildly succeeded. Throughout the 1990s, the use of the Internet at least doubled each year, and although the pace has recently slowed somewhat, global connectivity continues to grow.[13] Currently there are more than a billion Internet users in the world, with by far the largest number in China.[14] The resulting popular access to the web provides those same structural advantages of decentralization and survivability to ordinary people, including businesses, nongovernmental organizations, and advocacy groups, but also to members of criminal networks, gangs, terrorist groups, traffickers, and insurgents. Effective combinations of new technologies, such as laptops and DVDs, along with "old" technologies, such as videotapes and cell phones, are facilitating political and social movements driven by newly powerful ideologies. The result is creative anarchy, full of heady opportunity but also pregnant with unpredictable change and real-world effects, especially for war.

Third, the Internet and associated technologies represent the same type of low-cost, high-regularity communications that were so popular during the French Revolution. While vast regions of the world continue to lack computer access, growth in connectivity in the developing world now represents the key force behind the global expansion of the Internet.[15] Of course, cyber-mobilization need not be directly correlated with numbers on the net; in less connected local or regional settings, access by individuals and small groups can give them disproportionate power. Cell phones are especially popular in countries that lack a fixed infrastructure for land-line telephones; in 2002, the number of mobile phones per capita internationally for the first time exceeded the number of traditional telephones.[16] Today's audience can select

> *"It is no accident that the rise of mass warfare coincided with a huge explosion in the means of communication."*

its sources of information from an astonishing array of choices: blogs are today's revolutionary pamphlets, websites are the new dailies, and list serves are today's broadsides.

Fourth, like its predecessor, today's cyber-mobilization uses powerful images to project messages, even to those who cannot read. There are countless examples. Al Qaeda's mobilization and recruitment techniques are often mentioned: instead of engravings of the storming of the Bastille, al Qaeda's catalytic images are pictures of Osama bin Laden in a cave, attacks on Muslims in Chechnya and Bosnia, Americans' torching of bodies in Afghanistan, and British attacks on civilians in Iraq. In order to demonstrate ruthlessness and gain followers, Abu Musab al-Zarqawi has likewise posted images of beheadings, the training of suicide bombers, live-action attacks in Iraq, a monthly online magazine, and pictures of some 400 "martyrs." Zarqawi's slick video, "All Religion Will Be for Allah," is available for downloading off the Internet and can even be shown on a cell phone.[17] DVDs and videos downloaded on the web or simply passed from person to person and carried across borders contain footage of brutal attacks and fiery speeches. The low cost threshold affects not only the demand side but also the supply side of cyber-mobilization. High-speed Internet access is increasingly available, and inexpensive tools for producing high-quality videos, with greater bandwidth, improved video compression, and better video editing have resulted in much higher-quality films. The outcome of such efforts is a potent mythology of an anti-Muslim campaign and a romanticized image of global resistance to the West.

Despite the obvious differences in their aims, the stories of sacrifice by soldiers of the *levée en masse* are echoed in the statements of jihadists and suicide attackers. For example, during the French Revolution there was a cult for the Martyrs of Liberty, glorifying dead heroes such as Barra, a 12-year-old boy who was killed when fighting in the republican army in the civil war in Vendee.[18] The killing of the 12-year-old Palestinian boy Mohammed al-Dura echoes today. Military propaganda during the French Revolution emphasized the eagerness of the soldier to die. Soldiers lent their blood

"to cement the edifice of sovereignty of the People," and those who died achieved immortality: "The man who dies in service for his fatherland falls [and] gets up. His irons are broken. He is free; he is the King, he seizes heaven."[19] Parallels with today's glorification of suicide attackers are obvious. Personal narratives of injustice, struggle, and noble sacrifice are among the most powerful vehicles for mobilization in any culture, and today they are being actively disseminated over the web.

The effects of connectivity are not only broadening access but also actually changing the meaning of knowledge, the criteria for judging assertions, and the formulating of opinions. As more and more people are tapping into the web, the dark side of freedom of speech, indeed of freedom of thought, has emerged. What is truly authoritative on the web? Whose ideas have legitimacy? What is worth fighting for? As in the French Revolution, assumptions about the answers to these questions, about who is qualified to answer them and how, will have important effects.

When combined with increasing global economic activity moving across porous borders, the vast information available on the Internet, CDs, videotapes, audiotapes, and cell phones is in most places minimally controlled and within reach even of those who cannot read. The result is access by a much broader, less educated, and more varied cross-section of the international population than was touched by 20th-century means. The long-term implications could be either a new era of enlightenment or a return to the dark ages.

