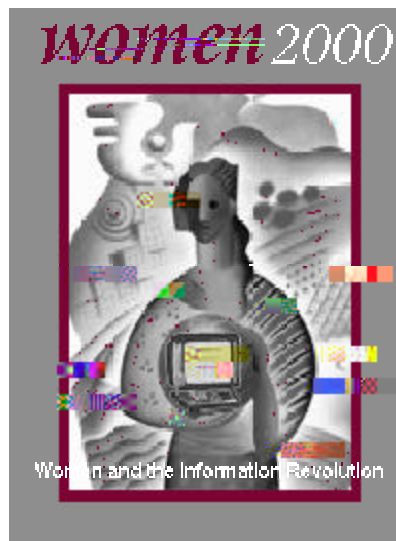


Women2000

Women and the Information Revolution

**Published to Promote the Goals of the Beijing Declaration and the
Platform for Action
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Department of Economic and Social Affairs

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Introduction

At the United Nations Fourth World Conference on Women (FWCW), which was held at Beijing, China, in September 1996, one of the most striking features was the use of the information superhighway to spread the word about the Conference and the NGO Forum well beyond the boundaries of previous global conferences. In addition to the close to 40,000 participants, most of whom were women who had travelled to Beijing from all the corners of the globe, thousands of women and men joined the superhighway daily to follow the Conference and Forum using computers and telephone lines.

In the two years preceding the events, women and men from all regions, cultures and walks of life had reflected together on-line, seeking consensus on fundamental issues related to gender and women's human rights. New computer networking technologies (CNTs) made this possible by broadening participation for diverse groups and enabling women in particular to participate and build new partnerships.

The experience gained by the United Nations around the FWCW helped to reveal the power of the Internet as a tool for use by women for information dissemination and communication. The UN's Division for the Advancement of Women (DAW), in its role as Secretariat for the Beijing Conference, worked to stimulate the use of computer technology for the Conference and continues to see a role in facilitating its use in the follow-up to Beijing. In order to disseminate information on the Conference, DAW established a World Wide Web (WWW) site and, in collaboration with the United Nations Development Programme (UNDP), a local Internet server was set up at the official Conference venue.

User statistics collected during the FWCW demonstrated the potential demand for such a tool: a total of 158,722 requests for files under the FWCW Internet space were received from 68 different countries. Equally impressive was the success of Internet activities at the NGO Forum Beijing'95. As a result, DAW, with partners UNIFEM and INSTRAW, is developing a joint initiative called [WomenWatch](#). This project, along with the recent Workshop held in this connection are described at the end of this issue of Women 2000.

Fourth World Conference on Women and NGO Forum Join the Information Superhighway	
NGO Forum	
E-mail messages	52,000
Visits to the WWW	135,000
Fourth World Conference on Women	

The experience with electronic communication networking at Beijing reflects the explosion in the field of communications witnessed in the past 20 years, including advances in computer communication technologies which have expanded global access to information at a remarkable rate. This revolution in information technology has created new opportunities as well as challenges. Just as advances in radio and television have seemed to transform our world into a "global village", CNTs have introduced a concept that changes the nature of space. They have created a sphere, or cyberspace, where multiple and diverse opportunities for social interaction can evolve from the local to the planetary level. They have introduced an electronic "virtual community" where millions can come to share information and ideas as well as organize and mobilize for action on an unprecedented scale. This interaction can occur at a speed previously unheard of.

"The logic of networks is essentially a logic of spaces. Cyberspace itself is comprised of a vast conglomeration of data and information flow within which it is possible to define specific spaces where common interest groups gather to exchange information or coordinate activities." (Sally Burch, President, Agencia Latinoamericana de Informacion (ALAI))

During the preparations for Beijing, exchanges took place among women's organizations using several on-line instruments established by groups such as the Association for Progressive Communications (APC) and UNDP -- electronic conferences or bulletin boards on specific topics, mailing lists, WWW pages, etc. Organizations and individuals who used th

As the electronic highway evolves into a new mass medium, it is essential that women be fully involved in its development. Experience in the past with other mass media has not always been positive for women. There is no guarantee that experience with the new CNTs will be any different. Negative stereotyping and discrimination against women as well as forms of sexual harassment on line are already evident. The Platform for Action [\(Pfa\)](#) adopted at the FWCW called for women to take an active role in shaping the use of cyberspace to prevent similar patterns of abuse as seen in other mass media. The Platform will be implemented at a time of rapid growth in the new information technologies. Since communications are at the heart of empowerment of people, women must ensure that the new technologies serve to empower them. Computer literacy is becoming an indispensable tool for organizing and mobilizing communities throughout the world, and women need to be directly involved in this new medium.

