

20 years of Women & Environments Magazine

W
E

International

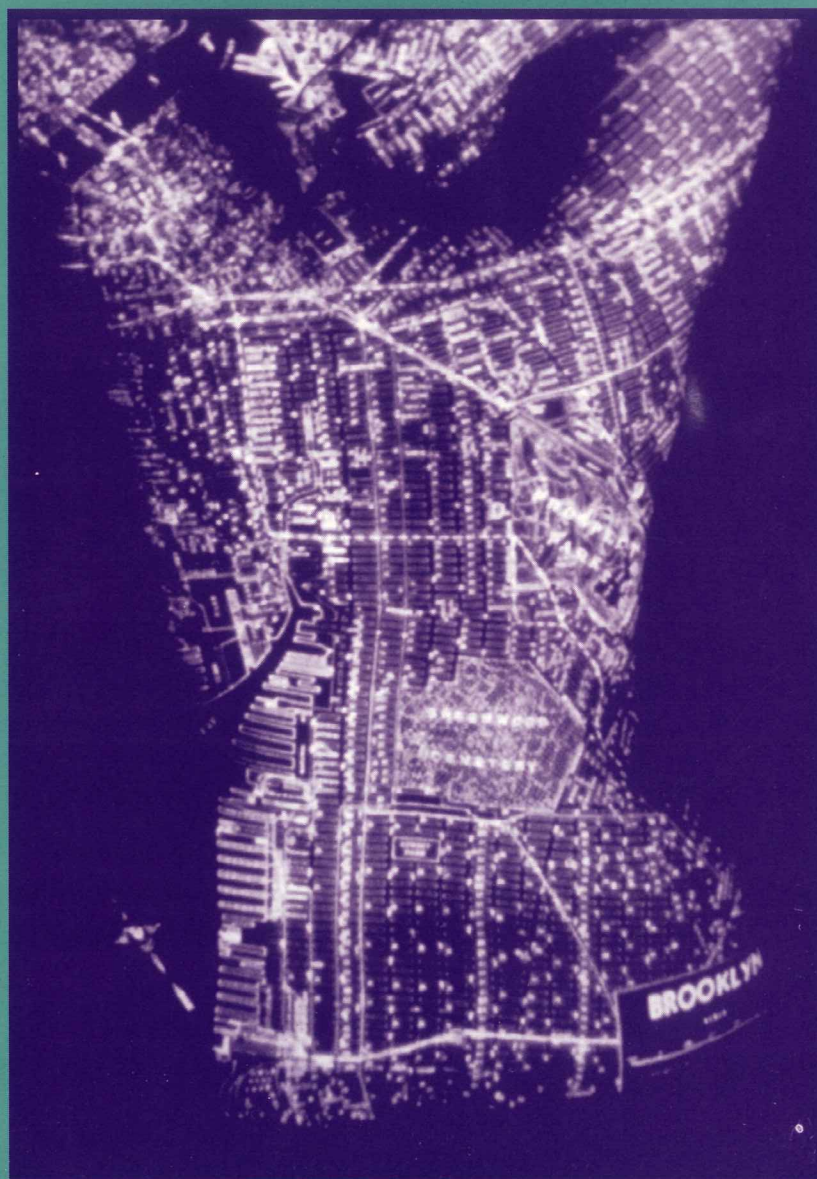
SPECIAL
DOUBLE ISSUE

FALL/WINTER 1997/98 ISSUE NO. 42/43 \$8.00

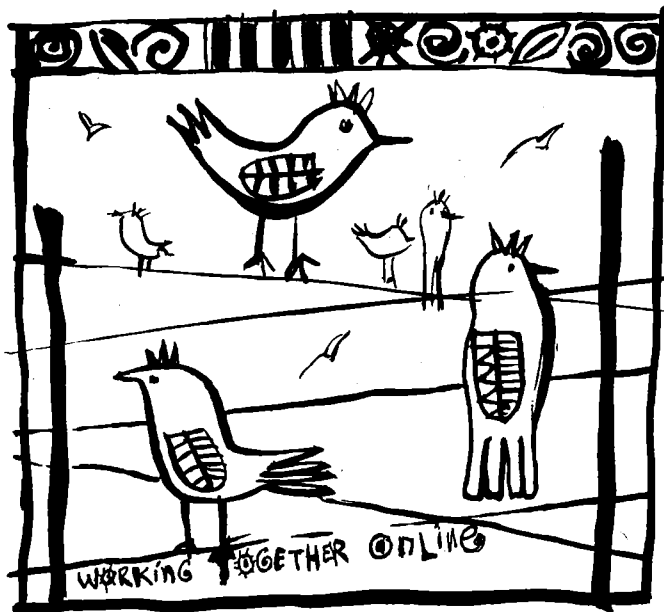
Cutting
the Cord

Bastards
and Femme
Fatales
On-Line

Defending
the
Artificial
Womb



WomanTech



Working Together Online

A New Book About Internet Collaboration

The Internet, and now intranets, are creating exciting new ways to work together. Campaigns, events and projects can all be developed online by people hundreds or thousands of miles apart. But more than just computers and modems are needed to make this happen, you also need an understanding of *Working Together Online*.

