

WORLD FEDERATION OF SCIENTISTS

Erice Declaration on Principles for Cyber Stability and Cyber Peace

It is an unprecedented triumph of science that mankind, through the use of modern information and communication technologies (ICTs), now has the means to expand economic resources for all countries, to enhance the intellectual capabilities of their citizens, and to develop their culture and trust in other societies. The Internet, like science itself, is fundamentally transnational and ubiquitous in character. The Internet, and its attendant information tools, is the indispensable channel of scientific discourse nationally and internationally, offering to all the benefits of open science, without secrecy and without borders.

In the twenty-first century, the Internet and other interconnected networks (cyberspace) have become critical to human well-being and the political independence and territorial integrity of nation states.

The danger is that the world has become so interconnected and the risks and threats so sophisticated and pervasive that they have grown exponentially in comparison to the ability to counter them. There is now the capability for nation states or rogue actors to significantly disrupt life and society in all countries; cybercrime and its offspring, cyber conflict, threatens peaceful existence of mankind and the beneficial use of cyberspace.

Information and communication systems and networks underpin national and economic security for all countries and serve as a central nervous system for response capabilities, business and government operations, human services, public health, and individual enrichment.

Information infrastructures and systems are becoming crucial to human health, safety, and well-being, especially for the elderly, the disabled, the infirm, and the very young. Significant disruptions of cyberspace can cause unnecessary suffering and destruction.

ICTs support tenets of human rights guaranteed under international law, including the *Universal Declaration of Human Rights* (Articles 12, 18 and 19) and the *International Covenant on Civil and Political Rights* (Articles 17, 18, and 19). Disruption of cyberspace (a) impairs the individual's right to privacy, family, home, and correspondence without interference or attacks, (b) interferes with the right to freedom of thought, conscience, and religion, (c) abridges the right to freedom of opinion and expression, and (d) limits the right to receive and impart information and ideas to any media and regardless of frontiers.

ICTs can be a means for beneficence or harm, hence also as an instrument for peace or for conflict. Reaping the benefits of the information age requires that information networks and systems be stable, reliable, available, and trusted. Assuring the integrity, security, and stability of cyberspace in general requires concerted international action.

THEREFORE, we advocate the following principles for achieving and maintaining cyber stability and peace:

1. All governments should recognize that international law guarantees individuals the free flow of information and ideas; these guarantees also apply to cyberspace. Restrictions should only be as necessary and accompanied by a process for legal review.
2. All countries should work together to develop a common code of cyber conduct and harmonized global legal framework, including procedural provisions regarding investigative assistance and cooperation that respects privacy and human rights. All governments, service providers, and users should support international law enforcement efforts against cyber criminals.
3. All users, service providers, and governments should work to ensure that cyberspace is not used in any way that would result in the exploitation of users, particularly the young and defenseless, through violence or degradation.
4. Governments, organizations, and the private sector, including individuals, should implement and maintain comprehensive security programs based upon internationally accepted best practices and standards and utilizing privacy and security technologies.
5. Software and hardware developers should strive to develop secure technologies that promote resiliency and resist vulnerabilities.
6. Governments should actively participate in United Nations' efforts to promote global cyber security and cyber peace and to avoid the use of cyberspace for conflict.

The Erice Declaration on Principles for Cyber Stability and Cyber Peace was drafted by the Permanent Monitoring Panel on Information Security of the World Federation of Scientists (WFS), Geneva, and adopted by the Plenary of the WFS on the occasion of the 42nd Session of the International Seminars on Planetary Emergencies in Erice (Sicily) on August 20, 2009