This issue of Women 2000 examines the growth in computer networking and the experience of women in using these new technologies.

How fast are computer networks growing?

The Internet is a global network of computers linked by high-speed datalines and wireless systems. It was established in 1969 as a militarycommunications system. It allows individuals to access information from manysources using a computer.[\[3\]](#) The use of the

Permanent Mission to the United Nations, stated in a speech to the United Nations Economic and Social Council on 16 July 1996 that:

For those in possession of information technology, power, influence, privileged status and domination are further enhanced and assured. The reverse is true for those without access to informatics. But it has also great chances of contributing to equity, development and progress, permitting those lagging behind to leap-frog to more advanced stages of development. Informatics has enormous potential to redress the disparities and material inequalities of our world the cheapest and fastest way. But in it are also great possibilities of accentuating our material inequalities, the powerlessness of the have-nots and the misery of millions bypassed by the information superhighway. [13]

The Taub Urban Research Center at New York University recently published a study based on data gathered by two consulting firms in the United States. Entitled "Leaders and Losers on the Internet", it addresses the impact of the Internet on urbanization. It notes that while many had predicted that global computer networking could decentralize work and living patterns, to date the impact of the Internet has been mainly to reinforce the economic and intellectual leadership of a handful of urban centres and nearby suburbs. [14] Computer science professor David Gelernter of Yale University, in commenting on the study, said that it showed that Internet connections were spreading beyond university- and computer-based origins into centres of affluent, well-educated people. He expressed doubts, however, about the economic and cultural advantages of having many Internet connections. [15] The introduction of CNTs is raising new questions about the theory of technology-led urban decline in industrialized societies. For developing countries, it may become another of the factors attracting people to urban areas.

While the new medium includes the potential for democratizing information and

DeLeon, Microsoft Network Product Manager, quoted in "What Women want On-Line", Interactive Media & Marketing, 6 November 1995)

The contribution of women to Internet tools such as the UseNetnewsgroups is "typically not very high, but the actual numbers are subject to debate. In the unmoderated feminist newgroups, approximately 80 per cent of the messages are posted by men. In the moderated feminist groups, there is usually about a 50/50 balance between women and men." [20] Different networks attract different audiences. SeniorNet, a consumer-oriented on-line-service available on America On-line that caters to the 'mature market', reports that their audience mix is 51 per cent female and 49 per cent male. For other services such as CompuServe, Genie and Prodigy "between 60-90 per cent of the customers are male." [21]

How are women using the information superhighway?

The Women's Networking Support Program of APC has recently conducted a survey on women's experiences with electronic networking. Early results are from 30 countries in Africa (Cameroon, Nigeria, Senegal, Tanzania, Zimbabwe), Asia and the Pacific (Australia, India, Japan, Malaysia, Philippines), Eastern Europe (Croatia, Russia Federation, Ukraine), Western Europe (Austria, Belgium, France, Ireland, Italy,

alternative and gender-sensitive practices. Women need to decide whether they will create their own closed spaces on the Internet or assert their presence in mixed spaces. And once again, the answer is, surely, both. Without this kind of action, we can expect that the new medium will increasingly be yet another means to perpetuate negative stereotypes, or another male enclave where women are discriminated against and marginalized. [\[27\]](#)

Women have increasingly created alternative communications outside the mainstream media to counteract discrimination and stereotyping. Independent alternative media controlled by women include print media, video, film, radio broadcasting and, increasingly, the CNTs. Women have created and used alternative communication

Notably, several organizations and bodies held meetings in this field in preparation for the Beijing Conference. One important gathering to assess strategies and plans for using electronic networking was held in Bangkok from 12 to 17 February 1994. The "Women Empowering Communication" conference was sponsored by the World Association for Christian Communication (WACC) in association with ISIS International and the International Women's Tribune Centre (IWTC). More than 400 women from over 80 countries participated. As a result of the meeting, the Bangkok Declaration was adopted, which emphasized strengthening women's communication networks. [\[34\]](#)

UNESCO convened an international symposium on "Women and the Media: access to expression and decision-making" in Toronto, Canada, from 28 February to 3 March 1995. A Platform for Action was adopted which stressed the need for greater involvement of women in both the technical and decision-making areas of communication and media. The symposium was attended by over 170 media professionals from more than 70 countries, and its results served as an important input to the negotiations on women and the media at Beijing. Following the Conference, UNESCO and the Society for International Development are studying the culture of the Internet and its potential as an effective tool for women. The project, "Women and Cyberculture", analyses the impact of globalized communications from a gender perspective.

