

The Technologies Of Peace and War

The future of PeaceNet and other decentralized technologies

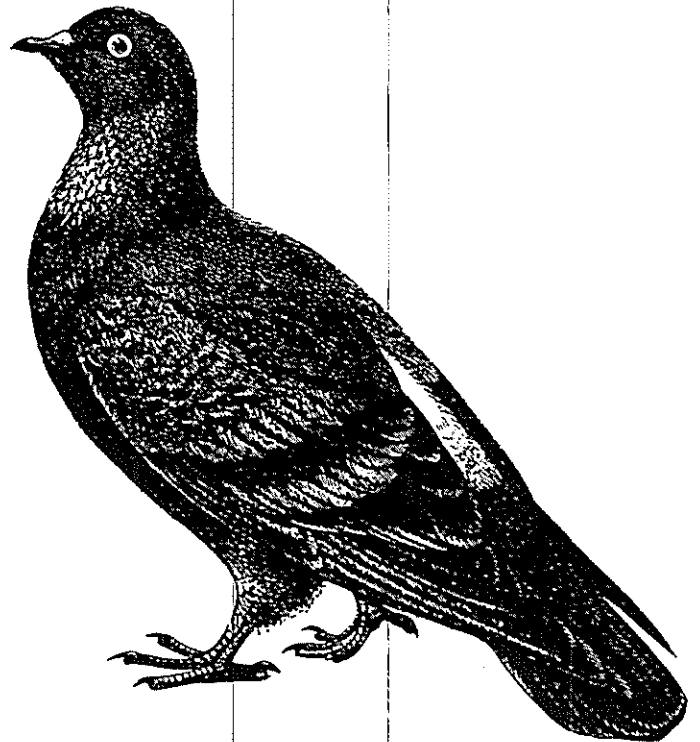
The author presented this talk at the 1991 BCS Computers and Social Change Conference, held last summer in Boston.

I know that I'm speaking to one of the most sophisticated audiences in the world. Not only are you some of the most knowledgeable in computers and high technology, but by being here tonight, many of you must certainly be among that honorable 20 percent of the U.S. population who did not go along with the government-instigated hysteria and media censorship of the Gulf War.

So, I'm not going to give you an introduction into computer communications, nor am I even going to repeat the fine commentaries of the media critics and foreign policy analysts, many of them from Boston and Cambridge.

Instead, what I'd like to do is to put our struggle for peace and human rights into millennial perspective. I'm going to draw on the unknown history of communication in peace and war, placing PeaceNet in historical perspective. Then I'll give you a diagrammatic overview of our system, and, finally, I'll conclude with some comments on the challenges that we face collectively in the years ahead.

For thousands of years, people had little need for long-distance communication because they lived very close to one another. The medieval peasant's entire life was spent within a radius of no more than 25 miles from his or her place of birth. Even at the beginning of our century, the average person still lived in the countryside and knew of the world only through travelers' tales.



Most communication moved at agonizingly slow speeds. In the 1830s, a letter from Europe to India might take five to eight months by sailing ship around the Cape—in each direction! It took as long as two years to send a letter and receive a reply. But people came up with ingenious devices to overcome these vast distances. In 1825, the so-called “talking cannons” along the Erie Canal and the Hudson River set a record of speed of communication. By sequentially firing hundreds of cannons, they carried a simple, predetermined message (that the first boat had entered the new waterway) 584 kilometers from Buffalo to New York City in the breakneck speed of 80 minutes!

This painfully slow communication had a dramatic effect on the course of war and peace.

If transatlantic communication had been faster, the War of 1812 need not have happened—and it would have ended sooner. The cause of that conflict was the British so-called “Order in Council” (1807), which forced all U.S. trade with Europe to pass through British ports. Communication at the time between Britain and America was measured in weeks, and Congress declared war on Britain not knowing that Parliament had repealed the Order two days before. Even worse, the lack of communication lengthened the war and caused thousands of needless casualties. News of the peace treaty took weeks to arrive, and the British attack on New Orleans went ahead as planned, even though the war had officially ended.

America’s two most devastating wars were due in part to communications breakdowns.

Think back to the state of electronic technology in 1941. At the time, U.S. armed forces in Hawaii had just received those remarkable radar devices that could detect ships or airplanes at sea. Two Army privates with no radar training were about to go off duty at 7:00 a.m. on December 7, 1941, when they noticed a huge blip on the screen 200 kilometers north of Oahu. Thinking that these radar images were a huge flight of enemy planes, they tried to contact headquarters by radio. But no one answered, and minutes later they finally got through by ordinary telephone. The commanding officer, thinking the blip was a group of American bombers arriving from the mainland, told them “not to worry about it.” The rest is history.

