

Terrorism, Civil Liberties, and Preventive Approaches to Technology: The Difficult Choices Western Societies Face in the War on Terrorism

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This article explores public policy alternatives to the current war on terrorism. Western society's vulnerability to terrorism has been dealt with primarily by expanding the law enforcement and surveillance authority of governments at the expense of the freedoms and civil liberties of the public. This approach threatens to undermine the prerequisites to meaningful democratic institutions. An alternative public policy might target high-risk technologies (civilian airlines, nuclear reactors, etc.) as the source of vulnerability to terrorism, thereby protecting civil liberties by reducing or eliminating the use of such technologies.

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In the aftermath of the attacks on the World Trade Center and the Pentagon, President George W. Bush and a number of prominent members of his Administration repeatedly told the American public that they must not change their way of life; otherwise, the terrorists will have achieved what they set out to do. Today things look very different. Most Americans appear to have accepted that the war on terrorism will produce a number of domestic casualties, most notably the liberties and rights most have learned to take for granted. Not only has the surveillance authority of U.S. law enforcement agencies been vastly expanded, but even such basic guarantees as habeas corpus have been suspended in the war on terrorism. Other Western democracies are being pressured to follow suit in what has become an all-out assault on civil liberties. Osama bin Laden and his al Qaeda network of terrorists have

demonstrated the West's vulnerability. This vulnerability has been interpreted as largely the result of the freedoms enjoyed in the West, which al Qaeda took advantage of to launch the most deadly attack in American history. To protect itself, the United States and its allies must compromise these freedoms by allowing governments to track and capture those likely to carry out acts of terror before they get a chance to act on their intentions. The citizens of Western democracies seem to believe that they do not have a choice; if they want to be safe from terrorism, they must be willing to compromise their liberties.

There might be an entirely different way to read the events of September 11. Instead of jumping on freedom and liberty as the source of this vulnerability, it seems equally plausible to argue that the technologies Western societies have chosen to support their way of life are the culprit. More specifically, Western societies have chosen to make use of a plethora of high-risk technologies that can be potential targets for terrorist groups (nuclear reactors, chemical plants, etc.) or that can be used as weapons by them (civilian airliners, military technologies, etc.). A better cure for this vulnerability would be to drastically reduce or eliminate the use of such technologies to protect basic freedoms rather than to sacrifice basic freedoms to protect technologies. After all, democracy, human rights, and freedom are taken by most to be the defining aspect of Western civilization, which, above all, are to be protected. Most democratic theorists agree that democracy requires the protection of basic freedoms (like speech and association) and liberties to make the exercise of the franchise meaningful. Citizens must be free

to form and express their opinions without fear of government surveillance and possible sanction. The response of the U.S. government and many of its allies to the attacks of September 11 crucially undermines this basic precondition for the meaningful exercise of democracy, thus raising the question: How should a democratic society respond to such attacks?

It was the commandeering of a high-risk technology (civilian airliners) that allowed the terrorists to unleash so devastating an attack. This attack also immediately drew attention to many other high-risk technologies that could be targeted. Nuclear power plants, chemical plants, toxic waste dumps, oil tankers, and so forth are all technologies that could be targeted by terrorists with devastating effect. Reducing or eliminating the use of such technologies would seem a logical response to the problem. Reducing the huge quantities of military technologies being traded on international arms markets would be a good start, but we would need to go much further. It may seem ridiculous to suggest the elimination of civilian air travel as a reasonable public policy response to September 11, but to many members of the public, this was the natural reaction. The airline industry went into a tailspin (from which it has yet to fully recover) as a result of the refusal by many to travel by air. Many businesses opted for teleconferences in preference to face-to-face meetings, and consumers vacationed close to home rather than flying to Florida. Travelers have only slowly been lured back by increased security measures, the effectiveness of which is still in doubt. Despite this spontaneous reaction on the part of the public and the attention other high-risk technologies briefly received in the immediate aftermath of the attacks, a policy that might reduce such risks has yet to be articulated anywhere in the Western world. Insofar as these risks have been addressed at all, it has been done in the typical end-of-pipe manner with which Western societies have generally dealt with technological problems. That is to say that, instead of looking at the root of the problem (e.g., pollution caused by the internal combustion engine) and redesigning the technology to avoid the problem (converting to solar-produced hydrogen as fuel), an additional technology is added to alleviate the symptom (the catalytic converter). Because our transportation technologies subject us to undue risk, instead of redesigning the technology to avoid that risk, additional technologies (e.g., magnetic resonance imagers to examine luggage) are used in the hope of eliminating the symptom. End-of-pipe solutions are harmful enough when it comes to polluting

technologies, as the substantial literature on industrial ecology demonstrates. When they are applied to the problem of high-risk technology, they undermine the very values liberal democratic societies are based on.