Sexual harassment is also identified in Chapter J of the [PFA](#) as one of the acts of gender-based violence encompassed under the critical area "Violence against women". On the Internet, harassment presents an important issue for women. It has occurred in both public forums and private E-mail. It takes different forms and can be subtle, such as personal questions directed to a woman, or blatant, such as sexual propositions to women via E-mail. [\[35\]](#) The Internet neutralizes social status indicators such as appearance, voice, organizational hierarchy and often sex. This anonymity seems to encourage certain individuals to act with fewer inhibitions than they would face to face and remains a disturbing problem.

Conclusions

Electronic networking is being discovered by women as a useful medium for gaining access to information globally and for interacting quickly with people in many parts of the world, something which was not possible just a few years ago. Increasingly, networking is viewed as a tool for feminist empowerment. Clearly, however, the cost of equipment, lack of training and the hazards and irritation that some women have encountered on line, as well as the limitations women face in allocating time to networking activities, are obstacles yet to be overcome.

WomenWatch: United Nations Internet Initiative in the Follow-up to the FWCW

In the follow-up to the FWCW, the United Nations is continuing to provide information electronically on global women's issues, an effort which began during the Conference. It also is examining the various ways by which wome

Participants underlined the value and potential of tools such as the WWW for raising awareness and educating users in the North, but emphasized that, given disparities in access across urban/rural, class, gender, age, ethnic and North/South lines, it was important to also consider off-line distribution strategies. These include repackaging strategies and E-mail query tools to access information available on the Web. In this regard, E-mail was recognized as the primary working tool for the majority of women users of electronic communication systems.

It was recommended that parallel and linked processes be established for envisioning and building a beyond-Beijing on-line initiative. Partners in WomenWatch should include the media, the private sector, NGOs, women's organizations, United Nations entities, Governments, academics, libraries, redistributors, funders and new users.

The experts attending the workshop concluded that the United Nations has an important role to play in promoting greater understanding and use of computer networks by women and in providing information about the FWCW and its implementation through electronic means.

Taking into consideration the recommendations of the Workshop, a key aspect of WomenWatch will be to define the need for and coordinate electronic conferencing and bulletin boards to facilitate interactive feedback with users. Internet query mechanisms will also be established for E-mail-only users. The information will be organized in an Internet-accessible database to allow users in developing countries who do not have direct access to all Internet tools to retrieve the information. WomenWatch will develop partnerships with various groups that repackage and disseminate information to women's organizations and resource centres in locations with no Internet access. It will also work closely with organizations that provide training for women in the use of the new technologies.

The WomenWatch Committee will liaise with the United Nations Department of Public Information to develop and implement a strategy to publicize WomenWatch and coordinate with the development of the United Nations home page.

Participants at the recent United Nations workshop on computer networking technologies recommended, inter alia that there be a global women's conference on line in the year 2000 to review implementation of the Beijing Platform for Action. What do you think of this idea? Send your ideas to the UN Division for the Advancement of Women via Internet: daw@un.org, or write: Division for the Advancement of Women, Room DC-2 1216, United Nations, New York, NY 10017.

For copies of the Report of the United Nations Workshop on Information Dissemination through Computer Networking Technologies in the Follow-up to the FWCW and of Women 2000, visit the DAW web site: <http://www.un.org/dpcsd/daw/dawnew.htm> or by E-mail to: daw@un.org

NOTES

1. Sally Burch, "Women and the media in the era of new communications technologies", unpublished paper, October 1995, p. 5
2. Ibid.
3. US News and World