It can be said that even the Vietnam War started due to a communications breakdown. Remember the Gulf of Tonkin incident? On August 2, 1964, the U.S. destroyer Maddox was cruising a zigzag course off the coast of North Vietnam. Aboard the Maddox was the most modern communications equipment and electronics available. That evening, violent thunderstorms

rocked the Gulf of Tonkin, and the Maddox’s equipment was functioning erratically. For the second time in two days, the captain of the Maddox received messages that he interpreted to be North Vietnamese ships on the attack. For the second time, he called in American jets and unloaded decoys in all directions to detonate incoming torpedoes. The ship’s sonars detected 22 incoming torpedoes, none of which struck its target.

None of the sailors saw any Vietnamese ships. Neither had the fighter pilots. Subsequent research has indicated with almost total certainty that the second attack in the Gulf of Tonkin never happened.

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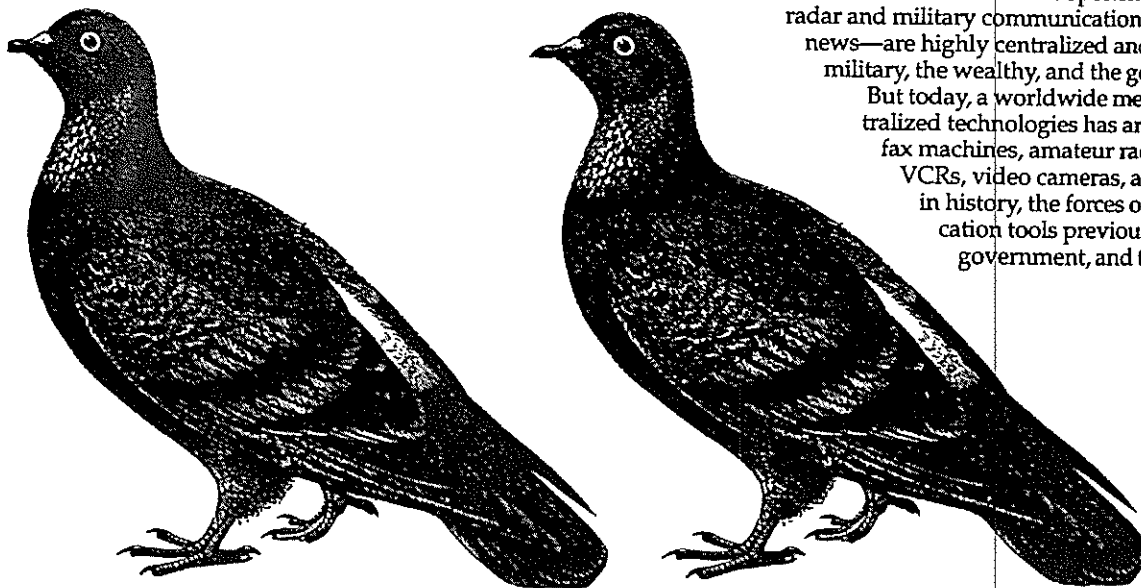
Yet President Johnson, seeking a pretext, went on television to say, “Repeated acts of violence . . . must be met . . . with positive reply.” He immediately went to Congress to report that U.S. destroyers had again been attacked in the Gulf of Tonkin. Johnson seized upon a fuzzy set of circumstances to fulfill a contingency plan. Under pressure from the President, on August 10, 1964, Congress passed the infamous “Gulf of Tonkin Resolution,” giving the President power to commit American forces in Vietnam without Congressional approval—thanks to a breakdown in communications technology.

I needn’t repeat them, but I am sure you are all familiar with the powerful media aspects of the recent Gulf War, particularly the deliberate news management by the Pentagon, the live pictures of the Scud attacks on Jerusalem, the Nintendo-style pictures of Cruise missiles passing slowly down streets and directly into the air vents of “command centers” filled with hundreds of innocent civilians.

Today, of course, the media landscape has been totally transformed. We are now able to watch war live from the front. But something else has happened, too, something that can have an impressive effect on the course of war and peace.

All the channels we have spoken about to this point—from radar and military communications to satellites and television news—are highly centralized and rest in the hands of the military, the wealthy, and the governing elite.

But today, a worldwide metanetwork of highly decentralized technologies has arisen—computer networks, fax machines, amateur radio, packet data satellites, VCRs, video cameras, and the like. For the first time in history, the forces of peace have the communication tools previously reserved for the military, government, and transnational corporations.



Advocacy groups such as Amnesty International, the rainforest protection movement, and the Middle East peace movement are now beginning to have an impact on the course of peace and war.

The first large-scale impact of these decentralizing technologies on international politics happened less than two years ago. When the Chinese government massacred its citizens near Tiananmen Square on June 4, 1989, Chinese students transmitted the most detailed, vivid reports instantly by fax, telephone, and computer networks to activists throughout the world. They organized protest meetings, fundraising, speaking tours, and political appeals. Their impact was so immense and immediate that the Chinese government tried to cut telephone links to the exterior and started to monitor the Usenet computer conferences where much of this was taking place.