In *Working Together Online*, learn how to:

- move your group to an online workspace
- assess your "true" technical needs
- creating a productive workspace
- holding an online meeting
- keeping your workspace active
- choose the best online collaboration tools
- identify the facilitators in your group
- dealing with conflict
- drafting a joint document
- ... and much more!

Authors Liz Rykert and Maureen James put years of online facilitation experience together in this comprehensive resource for effective use of online workspaces. Web Networks, a Canadian, non-profit, online service provider has been building online communities for ten years. Web Networks is working to make electronic networking more accessible and effective for people working to make a difference in the world.

1.800.932.7003

<http://community.web.net/order.html>

outreach@web.net

Web Networks: 401 Richmond St. W., Suite 334, Toronto, Ontario M5V 3A8 Canada

Contents

Issue No. 42/43

- 4 **WEspeak**
Melanie Stewart Millar
- 6 **Politicizing the Internet:
Getting Women On-Line**
Barbara Crow
- 10 **Gender Planning on the Internet:
A Review of Electronic Resources**
Stacy Harwood
- 12 **Rural Ugandan Women and the
Technological Race to the 21st Century**
Immaculate Wamimbi Tumwine
- 15 **Enter the Dragon...**
Geneva Smith
- 16 **Revisiting a Classic Feminist Technopia:
Marge Piercy's Woman on the Edge of Time**
Marie T. Farr
- 18 **Cameras in the Feminist Classroom:
Access or Distraction?**
Bonnie M. Winfield
- 20 **Cyberspace: A New Environment for Women**
Susan Myburgh
- 24 **Same Message, Different Medium**
Larissa Silver
- 26 **WEfocus: Nancy Paterson**
Fredrica Mintz
- 28 **Saving Time:
Rural Honduran Women Working For Change**
Hélène Grégoire
- 31 **Opening the Kitchen Door:
Household Technology and Research**
Jacintha L.M. van Beveren
- 32 **Women & Wires: Feminist Connections
and the Politics of Cyberspace**
Caitlin Fisher and Maureen Engel
- 35 **Changing the World...Electronically**
Peregrine Wood
- 40 **Technology and Development:
Strategies for the Integration of Gender**
Saskia Everts
- 42 **Reproducing Persons: Issues in Feminist Bioethics
by Laura Purdy**
reviewed by Christine Saulnier
- 46 **textspace**
Larissa Silver and Melanie Stewart Millar

Front cover image by Alison Bindner
"Female Cityscape," Silverprint, 24" x 36", 1992.

The work presents the female form undergoing a transformation. The physical body dissolves into measured points of light, defining a temporary form in space and time.

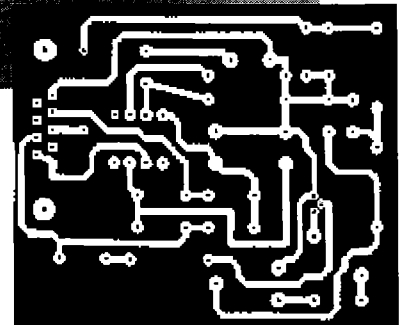
Back cover image: "Don't worry", frame from Vera Frenkel's "Messiah Speaking" animation, Piccadilly Circus, London (winter 1990/91). The *Messiah Speaking* project traces succinctly the collusive relationship between messianic fantasies and consumerism. The animated version beginning "This is your Messiah speaking, instructing you to shop..." was designed for the Piccadilly Circus Spectacolor Board, and installed for a five-month period in the heart of the most expensive shopping district in the Commonwealth.

WE speak

by Melanie Stewart Millar

Women and Environments has a history of trying new things. After all, it was W&E that first pioneered feminist analysis of the gendered built environment. And now — in its freshly invigorated incarnation as WE International, it seems only appropriate that these pages be filled with something truly original. Something new, exciting, and decidedly different.

Yet here we are, shamelessly jumping on the bandwagon of a fin de siecle culture positively mesmerised by the toys of technology. Tech-this. Cyber-that. Surf-what? Surely if there could be any place free of such technological fetishism — a veritable 'modem-free zone' and a haven from hypermodern insta-everything — that place would be a small ecofeminist magazine, struggling to survive in the 'Great White North'...

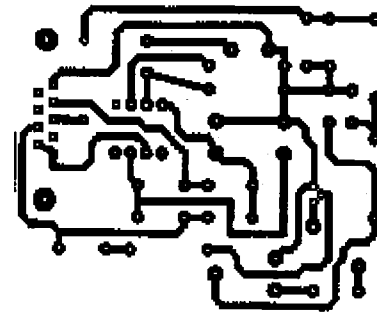


But this issue's theme, women and technology, needs no apologies. Because no matter how many advertisements proclaim the birth of a new digital Nirvana, and no matter how many editorials and documentaries ruminate about the "opportunities" of the new Information Age, one thing is clear: critical feminist perspectives on women's relationships to new and existing technologies remain few and far between. Far from clinging to the coat-tails of Bill Gates on our way to the New Wired World, this issue of WE International is dedicated to presenting alternative feminist analysis of a variety of technological environments.