The idea that high-risk technologies are an enemy of freedom will not come as a surprise to those that have worked with them. To make a high-risk technology such as a nuclear reactor safe requires that it be run like a military operation in which workers are first and foremost subjected to a security check in which potential workers must sacrifice their right to privacy. Then it must be run like what, in the field of risk analysis, is called a total institution, the model for which is a military submarine. In such an institution, members are separated from outside influences (family, politics, culture, etc.) that might detract from their functions and continually drilled to make them work more like reliable machines than human beings (Perrow, 1984). The more a society makes use of such technologies, the more it must therefore also resemble a total institution. So far Western societies have accepted these infringements on civil liberties dictated by high-risk technologies, because they only seemed to affect people who actually worked with these technologies. In the aftermath of September 11, it has become clear that no one can be secure from such intrusions as long as these technologies are a part of our society. Increasing the safety of high-risk technologies through end-of-pipe approaches requires, on one hand, additional technologies such as metal detectors and screening devices and, on the other, invasions of privacy and increased government surveillance. The latter two are particularly problematic from the point of view of democratic theory. To screen out potential saboteurs among the work force, their past political affiliations become relevant. This becomes a serious constraint on the freedom of association and speech seen by most democratic theorists as a crucial, defining aspect of an open, democratic society. In the case of air travel, not only the past political affiliations of workers but also those of travelers become relevant. Because such intelligence gathering is beyond the capacity of individual employers, it becomes the role of government. Governments, thus, must draw up lists of groups that have the potential to resort to terrorist methods in support of their aims (clearly they cannot wait for that potential to become actual). Although the tools being handed to law enforcement agencies in the war on terror are currently primarily being used against members of the Islamic faith, it would be extremely naïve to think that they will not be used against other groups. (This is not

meant to imply that their use against anyone of the Islamic faith is justified.) There is no generally agreed-upon definition of terrorism. Thus, the same tools could be used against oil-patch bombers in Alberta, tree-splitters in British Columbia, anti-globalization protesters, or any other group that uses methods that go beyond what is legally sanctioned to support their cause. The emphasis on preemption would also seem to open the door to surveillance of groups merely suspected of having members sympathetic to the use of terrorist methods. The implications for democracy are too obvious to require extensive elaboration: government infiltration of political groups, potential blacklisting of members of such groups, and the resulting fear and reluctance of citizens to join in political activity—in other words, the erosion of the prerequisites for meaningful democratic institutions.

If end-of-pipe solutions to the risks imposed by our technologies are unacceptable, the question becomes: Are there preventive alternatives? In the field of engineering, preventive approaches are distinguished from end-of-pipe approaches to a problem in that they go back to the root cause of the problem (in this case, risk) and ask if this technology could be redesigned so as to avoid creating the problem to begin with (Vanderburg, 2000). To phrase it differently, are there alternative technologies that perform the desired service while avoiding the risk, rather than taking the technology for granted and dealing with the risk?

Although the elimination of civilian air travel may be far fetched, reducing its importance to the travel needs of the Western countries by the establishment of better rail systems and the expansion of other alternatives is not only plausible but highly sensible for environmental as well as security reasons. Such a transition would not eliminate risks but significantly reduce them. To the extent that the use of this high-risk technology is diminished, the vulnerability to terrorism is also reduced. What is true of civilian airlines is true of all high-risk technologies. All of them are potential targets for sabotage, and to the extent that their use can be reduced, society becomes more secure.

Nuclear power plants may seem to be an easy means of meeting growing energy needs without adding to the greenhouse effect, but they have a downside that was clearly demonstrated in Chernobyl. Although such an accident may be less likely in the West, nuclear reactors make good targets for saboteurs. Are they a necessary component of the American way of life? Many had opposed nuclear power long before September 11 and continue to do so because of the risks

involved and because the waste disposal problem has yet to be solved. Furthermore, most studies on the subject have found that, in the United States (as well as in Canada), energy can be generated negatively (by investing in efficiency) at half the cost of building more generating capacity (Lovins, 1992). By reducing the consumption of power and expanding the use of low-risk alternatives like wind and solar, not only security but also the environment are significantly improved.

The danger of supertankers has repeatedly been demonstrated even in the absence of terrorists. They may represent a somewhat more difficult problem, but aside from the design of safer double-hulled tankers (which would still be vulnerable to terrorist sabotage), the solution to this risk would seem to be to rid Western societies of their dependence on oil. This would have the additional benefit of allowing the West to become less meddlesome in Middle Eastern affairs and thus reduce the likelihood that future terrorists would single Western societies out as a target. Lamentably, reducing the use of nuclear power and foreign oil requires that Western societies reexamine their commitment to many of their other technologies, like driving big, gas-guzzling sports utility vehicles (SUVs). This is something that the U.S. government appears to think Americans are unwilling to do. George Bush, Sr., in the negotiations leading up to the Rio Summit, repeatedly stated that “the American way of life is not up for negotiation.” This implied that Americans are not willing to give up their house in the suburbs, their SUVs, or their air conditioners, even if hanging on to them risks their grandchildren’s future.