Another historical example is the Gulf War, where computer networks such as PeaceNet exploded with activity. While mainstream channels of communication were blocked by Pentagon censorship, PeaceNet was carrying accurate reports of the effects of the Gulf War on the Third World, Israel, and the Arab countries and the worldwide anti-war movement. For a movement caught off-guard, amazingly smooth coordination took place rapidly across the country and the world. Competing groups agreed on common platforms, set synchronized action dates, and planned large-scale events across vast distances. Computerists seized the technology and made it work. PeaceNet truly proved itself in the cauldron of struggle.

Let me describe our network in a bit more detail.

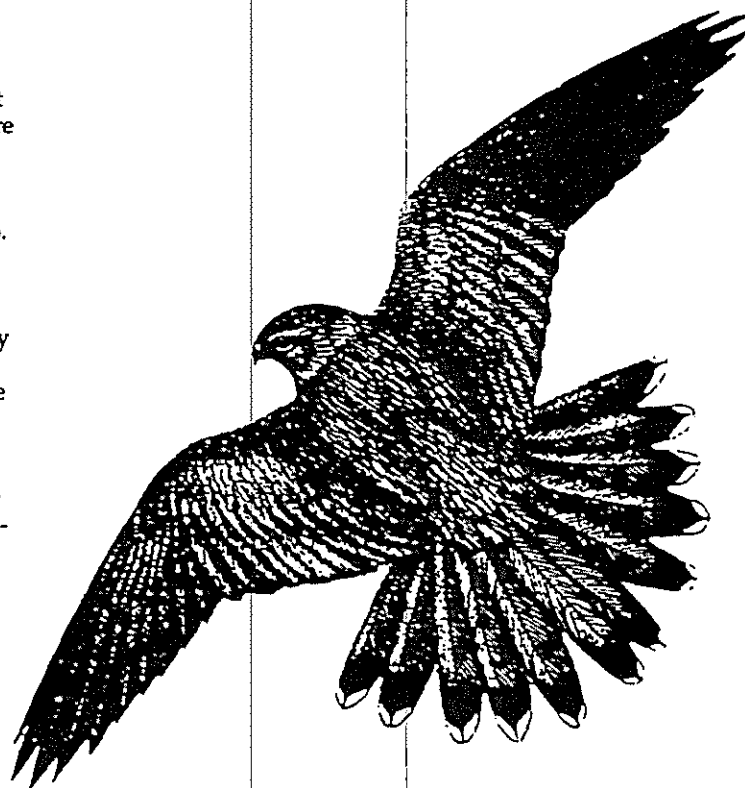
At the hub of this system is the San Francisco-based Institute for Global Communications (IGC), home of PeaceNet, the world's only computer communications system dedicated to helping the peace and human rights communities to cooperate more effectively and efficiently.

PeaceNet and its sister network EcoNet are connected to partner networks in Australia, Brazil, Canada, Germany, Nicaragua, Soviet Union, Sweden, and the United Kingdom, and to affiliated networks in Bolivia, Uruguay, Costa Rica, Kenya, and Zimbabwe. PeaceNet is linked by electronic "gateways" to 60 other commercial and noncommercial systems, including the worldwide Internet research network. So there is virtually no computer user in the world who cannot gain access to PeaceNet.

PeaceNet and its partner networks have built a truly global network dedicated to the free and balanced flow of information. The draft APC Constitution mandates its partners to serve people working toward "peace, the prevention of warfare, elimination of militarism, protection of the environment, furtherance of human rights and the rights of peoples, achievement of social and economic justice, elimination of poverty, promotion of sustainable and equitable development, advancement of participatory democracy, and nonviolent conflict resolution."

Simply put, electronic mail (or "e-mail") connects two correspondents through a computer and a modem to a "host" computer. One user, let's say a peace researcher in Finland, uses her computer to dial into a local data network (analogous to the telephone network but for data traffic instead of voice). She either types in a message or "uploads" a prepared text, which is then sent to the PeaceNet host computer in California. Later, her correspondent, a university peace studies professor in Hawaii, connects in the same way to the host and "downloads" the message. This miraculous feat, near instantaneous communication across half the globe, costs each user only the price of a local phone call plus a small transmission charge.

Unlike systems used by the large commercial services, the APC Networks are highly decentralized and preserve local autonomy. One microcomputer serves a limited geographical re-



gion and is in turn connected with other "nodes." The local node collects the international mail, bundles and compresses it, then sends it to the appropriate foreign messaging system for distribution using a special high-speed connection.

