Government is not built to perceive large truths; only people can perceive great truths. Governments specialize in small and intermediate truths. They have to be instructed by their people in great truths. And the particular truth in which they need instruction today is that new means for meeting the largest problems on earth have to be created.

—Norman Cousins

The shock waves from the collapse of communism are still destroying historic old structures, particularly in Washington. Change agents, long dormant or ignored, are suddenly popular.

Not long after I read "Army Green" (p. 58) and met John Petersen, author of "Will the Military Miss the Market?" (p. 62), I started getting faxes from a fellow in the U.S. Marine Corps Command, Control, Communication, and Intelligence Department. Robert D. Steele wanted to talk about his hopes for restructuring the intelligence mission and redefining national security. And he wanted me to talk to representatives of the intelligence community about transforming themselves into an intelligent community. I greeted his ideas with polite skepticism, to which he responded by sending me some of the things he had written for intelligence journals about "open-source" intelligence. That means making intelligent use of publicly available information, instead of covert and classified sources. There are some wide-eyed radicals out there, all right, and some of them are in the Pentagon!

Who knows? Maybe Steele is a visionary, one of the first to see that the intelligence agencies of the Cold War era might be forced by circumstances to redefine their mission to take into account the dire state of the biosphere. Stranger things have happened lately.

Robert Steele, by his own description, is: "... a former Foreign Service officer and Marine Corps infantry officer, holds two graduate degrees and is a distinguished graduate of the Naval War College. He has spent most of his life in Latin America and Asia, and is of Hispanic heritage. As a Marine Corps civilian he was responsible for standing up the new USMC Intelligence Center in Quantico, where he developed many of his views about the relative utility to his Marine Corps consumers of unclassified versus classified information." —Howard Rheingold

THE ERA OF NATIONAL intelligence, with its unsung heroes and occasional rogue elephants in the war against communism, socialism, and other perceived evils, has come to an end. The Department of Defense and the national intelligence community are striving to restructure, desperately seeking to preserve a semblance of their once massive organizations. Both are redefining their roles and missions in order to remain competitive in the budget battles of the future.

The brain and heart of the national security "firm" have always been command and control, communications, computers, and intelligence, known by the acronym C3I. I propose an alternative paradigm for the intelligence community of the twenty-first century, one which focuses on objectives and outcomes rather than sources and methods. My approach, which integrates ethics, ecology, evolution, and
intelligence (E3I), represents a radical change in perspective on what we should be emphasizing as we adapt to our changed circumstances and prepare for future challenges. Such a paradigm could be described as the “open books” equivalent of the “open skies” concept being applied to arms control: the true value of “intelligence” to our nation lies in its informative value, a value which increases with dissemination. The emphasis within our national intelligence community should be on open sources, free exchanges between government and private-sector analysts, and unclassified production.

We have an opportunity to recast our national intelligence apparatus, and truly put it in the national service — that is, the service of the public — rather than repeat its which must grapple if we are to manage our national security, and the intelligence community, in a responsible fashion.

First, how do we define national security? Do we limit ourselves to “megaprotection” — strategic nuclear and conventional deterrence — while ignoring domestic crime, the loss of economic competitiveness, and the degradation of our external environment and our internal competence (a combination of character and education)? If “national security” is defined as the preservation of our national culture, of our way of life, of the conditions which permit the pursuit of happiness and prosperity, then something is seriously wrong with both our defense structure (including law enforcement), and our “national” intelligence capabilities.

If the nation is defined as the citizenry and its commonweal, rather than as the political apex of the government bureaucracy, then a radical new interpretation of the mission, sources, and methods of the national intelligence apparat is required.

Such an interpretation is intended to make national intelligence more relevant to what should be two top national priorities: the preservation of our culture and a strong ethical foundation for that culture; and the preservation (indeed, the restoration) of our environment. Intelligence can play a very significant part in the recasting of our national government and its relationship with the private sector; intelligence can be teacher, mentor, lifeguard, and coach. National intelligence is an essential element of our national competence, vision, purpose, and cohesion. Only a small fraction of national intelligence should be “classified”: while some classified information is essential to effective diplomacy and executive action, the classification and restriction of knowledge are inherently counterproductive and fraught with the risk of corruption.