In a world that is both captured by the myths of McLuhan's "global village" and anxiously trying to cope with the human and ecological tragedies of what we euphemistically call "restructuring" and "international free trade," such feminist alternatives are urgently needed. However, this issue does not claim (or even aspire) to present a single form of feminist resistance to the technological developments that all too often play roulette with our environment. Rather, the issue represents a diversity of sometimes contradictory feminist voices and practices; from women who actively embrace new technologies as a potential source of liberation, to those who remain highly skeptical of late capital's new gadgets. The academic, professional, and activist writers in this volume explore a motley blend of technological devices and infrastructures that have become ubiquitous in many of our environments; from vacuum cleaners to the Internet, from community grinding-mills to *in vitro* fertilization. And scattered throughout this issue are a number of short reviews of websites of particular interest to our readers.

WomanTech is designed to be both critical and thoughtful, as well as accessible and entertaining; WE International is changing its style, but not its commitment.

This issue has been a joy to produce, due in no small degree to an enthusiastic and intelligent editorial sub-committee, consisting of Leigh Holm, Liz Millward, and Larissa Silver; an inspired Art Editor, Fredrica Mintz; and an endlessly patient and knowledgeable Manager, Lisa Dale. Special thanks are due to the Trillium Foundation for its financial support, Web Networks for hosting our launch, our generous supporters, and, of course, to the talented and gracious writers and artists who contributed to this issue. **WE**



Magazine Manager and Circulation: Lisa Dale
Managing Editor for this Issue:
Melanie Stewart Millar
Editorial Committee for this Issue:
Leigh Holm, Larissa Silver, Liz Millward
Editorial Board: Kim Kelly, Leigh Holm,
Melanie Stewart Millar, Regula Modlich, Larissa Silver
Founding and Past Editors:
Judith Bell, Rebecca Peterson, Gerda Wekerle
New Editorial Board Members:
Suzanne Farkas, Melissa Gasic, Helen Hacksel,
Nancy Lugsden, Nicole Nolan, Liz Millward, Elvira Mata
Art Editor: Fredrica Mintz
Design and Pre-press: Heather Guylar
Front Cover Image: Alison Bindner
Artwork: Nancy Paterson, Nell Tenhaaf, and Vera Frenkel
Administrative Assistant: Eva Musso

WE International gratefully acknowledges the support of the Bathurst Street United Church Centre for Peace and Justice which provides low cost office space for the WEED Foundation.

WE International (ISSN 02290480S) was founded as Women & Environments in 1976, has charitable status (#0781708-29) and is owned by the WEED Foundation and published quarterly. Donations over \$20 are tax receiptable.

Second class mail registration No. 7608.

WE International is indexed in Alternative Press Index, Canadian Periodical Index, Social Sciences Index, Women's Studies Abstracts.

Address all correspondence to:
736 Bathurst Street, Toronto, Ontario, Canada M5S 2R4
Tel: (416) 516-2600 Fax: (416) 531-6214
e mail: weed@web.net
Homepage: <http://www.web.net/~weed>

Printed on 100% non-chlorine bleached paper

WE International is a unique international magazine which examines women's multiple relations to their many environments — natural, physical, built and social — from feminist perspectives. It provides a forum for academic research and theory, professional practice and community experience. The magazine is owned and published by the WEED (Women and Environments Education and Development) Foundation, a non-profit, voluntary organization. Editorial board members view the collective editing and production of WE International as a contribution to feminist social change.

>

>

> **Politicizing the Internet:**

> **Getting Women On-Line**

> **by Barbara Crow**

> **Introduction**

Feminist analysis has consistently revealed the historical gendering of technology (Balka 1992, 1997, Rothschild 1983, Taylor et al 1988). This analysis not only reveals women's limited opportunities and the conditions surrounding technology, but also provides us with insights on how to challenge and resist this gendering. It has been my task to translate the feminist analysis on gender and technology into the feminist practice of getting women on-line.

In an examination of the Internet, feminism has taught us to ask important questions about the relations of power — Who benefits from the Internet? What are its origins? Who has access to the Internet? Whose language shapes it? How can we intervene — do we want to intervene in this technological practice? But in order for any of these questions to be addressed, a more primary intervention has to occur. We must provide the conditions and opportunities to get women on-line. This article describes one approach to such feminist intervention.

> **The Workshops: For Women Only**

I have offered workshops on university campuses in the United States and Canada. While I recognize that this is a privileged site, it is a community where I spend most of my time as an academic. It is in our local communities where we must begin with "community based needs". Also, while the assumption is that universities have the "latest" and most "sophisticated" digital technologies, the availability of computers, on-line services and resources vary dramatically across campuses.

In these contexts, I have developed a variety of workshops pertaining to the Internet. The workshops I will address specifically are "Exploring the Internet" and "Creating your own Home Page". The workshops are generally three hours long. The content of the workshops takes approximately two hours to deliver and an extra hour

is available for questions. The following is a description of what I do in the workshops and how I conduct them.

Before I offer the workshops, there are two important steps that need to be taken. The first step is a discussion of how to notify and invite the various women's communities to the workshops. The workshops are an excellent opportunity to develop and build ties in the women's community. Diversity is ensured by advertising the event to all of the women's groups on campus — these include students, staff and faculty. I have also been asked by specific women's groups to cater a workshop to their needs. This attention to how best to reach the women's communities in universities has meant that the participants in the workshops have ranged in age from seventeen to the early seventies; they are white women, women of colour and First Nations women; and they are students, staff and faculty.