17. "Internet Market", Cyberatlas, op.cit.
18. Ibid.
19. American Internet User Survey, Find/SVP, Emerging Technology Research Group, December 1995.
20. Maureen Ebben, Cheris Kramer and Jeanie Taylor, eds, *Women, Information Technology and Scholarship* (Urbana, University of Illinois, 1993), pp. 15-27.
21. Leslie R. Shade, "Gender Issues in Computer Networking", unpublished paper presented at Carleton University, Ottawa, Canada, 17-19 August 1993.
22. "APC Women's Networking Survey -- Initial Findings (September 1996).
23. Ebben, Kramer and Taylor, op. cit.
24. Burch, Sally. op.cit. p. 5.
25. Burch, Sally, op. cit. pp.5-6.
26. "Women's Participation in the News: Global Media Monitoring Project", in Gallagher, Margaret, op. cit. p. 10.
27. Burch, op. cit. p. 6.
28. Sally Burch, "The Internet: a tool for women's organizations", Discussion note prepared for the UN Expert Workshop on Global Information through Computer Networking Technology in the Follow-up to the Fourth World Conference on Women, United Nations, New York, 26-28 June 1996.
29. "Report of the Fourth World Conference on Women", para. 237.
30. Ibid. para. 246.
31. Ibid. para. 243c.
32. Ibid. para. 244a.
33. United Nations, Commission on the Status of Women, Report on the fortieth session, Economic and Social Council, Official Records, 1996, Supplement No. 6 .
34. "Bangkok Declaration", Women Empowering Communication Conference, Bangkok, 1994.

35. Shade, op. cit. p. 5.

Key Terms to Know



Computer networking technologies (CNTs): The various tools being developed for electronic dissemination of information.



Domain: A method of identifying computer addresses on the Internet. Typically the name of an institution or entity followed by a "dot" and an abbreviation, e.g., "gov" for governments, "edu" for educational institutions, "com" for companies, "net" for networks or "org" for organizations.



Electronic conference or bulletin board: A collection of messages related to a particular topic.



Electronic mailing list (also called Listserv): A list of E-mail addresses of people who regularly communicate with each other. You can subscribe to receive messages automatically by sending a request via electronic mail to a specified address.



E-mail: Short for "electronic mail", it's like a letter, a message that one person can send and have received almost instantaneously by someone anywhere in the world via computers and modems using telephone lines.



Gopher: A menu system that organizes and provides easy access to information available on the Internet. The gopher can help you locate information, download files and search databases.



Home page: A Web screen that acts as a starting point. A user can go from a home page to multiple sites across the world's computer networks.



HTTP (Hypertext transfer protocol): The Internet standard that enables information to be distributed across the Web using hypertext markup language (HTML) to upload information.



Internet (The Net): A global network of computers that makes it possible to share information electronically. It offers both one-way communication and "virtual" interactive communication. It allows networking, conferencing, commercial transactions, shopping, banking and publishing. The most popular uses of the Net are E-mail and the



Modem: Either an internal or external attachment to your computer that allows you to transmit or receive data through your phone lines. The name is short for modulator-demodulator.



Newsgroup: a single forum for discussion on Usenet. A newsgroup's name denotes the appropriate topic of conversation in that newsgroup. For instance, "comp.sys.mac.comm" is for discussion of communications on the Macintosh computer system; "sci.physics.research" is for discussion of research in physics. The contents of a newsgroup consist of postings -- individual messages, submitted from anywhere on the Internet.



On line: On or actively connected to a computer network.



Logging on: Connecting to a computer network.



URL (Universal Resource Locators): On the World Wide Web, a URL can be thought of as a road map for accessing a specific resource, such as a Web page or gopher site. URLs express the type of resource to be accessed, the specific site where the information is stored and where at the site the information is located. Many URLs begin with the characters http://, gopher://, or ftp://.



Web browser: Enables users of the Internet to discover, retrieve and display documents and data available on the WWW. Web browsers allow the user to view selectively hypertext documents, access powerful text-searching tools, listen to sound files, and view graphics, animation and video across the Internet.



World Wide Web (WWW): Originally a project developed by CERN (European Laboratory for Particle Physics) for sharing information within internationally dispersed teams over computer networks. It allows text and graphics to be shared with anyone else on the network. The WWW is one of the fastest growing areas in the field of computer-mediated communications. It is estimated that there are over 400,000 Web sites.

- Sources:
- US News and World Report, 13 November 1995
- UNICEF exhibition: "Summitry Works: Words into Action"
- Internet Corner
- Multimedia Online
- The Tribune, Newsletter 55, International Women's Tribune Center, New York, September 1996.

- Computer NewsNote, IWTC publication, New York.

Did You Know?