The current Bush Administration seems to have based its response to September 11 on similar assumptions. Americans are unwilling to give up their lifestyle or the technologies on which it is based even if this requires undermining their basic freedoms. If this assumption is true of the American public or Western societies generally, it is a sad indictment of Western culture. It signifies that Western societies have indeed abandoned all spiritual and moral values as the basis of their culture in favor of crass consumerism; that they have been enslaved by their creature comforts to such an extent that they are willing to sacrifice everything else to maintain them, the way a junkie will sacrifice everything for the next fix; and that they have become entirely one dimensional, as Herbert Marcuse (1964) once put it.

When Bush told Americans that they should not change their way of life lest they hand al Qaeda a victory, he clearly did not see civil liberties as a defining

aspect of this American way of life. He was instead encouraging Americans to continue to spend money to avoid a recession. Yet this is odd, because the public was also told repeatedly that the Islamic fundamentalists hate the West for its freedoms. Insofar as the West is hated or resented abroad, it is more likely the result of the crass consumerism that appears to dominate Western culture and the interventionist foreign policies the United States and its allies pursue to maintain an economy based on this consumerism (a truly preventive approach to terrorism as opposed to risk might start here). The fact that the public in Western societies seems willing to sacrifice its hard-won freedoms, not to mention the environment, to continue business as usual reinforces that impression. It demonstrates that Western society has defined itself not through a set of values or morals such as justice, freedom, or equality but in terms of its consumption patterns and the technologies required to maintain them.

James Madison (as cited in Lowi, Ginsburg, & Shepsle, 2002), one of the framers of the American Constitution, once warned against the possibility of a political community being torn apart by "the violence of faction," by which he meant any group of people "united by a common interest or passion" (p. A35). Having lived in a time when there were no high-risk technologies, he considered factions harmless unless they represented the majority and were thus able to threaten the well-being of the community as a whole. In the context of the high-tech world we live in, this must be revised. Any faction, no matter how small, can threaten the well-being and security of the community if it is willing to resort to terrorism. To combat the threat of faction, Madison suggested only two possibilities: The first was to remove its causes and, the second, to control its effects. He, in turn, suggested two means of eliminating the causes of faction: first, to prevent factions from becoming organized by eliminating the liberty, that is to factions "what air is to fire," and second,

by giving to every citizen the same opinions, the same passions and the same interests. . . . It could never be more truly said than of the first remedy that it was worse than the disease. . . . It could not be a less folly to abolish liberty, which is essential to political life, because it nourishes faction than it would be to wish the annihilation of air, which is essential to animal life, because it imparts to fire its destructive agency. The second

expedient is as impracticable as the first would be unwise. (Madison, as cited in Lowi, Ginsburg, & Shepsle, 2002, pp. A35-A36)

Thus, Madison reluctantly concluded that factions were inevitable, and all one could do was to control their effects. Although the effects of majority factions could be controlled through the separation of powers, checks and balances, and so forth, controlling the effects of minority factions willing to resort to terrorism is more difficult. Nonetheless, converting our democratic states into 1984-style totalitarian regimes is worse than the disease and, furthermore, is unlikely to cure the disease. The only alternative is to control the effects of terrorist factions by eliminating the technologies terrorists can use as weapons. This approach will never make Western societies entirely safe from terrorism, but neither, I would suggest, will the end-of-pipe policies currently being pursued in the war against terror. Controlling the effects of terrorism by eliminating or reducing the use of high-risk technologies will require a major overhaul of most Western societies. It will involve identifying the technologies that pose a threat and, first and foremost, looking for safer alternatives. In many cases, safer alternatives are available, but where they are not, Western societies will have to figure out how to get by without these technologies. It is certainly possible that some sacrifices of comfort and convenience will be required, but I, for one, would rather sacrifice comfort and convenience than basic freedoms.

References

- Lovins, A. B. (1992). The Negawatt revolution: New developments in energy efficiency. In B. Abeles, A. J. Jacobson, & P. Sheng (Eds.), *Energy and the environment* (pp. 2-34). New Brunswick, NJ: World Scientific.
- Madison, J., Hamilton, A., & Jay, J. (2002). The Federalist papers (based on the original McLean edition of 1778), No. 10. In T. J. Lowi, B. Ginsburg, & K. Shepsle (Eds.), *American government: Power and purpose* (7th ed., pp. A35-A36). New York: Norton.
- Marcuse, H. (1964). *One dimensional man: Studies in the ideology of advanced industrial society*. Boston: Beacon Press.
- Perrow, C. (1984). *Normal accidents: Living with high-risk technologies*. New York: Basic Books.
- Vanderburg, W. H. (2000). *The labyrinth of technology*. Toronto, Canada: University of Toronto Press.

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