The second step is to visit the facilities where the workshops are to be offered. I check out what kind of computers and software, Internet services, and computer resources are available. It is also time to find a computer lab that will allow each participant to be in front of her own terminal and a friendly technical person whose name I can pass on during the workshops. I then cater one of the working Internet documents developed by Linda Tauscher and myself to the particular institutions. Once these two steps are completed, I begin the workshops.

Before anyone puts fingers to the keyboard, I relay my own personal narrative around computers and contextualize the Internet. This is the important work of demystifying computer technology. I do this first by providing a brief history of the Internet — its origin story. This allows participants to see why they may not have been interested in this technology and reveals how computer language operates as a barrier. We then move to a discussion of the location of

women in the computer science profession and the numbers of women on the Internet.

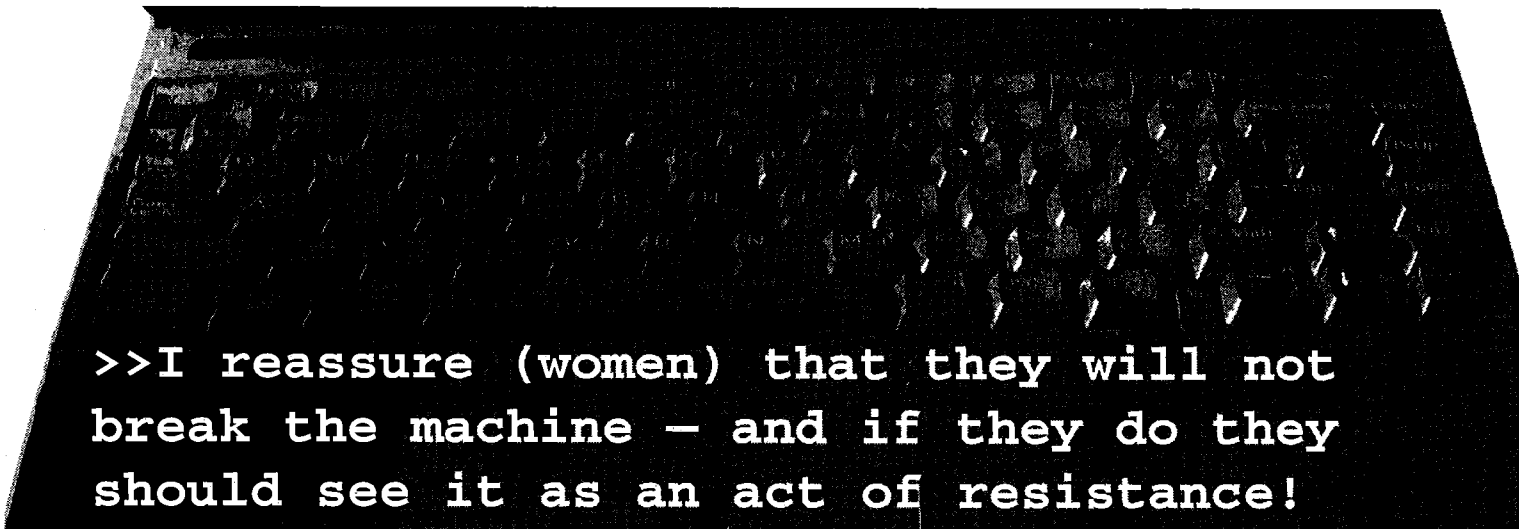
I address and dispel the fear many women report regarding their interactions with computers. I reassure them that they will not break the machine — and if they do they should see it as an act of resistance! I dispel the fear of "being stupid" — that they do not understand how computers work. In particular, I reveal how the technical delivery of the technology is politicized. I discuss the power of computer technicians and try to break down the barriers of how participants can make technical support work for them.

I finish this section by framing the workshop around the tension between the Internet's ability to surveil and control and for it to be a place for feminists to subvert and resist. Most important, I explain that I am providing them with the information to decide whether or not they want to participate in the technology.

Once the intellectual tools are made available, we move to the technical dimension of the workshop. There are two factors to be considered. The first is how to use this technology with an emphasis on problem solving. The second involves computer needs.

> How does this technology work?

I provide a variety of tools for participants to learn about computers and the Internet. This provides a range of



>>I reassure (women) that they will not break the machine — and if they do they should see it as an act of resistance!

>>I never touch
anyone's
keyboard without
the permission
of the user.



After years of
assisting with
computer
technology, many
women have told
me that when
they have asked
for technical
help, the
technician (most
were male) has
taken over their
keyboards.

materials and strategies to assist with problem solving. A lengthy verbatim account of the workshop is handed out (These hand outs are available at the following web site <http://www.ucalgary.ca/~crow/internet.html>). I encourage participants to write down steps that may have been forgotten in the preparation in the hand out or to jot down responses to the questions that are raised: I make what you need to know for problem solving explicit throughout the workshops. An overhead is connected to a computer so they can look to a larger screen to match up with their own. Finally, I encourage participants to consult with their peers during the workshop. This develops their skills for asking questions and begins the work of constructing themselves as "experts". They have a hard copy of the workshop, their own terminal, a projected version of the screen, pen and paper, my talk, and their peers.