**Ethics and Intelligence**

After seventeen years' experience in government, I am convinced that secrets are inherently pathological, undermining reasoned judgment and open discussion. With the exception of relatively limited technical information and
It is now clear to all of us that we are "losing our mind" as a nation.

Some information about plans and intentions, most of what we want to know is readily and cheaply available through the art and science of scholarship and personal interaction. It is one of the great tragedies of our time that scholarship has lost so much ground, has been forced into mediocrity by the pressures of time, overload, and plain human failure. A lack of ethics and credibility in the academic community leads directly to ethical abuse in the industrial plants, illustrate the problem of knowledge, we are destined to become the slaves of the rich, or worse. The purchasing and securing of patents for more fuel-efficient engines, "indestructible" polymeric paints, and other good ideas, solely to protect investments in archaic industrial plants, illustrate the problems that occur when knowledge is treated as property. Individuals end up paying much more for certain products, both because of inefficient production processes and because there is insufficient knowledge of external diseconomies such as pollution and waste.

My proposed paradigm in no way allows for the establishment of a government monopoly on information handling, or government control over the way we manage data and knowledge. On the contrary, this paradigm forces the issue of "who owns knowledge?" (I maintain it is in the public domain) and severely limits the degree to which any organization, in or out of government, can withhold knowledge from the public.

Environment and Intelligence

We are our own worst enemy. Although there is a healthy increase in interest by our national leadership in environmental intelligence, it is directed outward. The data obtained by national intelligence about external environmental conditions and practices must be fully integrable with state and local data on environmental conditions and practices. Only in this way can we reasonably assess the "cost" of a specific product in relation to both inefficient production processes (which consume raw materials in excess, and produce waste and pollution which also "cost" the individual in terms of resources, time, and money required for mechanical disposal), and environmental degradation. Taken in combination, what we are doing to the environment through tacit sanction by our national energy, trade, defense, housing, and education policies is far worse, every day, than a whole series of Chernobyls.

Evolution and Intelligence

The Cold War cost us both resources and perspective. Because of the Cold War, we paid no attention to "lesser" threats and circumstances which, we are now beginning to recognize, represent a cumulative threat to our survivability and prosperity. These are subtle threats, difficult to observe and understand, and the remedies are also subtle, difficult to articulate and implement. As a result, we are now in the same position as a forest ranger who, for being so intent on avoiding the bear, fails to see the encircling fires. Now both the ranger and the bear are about to be burned alive.

Evolution requires recognition of change, flexibility of posture, and fleetness of adaptation. There are only two ways to "force" evolution: through overwhelming force, a role this nation will never accept (we could have turned our forces loose on the Middle East and totally eliminated all weapons in both the Arab coalition and Israel); or through education. This latter approach (the preferred solution for a democracy) requires an educated citizenry. It is now clear to all of us that we are "losing our mind" as a nation; I see national intelligence, and a presidential initiative in conveying to every citizen the nature of the nonmilitary threats to our survival, as the only means of catalyzing our educational system into reform. From education comes evolution — the alternative is deepening depression and ultimate chaos, as the nine regions of North America choose to fend for themselves, and ethnic fragmentation takes its toll on the commonweal.

Where do we start? I see intelligence as part of a continuum, or a larger national construct, which must also include our formal educational process, our informal cultural values, our structured information-technology architecture, our informal social and professional networks for information exchange, our political governance system extending not only internationally but down to the state, local, and citizen level; and, as traditionally defined, as an integral element of the federal bureaucracy.

Again, with a genuflection toward
civil libertarians, I must stress that my "open books" approach to a national knowledge architecture in no way creates a government monopoly or increases government opportunities to impose "necessary illusions"; on the contrary, this approach to knowledge represents a radical departure from the current practice of allowing organizations to conceal and manipulate knowledge against the common interest.

On this basis, one can suggest that Congress and the Executive would be seriously remiss if they were not moving aggressively toward a national open-systems architecture and simple, direct connectivity between public and private educational institutions (e.g., reference librarians and library search systems); corporate marketing and research centers; state and local government information centers; ethnic, religious, and other cultural information "gatekeepers"; and, ultimately, any citizen's computer terminal.