Historically, the creation and development of the computer industry was dominated by men. There were nevertheless a few women pioneers in this field, for example:

Edith Clarke (1883-1959)

Clarke filed a patent for a "graphical calculator" and contributed to simplifying and reducing the time spent in laborious calculations in solving problems in the design and operation of electrical power systems.

Grace Murray Hopper (1906-1992)

Hopper was called "Amazing Grace" because of her outstanding achievement in the computer field. One of her contributions is the invention of COBOL, the first user-friendly business software program, which is still in use.

Source: "Past Notable Women of Computing"

<http://www.cs.yale.edu/HTML/YALE/CS/HyPlans/tap/past-women.html#Grace>

Selected Bookmarks on Women's Issues

African women's issues

<http://www.africaonline.com/AfricaOnline/women.html>

ALAI's Women's Program

<http://www.ecuanex.apc.org/alai/comgenen.html>

A Web of One's Own

<http://www.reference.be/womweb/>

Computers and the Communication of Gender

<http://www.itcs.com/elawley/gender.html>

Ebben, Kramarae "Creating a Cyberspace of your Own"

<http://gertrude.art.uiuc.edu/wits/introduction.html>

FinFo: Finnish Woman

<http://www.vn.fi/vn/um/finfo/english/finwoman.html>

Gender and Technology (CPSR)

<http://cpsr.org/dox/program/gender/index.html>

Gender and the Web

<http://www.scu.edu.au/ausweb95/papers/sociology/chua>

Gender in Cyberspace

<http://sunsite.unc.edu/cmc/mag/1995/feb/last.html>

Hoffman, Kalsbeek and Novak, "Internet Survey"

<http://www2000.ogsm.vanderbilt.edu/baseline/1995.Internet.estimates.html>

Il Paese de la Donne. Women from Italy .

<http://relay.isinet.iunet.it/PdD>

International Network of Women in Technology

<http://www.witi.com> La Mujer- Peruana

<http://ichu.rcp.net.pe/MUJER>

LANETA, Red de Mujeres, Mexico

<http://laneta.apc.org>

Leading to Beijing: Voices of Global Women

<http://www.cee.umn.edu:80/radiok/beijing>

Network of East-West Women

<http://www.igc.apc.org/neww/>

NGO Forum on Women'95

<http://www.igc.apc.org/womensnet/beijing/forum/forum.html>

OneWorld Online

<http://www.oneworld.org>

Russian Feminism Resources Home Page

<http://www.geocities.com/Athens/2533/russfem.html>

"The Accidental Superhighway" A Survey of the Internet. The Economist.

<http://www.economist.com/surveys/internet/index.html>

The Association for Women in Computing

<http://www.halcyon.com/monih/awc.html>

Virtual Sisterhood

<http://www.igc.org/vsister/>

Web-sters Network: Women in Info Technology

http://lucien.berkeley.edu/women_in_it.html

Women and Computer Science (Including collection of photographs)

<http://www.ai.mit.edu/people/ellens/gender.html>

Women: Computing and Networking

<http://tampico.cso.uiuc.edu/~gressley/women/>

Women for women in Bosnia

<http://embassy.org/wwbosnia/wwbosnia.html>

Women in decision-making. The European Network.

<http://www.reference.be/wo-mancracy>

Women's Online Media. Japan

<http://tsuru.suehiro.nakano.tokyo.jp/WOM/index.html>

WomenzNet, Australia

<http://www.womenz.net.au>

Notable Events

DAW

Expert Group Meeting "Women and Economic Decision-Making in International Financial Institutions and Transnational Corporations"

Simmons College

Boston, Massachusetts

11-15 November 1996

World Food Summit

Food and Agriculture Organization of the United Nations (FAO)

Rome, Italy

13-17 November 1996

AW/UNFPA/DSD

Expert Group Meeting "Women, Population and Sustainable Development: The Road from Rio, Cairo and Beijing"

INSTRAW

Santo Domingo

18-22 November 1996

Expert Group Meeting "Vocational Training and Lifelong Learning of Women"

International Training Centre, ILO

Turin, Italy

2-6 December 1996

Committee on the Elimination of Discrimination against Women

16th session

UNHQ, New York

13-31 January 1997

Micro Summit

Grameen Bank, World Bank, Citibank, UNDP, Women's World Banking

Washington, D.C.

2-4 February 1997

IPU Symposium - "Towards Partnership between Men and Women in Politics"
New Delhi
10-14 February 1997

Commission on the Status of Women
UNHQ, New York
10-21 March 1997