Finally, there are two other important dimensions that operate throughout the workshop. First, I never touch anyone's keyboard without the permission of the user. After years of assisting with computer technology, many women have told me that when they have asked for technical help, the technician (most were male) has taken over their keyboards. In this situation, the women either abdicate responsibility for solving the technical problems, hope that through observation they will be able to reproduce the corrective measures, and/or are afraid to ask for fear of seeming 'stupid'. When a problem arises, I get the participants to invoke strategies for addressing the problem.

Second, and related to the first concern, is that we do not move forward in the workshop until everyone is at the same place. This dimension is critical as it reveals to the participants that they are not always responsible for why a computer may not be responding to the seemingly "correct" commands. It also provides an opportunity to invoke problem solving strategies by asking participants to turn to the screen(s) at hand and make suggestions.

The workshops are concluded with my hope that participants will modify the workshops to their specifications and that they will pass on this knowledge to other individuals and groups.

> Reflections on the Process

This is just one kind of feminist intervention into the foray of digital technology on university campuses — it must be recognized along with other initiatives such as groups like Women in Science and Engineering (WISE). While I have

been successful in teaching hundreds of women on the Internet, my intervention works in the system as it currently exists and only for the women who take these workshops. Our task is how to reach women who do not avail themselves of these services — who continue to have an ambivalent relationship to computers.

We also have to be concerned by the ways in which our interventions are co-opted by the university. While we have used university resources for the workshops, they were not offered or paid for by the various academic computing services and so we are providing a service many universities are not prepared to offer. At one institution, a computer technician wanted to place a sexual harassment charge against us: the technician argued that workshops for women discriminated against men.

Finally, I am not developing the software, the crucial dimension of how we 'navigate' the "information highway," nor am I addressing the material conditions required to facilitate access outside of the university. These issues must be more fully addressed and pursued in our political work with digital technology.

I hope that others are able to use these suggestions for designing and implementing Internet workshops in their communities. It is a labour intensive process, but one that provides the conditions and opportunities for one kind of feminist intervention on the Internet and develops an additional resource for women's communities.



Web Networks:

Internet Solutions for People Not for Profit

Linking Canada's Social Change Communities

WWW Site Design
Online Communities
Training & Seminars
Internet Access
Online Strategy
Intranets

www.web.net
1 800-932-7003
 Since 1987

> Resources

Balka, E. "Womantalk Goes On-Line: The Use of Computer Networks in the Context of Feminist Social Change". Unpublished Ph.D. Dissertation. British Columbia, Simon Fraser University, 1992.

Rothschild, J., ed. "Machina Ex Dea: Feminist Perspectives on Technology", New York; Pergamon Press; 1983.

Taylor, J., C. Kramarae, and M. Ebben, eds. "Women, Information Technology, and Scholarship". Champaign-Urbana, IL; The board of Trustees at the University of Illinois; 1993. **WE**

<http://research.umbc.edu/~korenman/wmst/>

<http://www.interlog.com/~metrac/home.html>

<http://www.web.apc.org/~weed/>

<http://www.carfax.co.uk/gpcad.htm>

by **Stacy Harwood**

listserv@csf.colorado.edu

<http://www-rcf.usc.edu/~harwood/fem&plan.html>

<http://WWW-Geography.Berkeley.EDU/WomenBiblio/>

<http://www.interlog.com/~metrac/home.html>

<http://research.umbc.edu/~korenman/wmst/>

<http://www.interlog.com/~metrac/home.html>

Gender Planning

The rapidly expanding Internet provides vast opportunities for feminists to promote gender agendas and build cyber communities. This review surveys resources of interest to feminists involved in the environment and urban planning from academic, professional and activists perspectives. Initially, I "surfed the Web" using search engines such as Yahoo, Alta Vista and Webcrawler by entering key word combinations such as "women and urban planning" and "gender and environment." In addition, I posted queries to various electronic discussion groups asking for suggestions. Finally, I surveyed the Web pages of library databases and academic departments that contained extensive Internet references to feminist, women's or gender issues.

This meticulous process identified a growing and diffuse collection of worthwhile resources that can be grouped as follows: Discussion Groups; Reference Materials; and Community and Development Organizations. A few examples of each will be discussed below, and short descriptions of others are included throughout this edition of **WE International**.

Discussion Groups

Discussion groups are basically an extension of electronic mail, but instead of sending a message to one person, the message is sent to each person on a mailing list. Some claim that they have developed real friendships and expanded their professional networks because the discussion groups are a convenient and effective way to interact with people who share similar interests. At the same time, others find that messages are often misinterpreted and respondents are overly aggressive because the interaction is via a computer and not face-to-face.

Discussion groups exist on every topic imaginable; the difficult part is finding out where to sign on. For groups on gender and women's issues, the best place to start is at Joan Korenman's "Gender-Related Electronic Forum" Web page. This site is an outstanding annotated listing of publicly accessible electronic discussion groups (<http://research.umbc.edu/~korenman/wmst/forums.html>). More specifically, a discussion group that may be of interest to **WE International** readers is ECOFEM.