Implications for War

In democratizing global communications, the West's initial assumption was that the natural outcome would be the spread of democratic concepts. And to some extent, that did happen. The combination of cell phones and the Internet has facilitated a variety of democratic movements, including the Rose Revolution in Georgia, the Orange Revolution in Ukraine, the sweeping of Philippine President Gloria Macapagal Arroyo into power, anti-globalization protests by groups like Direct Action, and many other types of grass-roots campaigns. Another powerful motivator in the post-Cold War years was the conviction that democracies do not fight each other: with the spread of connectivity would come increasing access to the ideals of the liberal state, an undermining of authoritarian regimes, and a natural reduction in war. Sadly, however, democratic means did not guarantee democratic ends. Like the printing press, television, or radio, these new tools were just as capable of advocating repression and violence as democratic change. The new age of communications has proven to be a double-edged sword.

Like the *levée en masse*, the evolving character of communications today is altering the patterns of popular mobilization, including both the

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means of participation and the ends for which wars are fought. Most important, it is enabling the recruiting, training, convincing, and motivating of individuals who are driven to engage not primarily in the high-tech cyber-attacks that many US policymakers are focused upon, but in old-fashioned violence in the physical world. Today's mobilization may not be producing masses of soldiers, sweeping across the European continent, but it is effecting an underground uprising whose remarkable effects are being played out on the battlefield every day.

The Internet is utterly intertwined with the insurgency in Iraq, for example. Insurgent attacks are regularly followed with postings of operational details, claims of responsibility, and tips for tactical success. Those who use insurgent chat rooms are often monitored by the hosts and, if they seem amenable to recruitment, contacted via email.[20] Insurgent sites contain everything from practical information for traveling to Iraq to morale boosters for those currently involved in the struggle. Videos of killings by the "Baghdad Sniper" or "Juba," who is claimed to have killed 143 American soldiers and injured 54, are posted on the web.[21] Cyber-mobilization already has changed the character of war, making it much harder for the United States to win in Iraq, and it has the potential to culminate in further interstate war in the 21st century.

Just as the telephone, telegraph, and radio eventually engendered countervailing technologies in code-breaking, monitoring, intercepting, and wire-tapping, the United States is gradually recognizing the strategic potential of these means and just beginning to effectively react. Most of the United States' efforts have been focused on counteracting their practical, logistical effects, including terrorist fund-raising on the web, preventing the use of the Internet for logistical coordination, intervening in communications, and tracking statements and websites. These activities are imperative, demanding intelligence collection, monitoring, disinformation, and disruption, but they are embryonic and limited in their scope. The intelligence community's relatively narrow remit cannot cover the full implications of the physical and ideological mobilization that is currently taking place. The parallels drawn here with the *levée en masse* should give us pause.

The good news, however, is that this connectivity can also provide the means to counter the use of these tools to mobilize for radical causes, if the United States will consciously engage in a wide-ranging counter-mobilization. Overall connectivity is far higher in countries that represent more open, democratic societies.[22] This should be a tool that greatly advantages the United States, one that Western military organizations are adept at using themselves. But currently the security implications of connectivity are too controversial to analyze seriously. Americans are too busy worrying about the economic benefits of the web and who is to control it, arguing about impositions on freedom of speech and who is to determine them, willing to neglect the impact of what appears on the web even as it translates into killing people in the real world. The Internet is vital to US security, not only because of its obvious centrality to the American economy, but also because of its less-obvious role in animating our friends and enemies. The state can reclaim the tools of popular mobilization, but only if it will more seriously address the need to understand, react to, and employ them.

Conclusion

The United States needs a counter-mobilization. So-called information warfare and public diplomacy do not capture the extent of this shift. Putting today's developments within their historical context, the United States should get beyond its cultural myopia and turn more attention to analyzing and influencing the means and ends of popular mobilization. We must stop operating as if this dimension of warfare did not exist, because we are bearing the brunt of our unwillingness to confront it. Mobilization is a crucial element, not just in producing numbers of soldiers but, more important, in inspiring violence and crafting the account of the struggle. The information revolution is not just changing the way people fight, it is altering the way people think and what they decide to fight *for*. In its naïve enthusiasm for the information age, the West has lost control of the narrative, failing to effectively monitor it or even to seriously consider its consequences.

In the late 20th century, communications connectivity in the military enabled a movement toward coordinated conflict, and the United States has assumed that this process will be further refined in a linear direction toward synchronized, swarming attacks. Instead, the evolution has been back toward the role of the individual driven by a common inspiration who now has more information, more motivation to attack, and more powerful conventional weapons with which to do damage. The result is a change in relative advantage at the individual level played out, for example, in the increasing role of suicide attacks in warfare. In today's social and political context, it is not

enough to focus on military organizational and doctrinal changes like networking and swarming. In the long run, the "swarming" that really counts is the wide-scale mobilization of the global public.

Will the United States recognize the significance of connectivity and its implications for conflict? It is hard to say. Much depends on the brilliance of our leadership. Today's Jomini would be an advocate of swarming and netcentric warfare. Today's Clausewitz would analyze the strategic implications for war of the broader social, ideological, and political changes brought about by cyber-mobilization. Successfully harnessing these elements is the key to advantage in future war.

NOTES

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