In addition to e-mail, the APC Networks also have more than 600 electronic "conferences," basically a collective mailbox open to all users, or to a specific group of users. It is here that people can publicize events, prepare joint proposals, disseminate vital information, and find the latest data on everything from the arms race to Zimbabwe. In these conferences, PeaceNet carries a number of important alternative news sources, including Inter Press Service (the Third World's largest news agency), Environmental News Service, Amnesty International alerts, Greenpeace News, and the United Nations news service.

What do people actually do online with their computers and modems? Here are a few real-life examples taken from actual online messages:

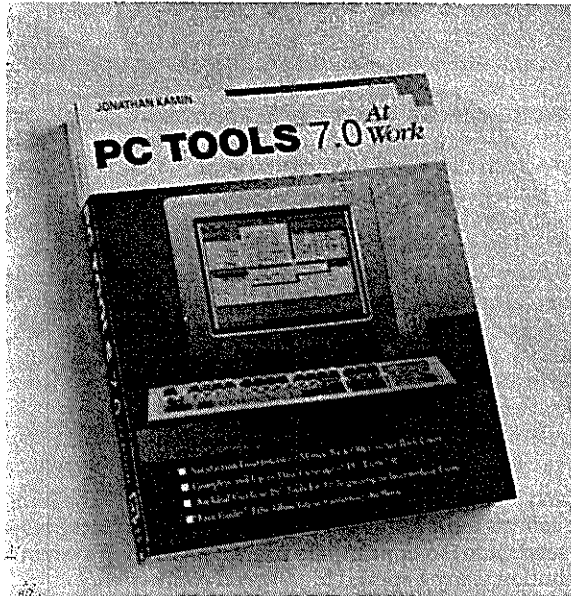
- "Back in the olden days, we had to ride 24 hours on the bus every two to three months to San Antonio, where another Mujer a Mujer member lives, to make marathon phone calls. Now we're so excited about the power and possibilities of electronic communication." Elaine Burns, Mujer a Mujer, Mexico City.

- "We're a community-based health project located in the hills of northern Nicaragua. Peacenet has enabled us to maintain contact with our people there even when there was not any reliable mail service." Cynthia Kruger, Bocay, Nicaragua.

- "PeaceNet helps us link elementary and secondary schools so kids can have the opportunity to make a meaningful contribution to the health and welfare of the planet." Peter Copen, Yorktown Heights, NY.

- "The Gulf War proved that PeaceNet is invaluable in gathering news deliberately filtered out by the establishment press." Larry Bensky, National Affairs Correspondent, Pacifica Radio.

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• "I use my solar-powered laptop out here in the Australian bush to publish *The Bush Telegraph*. The network has allowed me to inform myself to a degree that would be impossible through the establishment media." Mike Holland, New South Wales, Australia.

• "We are the Center for Information, Documentation, and Research Support of the Jesuit-run Central American University of El Salvador (UCA). Our weekly bulletin of news analysis, *Proceso*, is sent to organizations and individuals on PeaceNet." Christina Courtright, San Salvador, El Salvador.

Let me conclude with some remarks about the challenges we face in the 1990s. A handful of immense corporations dominate the world's mass media. If present trends continue, by the turn of the century, as former University of California journalism

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dean Ben Bagdikian has predicted, "five to ten corporate giants will control most of the world's important newspapers, magazines, books, broadcast stations, movies, recordings, and videocassettes." These "lords of the global village" exert a homogenizing influence over ideas, culture, and commerce.

We need what Dean George Gerbner of the Annenberg School of Communication has termed a Cultural Environmental Movement. Just as Earth's physical environment has its moving plates and colliding continents, Earth's cultural environment is dynamically active, with ideas moving about, crashing into one another, and causing social earthquakes and revolutionary eruptions. And just as the physical environment is threatened with toxic wastes and degradation, so, too, the cultural environment is threatened by monopolistic control and market-driven commercialism—indeed, even by toxics such as the jingoistic militarism we have seen in our own society.

We need a movement to protect the cultural environment, just as we need to protect the physical environment. It is the decentralizing media that provide us with the most hope—those channels of communication that arise from and reach into grassroots, that provide truly alternative information from the monopolies of knowledge; those that empower and enfranchise the advocates of peace and the protectors of the environment; those that are low-cost and reliable; those that help people to cooperate on a global scale. This is the vision of PeaceNet and its partner networks, and I'm grateful that by being here tonight, you are supporting PeaceNet, and you, too, are contributing to making this vision a reality.

For more information in the United States, contact PeaceNet, 18 De Boom Street, San Francisco, CA 94107, (415) 442-0220, Fax: 415-546-1794, Telex: 154205417. PeaceNet's computer addresses are: Internet: peacenet@igc.org; Bitnet: cdp!peacenet; labrea@stanford; UUCP: uunet!pyramid!cdp!peacenet

Howard H. Frederick, PhD, is director of PeaceNet. Copyright 1991 by Howard H. Frederick.