ECOFEM, or "Studies in Women and Environment," is an international discussion group established in 1994 to encourage exchange from a diversity of viewpoints concerning women and the environment, fueled by the multi-perspectives of ECOFEM subscribers. Subscribers also receive information on grassroots activism, legislation, publications, poetry, conference announcements, job opportunities, film reviews and much more.

The process is generally the same when subscribing to any discussion group. To subscribe to ECOFEM send an e mail message to listserv@csf.colorado.edu. In the message section type: Subscribe ECOFEM Firstname Lastname, where "Firstname" and "Lastname" is your real name.

Reference Materials

The World Wide Web provides easy access to various types of reference materials on the intersection of gender and geography, development, architecture or urban planning. Specific material is available through a wide range of institutional sites. For example, university libraries have on-line bibliographies of special collections, and some academic departments post course syllabi and reading lists. In addi-

Other sites worth examining are the Web pages for the journals *Gender, Place and Culture: A Journal of Feminist Geography* (<http://www.carfax.co.uk/gpcad.htm>) and **WE International** (<http://www.web.apc.org/~weed/>).

Community and Development Organizations

By far the most exciting sites on the Web today are those produced by community and development organizations. The issues range from violence against women and equal rights to child care and affordable housing. One example is the Metro Action Committee on Public Violence Against Women and Children (METRAC). METRAC is a community organization and resource provider based in Toronto, Ontario that promotes the rights of women and children to live free from violence. The Web site provides information on METRAC's activities and resources as well as links to other related resources (<http://www.interlog.com/~metrac/home.html>).

on the Internet

A Review of Electronic Resources

tion, most publishers have created Web pages that contain the latest table of contents and article abstracts for academic journals. These Web sites provide valuable aids when searching for research materials, keeping up with the latest article publications or when looking for ways to incorporate gender readings into the academic curriculum.

The majority of on-line bibliographies are compiled by university libraries. The most extensive bibliography that I found is on Geography and Gender. Containing nearly a thousand citations, this bibliography was a collaborative effort by the members of the discussion list for Feminists in Geography (GEOGFEM) and was compiled by Professor Kate Davis from UC Berkeley's Geography Department (<http://WWW-Geography.Berkeley.EDU/WomenBiblio/geography+gender.html>).

Considerable activity is happening on the Internet and its limits remain to be discovered. I hope this article will invite more feminist planners and environmentalists to take advantage of the networking and advocacy opportunities waiting to be tapped. In addition, those with Web sites are encouraged to link their sites to search engines and other feminist Web pages so that more people will have access to their work. To learn more about Internet resources related to women and the environment, go to: <http://www-rcf.usc.edu/~harwood/fem&plan.html> where the complete collection of Web sites used for this review are listed and periodically updated. **WE**

<http://??> <http://??>

Ugandan Women

and the



by **Immaculate Wamimbi Tumwine**

The words "technology" and "twenty-first century" have become intimately connected in popular discourse. Many in developed countries perceive the twenty-first

century as an age of ever more sophisticated technology in schools, hospitals and homes, an age of speeding production lines, automated toll roads, as well as the era of the quickly evolving information highway. Many in developing countries, however, fear that the twenty-first century add yet another ten decades during which millions of women, men and children will stay where they are: condemned to the tail end of the revolution and the hard struggle for survival.

There exists a wide world where electricity and the related electric cooker, refrigerator, television, telephone, computer or microwave remain unknown. There, the village clinic, if there is one, has antiquated equipment and has no cold storage facilities for vaccines. Factories have malfunctioning machinery, the schools are dilapidated, and the housing poor. Many rural areas are characterized by the absence of clean water and inadequate sanitation. Additionally, over half the world's population lives 2 hours from the nearest telephone source.

Looking at the conditions of the women, men and children who live in the undeveloped world, we should ask ourselves whether we — women, men and children in developed countries — are comfortable running in a technological race for the twenty-first century when most of the world's population has not even left the starting blocks? Are we fully aware of our potential to engage in or support

activities that could enhance the quality of life for so many millions through technological advancements?

Women, as a group, were targeted for analysis during the United Nation's Women's Decade (1975-1985), and most UN member states have ratified the UN conventions that focus on improving the conditions of women in areas that include technology.

Some Current Technological Needs of Women in Developing Countries

In most developing countries, it is still the women who perform the bulk of the work in agriculture and who carry the heavy burden of domestic work. These women, however, lack technologically advanced agricultural implements, and still rely on low production tools such as hoes. They do not have supportive and affordable water pumps, and lack dry food storage and grain preservation facilities. There is need for affordable, suitable technologically advanced implements and storage facilities in the area of agriculture.

There is also urgent need to ease the burden of domestic work through facilitating the acquisition of affordable, easily usable domestic appliances. A 1988 Women's Needs Assessment Survey in Uganda (Nalwanga-Sebina and Natukunda, 1988), indicated that the women surveyed worked an average of 15 hours per day, which left them little time for other activities. The limited application of technology in domestic activities, as is the case in agricultural production, is mainly due to general unavailability of cheap appropriate

or easily adaptable technologies for rural area development.