That is the long-term objective. A measure of our situation today is the degree to which the intelligence community is integrated with all of the departments of the federal government (Agriculture, Commerce, Education, Energy, Housing and Urban Development, Interior, Justice, Education), not just the traditional national security departments (State, Defense). The answer is not good. In fact, it is very bad, for even the traditional customers must receive their "intelligence" in bulky compendiums of hard-copy, most of it overclassified, too narrowly focused, and untimely enough to be almost useless when contrasted with the flood of "good enough" open-source material (which does not need a mass of security guards to register and control the data). The nontraditional consumers at the federal level receive little or no intelligence support, and there is no systematic integration, correlation, or comparison of the open-source information they use with the secret data of the intelligence community.

Priority to People
What steps must we take today to achieve an integrated national intelligence system by the year 2001?

The intelligence community spends too much money on extremely expensive technical collection systems, whose flood of digital information cannot be processed by existing or planned methods and personnel. Less than 10 percent of what we collect with these systems is processed, calling into question the return on investment. Our analysts are few in number, and generally inexperienced — few analysts responsible for the study of a particular country, for instance, have ever actually lived in that country, learned the language, or gotten to know the social nature and cultural character of the people about whom they are supposed to be "expert."

Our analysts are also cloistered away from their customers, the policy-makers and the action officers, and have little significant interaction with their academic, industrial, and foreign counterparts — in part because of security restrictions and in part because intelligence management refuses to give them the time to travel, train, and reflect. Analysts are instead chained to their desks, force-fed a dry diet of hard-copy intelligence, deprived of most open-source materials, and expected to "produce" sterile, uncontroversial, "objective" reports.

In my judgment, analysts should spend one-third of their time traveling and training, one-third working directly with consumers (including academic and industrial consumers), and one-third doing analysis that may or may not result in a product. We should nurture private-sector analysts as well as government analysts, perhaps by providing joint training programs, joint travel opportunities, and so on.

Priority to Open Sources
I have written elsewhere about our desperate need for a National Information Agency, an agency untainted and unbiased by association with the traditional intelligence community. Elements of the government now dealing with open sources should be consolidated in such an agency and granted an independent charter to enable them to support not only the intelligence community, and the remainder of the federal government that has been starved for information, but also the private sector and even foreign organizations as appropriate.

Such an agency would not be successful without a direct congressional charter and separate program, and I therefore recommend that Congress follow the precedent it created with Special Operations/Low Intensity Conflict, and create a Consolidated Open Source Program. A significant portion of the funds in this program should be used to build upon the funds appropriated for the National Security Education Act of 1991, and used
to dramatically upgrade educational programs (beginning in elementary school) and industrial information resources devoted to our knowledge of the international physical, political, economic, and cultural environment.

Priority to Open Systems

The issues of privacy and computer security aside, there is much to be said for accelerating the electronic connectivity of the nation; as quickly as possible, every government action officer should be made accessible through Internet-like channels, and every university professor, high-school geography or history teacher, business executive, and student should be part of a national network of readily identifiable individuals with common interests.

The National Research and Education Network initiative (WER #70, p. 12) is a good one, but if we do not provide for the rural roads and comfort stations needed by individuals, this initiative will be of little value to the broad population of literate persons requiring rapid access to multimedia knowledge. I would move the government, including the national security structure, to an unclassified open-systems baseline, and sharply reduce the production and dissemination of classified information while increasing the availability of government-collected and -generated information to the public through electronic channels.

Consumers of intelligence — including the highest policy-making officials whom the multibillion-dollar community considers its most important customers — have often stated that they would rather have an unclassified surrogate that is "good enough to work with" than a highly classified, extremely accurate photograph or report that they cannot share with their counterparts. Analysts should be able to use classified information to inform themselves and validate their views, but they should focus production efforts on the unclassified side, providing information that can go not only to individual government consumers, but also into the public domain through open architecture.

Redefine National Security

A presidential blue-ribbon commission, comprising representatives of various industries, academic sectors, and major departments of government, should be brought together to redefine national security and our national strategic objectives. Some progress has been made in this direction through National Security Review 29; the results, which include significantly increased emphasis on the environment as a "target" for collection and analysis, are nevertheless inadequate, in that we have not truly come to grips with what our changed national strategy should be, nor with what changes should take place in relations between our government and the private sector, between our nation and other nations, and between US nongovernmental organizations and foreign or international nongovernmental organizations.