In many developing countries, rural transport networks are poor or non-existent, which makes agricultural and other products difficult to market. Development-related information dissemination is inadequate, due to absence or lack of affordable radio and television posts in remote communities. The telephone and even the post office are unavailable in many rural communities. The 1988 Women's Needs Assessment Survey in Uganda referred to above, established that 31% of the women surveyed did not have any access to radio. Access to a television post is out of the question, since rural electrification has not yet reached remote communities.

water and electrical engineering. On another level, there are needs for skills in adaptive research and for solar energy research, production and solar equipment installation and maintenance; appropriate domestic appliance manufacturing; watering facilities and adaptive food processing, preservation, and packaging technologies.

Governments must ensure availability of a workforce skilled in science and technology and also of entrepreneurs. The two must be able to develop manufacturing industries based on local needs, create cheap and appropriate technology, adapt imported technologies, and educate the population on products. Governments should ask whether the current capacity and intake of science and technology

Technological Race in the 21st Century

Satisfying women's technology requirements would substantially reduce women's domestic and other workloads, thus enhancing their quality of life, improving their contribution to agriculture and facilitating their participation in other important developmental activities, such as managing income-generating activities, taking better care of children, and participating in village politics and adult education activities.

Even without focussing on computer products and on the information highway, it is clear that appropriate technologies are needed in numerous other areas that include education, health and industry. In the latter, the technological requirements include appropriateness for small scale agriculture-based and other cottage industries.

The primary responsibility for improving the conditions of women through development lies with the governments and local agencies within the developing countries themselves. Indeed, many governments and agencies have devoted much effort and resources to improving the conditions of women in various sectors. A much greater focus on technology and women is needed, however, with respect to strategic planning for sustainable development. Governments need to ensure that the education system is capable of producing the skilled workers necessary for manufacturing or to modify imported technologies for local development.

On one level, the needed skills include those used for building and infrastructure construction, repair and maintenance, including construction and maintenance of railways, bridges and coaches as well as skills needed in tool, machinery and equipment, manufacture and maintenance, and for

facilities can satisfy the country's present and future requirements. Women, as potential users, should engage more fully in science and technology innovations, which would require the enrollment of more women in science counselling services to help them stay in science classes.

A better understanding of the needs of women in the developing world also means an understanding of the potential market for basic, affordable, widely available appropriate technology. Currently, manufacturers in the developed world continue to export expensive technological products to developing countries, ignoring the bigger market that exists for cheap technological products that are more appropriate for rural development. Millions of women, as well as men, in developing countries wish to purchase television sets that are run by battery power or small

**A much
greater focus
on technology
and women is
needed...for
sustainable
development.**

affordable electric generators, components of water pumps, etc., in an effort to improve their own condition and that of their parents. Yet these and other much needed appliances are scarce. From the economic point of view, satisfying women's potential technology requirements implies a potential increase in the demand for more and more relevant products.

In the developed world, individuals and organizations can support the efforts of both governments and local autonomous groups. Dialogues can be established or continued with counterparts in developing countries to establish the nature and extent of the assistance which is needed. Old and new computers, spare parts, and computer books can be collected and donated to schools or women's organizations, such as the YWCA, that provide training to women and girls. Industry can produce and market technologically appropriate implements and appliances for developing countries: Individuals and groups can act as advocates for women in developing countries and lobby industrialists and manufacturers in developed countries for initiatives that focus on improving the conditions of millions in developing countries. Groups can help mobilize financial resources for local or international projects that focus on adaptive research and the manufacture of appropriate tools, including energy-saving devices.

North-South partnerships can be between cities, local universities or colleges of technology, non-profit organizations, schools or individual classes, and individuals. Volunteering expertise or undertaking joint research or joint projects can result in a useful contribution to improving the lives of women in developing countries. There is a need for



<http://www.idrc.ca/sip/gender/scitech/index.html>

"Science and technology for sustainable human development: The gender dimension": This report was prepared by the Gender Working Group of the United Nations Commission on Science and Technology for Development.



<http://www.ids.ac.uk/ids/research/bridge/>

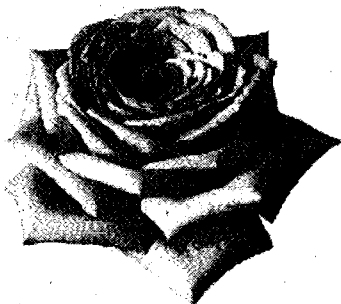
BRIDGE: An innovative information analysis service specializing in gender and development issues. BRIDGE's objective is to assist development professionals in both government and non-government organizations to integrate gender concerns into their work.

a deliberate drive in the developed world to include the developing world in the race to the twenty-first century through involvement in activities that make technology accessible to women, men and children in remote rural communities in developing countries.

References

- Nalwanga-Sebina A. J. and Natukunda, E. R., Uganda Women's Needs Assessment Survey 1988. Kampala, 1988.
- United Nations Economic Commission for Africa, Abuja Declaration on Participatory Development: The Role of Women in Africa in the 1990s, 1989. **WE**

terra femme



Woman is Powerful.

We are intimately related to Mother Earth, to each other, and to all of life. 'terra femme' tampons. Developed by eco-feminist activists. 100% cotton. No chlorine. No synthetics.

We believe this is the safest tampon available. Your purchase supports our work to protect consumers, the environment, ethical business, and women's empowerment.