In brief, as nuclear and conventional forces cease to be the arbiters of power; as many (though not all) nation-states regress to pre-sovereign conditions; and as other forces (economics, environmental changes, and ideocultural movements) come to the fore as key areas of competition and challenge, we need to redefine who our national intelligence consumers are. In economic warfare, our private sector (industry, academia, and the citizenry) provides the "troops," and thus requires the kind of support that intelligence has previously provided to the tactical commander. In ideocultural competition, it is primarily private-sector organizations that are "good enough to work with" than a highly classified, extremely accurate photograph or report that they cannot share with their counterparts. Analysts should be able to use classified information to inform themselves and validate their views, but they should focus production efforts on the unclassified side, providing information that can go not only to individual government consumers, but also into the public domain through open architecture.

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that require an improved understanding of their "competition" and of the demographic playing field upon which they are competing. We no longer need multibillion-dollar investments in systems designed to cover strategic nuclear missiles; instead, we need a multibillion-dollar investment in national knowledge architectures, and global collection, analysis, and dissemination sources and methods that are open, free, and unclassified.

These thoughts are consistent with those of Mitch Kapor and his concept of a National Public Network (WER #74, p. 72). My point is a simple one: national power ultimately stems from the people, even if that power might be abdicated by the people or co-opted by the rich and political. Knowledge is power, and one could say that the people require and will obtain knowledge in one of two ways: by participating in a cooperative venture in which the government facilitates and nurtures information exchange, in much the same way that it facilitated interstate commerce; or through revolution, in which the people, aided by hackers, break open the vaults of knowledge and refuse the government and private-sector organizations their current privileged access to knowledge that merits dissemination and exploitation.

For those concerned about the protection of privacy, with civil-libertarian issues, I would again stress that my concept of national intelligence is focused on collecting predominantly open information about conditions and entities beyond our borders, for the purpose of informing our public and private persons; my concept does not call for the collection of information about people within our borders — in fact, were knowledge about our people necessary (for demographic studies, census reviews, etc.), I would be among the first to call for "electronic aliases" in which it would be illegal to associate a true name with any compiled information about more than one person. By stressing the prominence of unclassified information, we essentially provide our public with an "open-books" approach to knowledge and government management, while significantly increasing the synergy between private-sector data and public-sector data.

Our progress in taming the electronic frontier must be accompanied by a maturing of our national policies and laws; without such changes in the political and legal environments, technical progress will exacerbate the conflict between citizens and organizations, leading ultimately to revolution and electronic anarchy. Early adoption of an alternative paradigm — one that integrates ethics, ecology, and evolution, as fundamental aspects of national intelligence, and puts national intelligence in its place at one end of a continuum of information and education services to the people — could avoid the conflicts inherent in our current chaotic electronic environment, while accelerating our ability to recognize and adapt to changed circumstances.

As civilization has evolved, and the sources of power have changed from tribal mass to political force to financial leverage, each era has faced the challenge of adapting to change. We have reached a turning point, one where the ultimate source of power is finally recognized — knowledge. I conclude with an observation from Will and Ariel Durant, who, in their lifetime of studying civilizations, came to the following realization:

**The only real revolution is in the enlightenment of the mind and the improvement of character, the only real emancipation is individual, and the only real revolutionists are philosophers and saints.**

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7. I hold the view that government cannot abdicate its role in nurturing our culture and its educational foundation — that statecraft is indeed soulcraft; and that government expenditures are less important with respect to what they actually purchase in services, and more important in terms of their influence on the private sector: government expenditures should establish a foundation that encourages private sector outlays in positive ethical and environmental directions. Among the books that have influenced my thinking are those of George Will, *Statecraft as Soulcraft: What Government Does* (Simon & Schuster, 1983); William Lind, *Cultural Conservatism: Toward a New National Agenda* (Institute for Cultural Conservatism, 1987); Herbert Stein, *Governing the $5 Trillion Economy* (Oxford, 1989); Albert L. Malabre, Jr., *Within Our Means: The Struggle for Economic Recovery After a Reckless Decade* (Random House, 1991); and David M. Abshire, *Preventing World War III: A Realistic Grand Strategy* (Harper & Row, 1988). The latter book, despite its title, is a superb description of how the president should take charge of long-term policy planning across all dimensions of our domestic and foreign environment.