In health,
Willi Nolan

TO ORDER, CONTACT WE INTERNATIONAL:

736 BATHURST ST. • TORONTO • CANADA • M5S 2R4 • 416/526-2600 • FAX 416/531-6214

BY GENEVA SMITH

Losing a lot of my physical strength over the years has been difficult. I have Muscular Dystrophy which is a degenerative disease that affects the overall functioning of the muscles. Over time, I have had to learn to adapt to changes in my strength and abilities. Depending on others for many simple actions is difficult for anyone, never mind someone who is fiercely independent. Yet, until recently, turning on the

television or opening the door was a completely impossible task without the assistance of others.

Just a little over a year ago my husband and I brought a new friend home. Decked out with a head set

ENTER THE DRAGON...

and attached microphone, similar to what you see telephone operators using, we have been able to train a Proxi system with a voice-activated program called "Dragon Dictate," to recognize commands and perform many different tasks.

We have been able to train this "Dragon" to recognize over ten independent tasks. My repertoire of commands includes turning on and off most of the lights in the house, opening the front door, programming the VCR and dialing the phone, to name just a few.

Recently, I've also gotten access to the Internet. I am a bookworm and with access to bookstores on the Net I can order my own books, shop for unusual gifts, find out useful (and useless) information, and e mail my family and friends. There are even places you can go to access information about assistance programs, and information that has somehow managed to stay in the shadows.

Unfortunately, because I have to command the mouse using an on-screen grid and spell words letter by letter (for example, to get an 'A' to appear I have to say, alpha), it takes me a long time to type an e mail message. My daughter and I have thus created our own language in which some consonants or vowels are missing. This makes it easier for me and yet still understandable for her.

Some people are intimidated by technology, others embrace it; some lose time using it and others save time. My "Dragon" has definitely given me a lot more freedom, confidence and independence, and, despite my petty complaints of its slowness, you would have to fight me tooth and nail to pry it from my life. **WE**

Revisiting a Classic Feminist Technotopia

Marge Piercy's *Woman on the Edge of Time*

by Marie T. Farr

**Progress is our most important product.
We bring good things to light.**

—General Electric Ads

Marge Piercy's novel, *Woman on the Edge of Time* (1976), reflects a commonly felt ambiguity about technology's value in contemporary life. While technology can help eliminate the inequalities caused by poverty, racism, and sexism, as it does in the Mattapoissett utopia, through Gildina's dystopia Piercy also warns of its potential to crush individuality, enforce stereotypical gender roles, encourage violence, and destroy the environment.

Piercy's heroine, Connie, visits Mattapoissett through the telepathic projection of a guide, Luciente, who leads her to the luminous realization of her own potency in affecting which future will survive. Upon her arrival in the ecofeminist utopia of Mattapoissett, Connie, who is steeped in the "lords of nature" idea that progress through technology means bigger is better, is incredulous that the buildings are "little no account buildings, strange structures like long-legged birds with sails turned to the wind" and that there are "no skyscrapers, no spaceports, no traffic jam in the sky". She asks, "You sure we went in the right direction? Into the future?" (68) Luciente explains that big cities didn't work; to be "ownfed" (self-supporting) is better.

In Luciente's utopia, technology still exists, but is relegated to serving human needs: to jobs too tedious for humans; to outlets for artistic creativity and sources of income; to means of distributing resources and eliminating societal inequities. As Luciente explains to Connie, "We have limited resources. We plan cooperatively. We can afford to waste...nothing. You might say our...ideas make us see ourselves as partners with water, air, birds, fish, trees." (125).

In this future, technology is a tool for improving society and is even used to eliminate racism by dividing race from culture. Bee, the Mattapoissettian who is black-skinned but culturally Wamponaug Indian, explains that through the use of genetic engineering her society "broke the bond between genes and culture, broke it forever. We want there to be no chance of racism again. But we don't want the melting pot... We want diversity, for strangeness breeds richness." (103-4).

Mattapoissett also serves to make explicit the patriarchal connection between control over resources and control over women's bodies. Reversing Aldous Huxley's horrifying vision of reproductive technology used to create master and slave races in *Brave New World*, Piercy describes a humanistic technology to create what Connie at first scathingly calls "bottle babies!" (102). Luciente claims the process as part of women's revolution for equality, the breaking up of all hierarchies: "Finally there was that one thing we had to give up too, the only power we ever had, in return for no more power for anyone. The original production: the power to give birth. Cause as long as we were biologically enchained, we'd never be equal. And males never would be humanized to be loving and tender. So we all became mothers" (105). In Mattapoissett society, men as well as women may nurse and nurture, and children are the private property of no one.

A very different potential future is forecast in Gildina's dystopic New York. When Connie accidentally time-travels into Gildina's world, she discovers that technology has made possible a horrifying world of sex slavery and class exploitation, where the air is unbreathable, the water fouled, the land arid, and the poor preyed upon by the wealthy and powerful. Women are degraded into vehicles for, as Gildina explains, "contract sex" (289). Gildina herself is "a cartoon of femininity, with a tiny waist, enormous sharp breasts...She

looked as if she could hardly walk for the extravagance of her breasts and buttocks" (288). Violent sexual pornography provides stimulus to the "middle flacks," while drugs keep them pacified. Hierarchy determines who lives and how, for the "richies," who live on platforms above the fouled air, hire genetically altered assassins to police conformity and to obtain new organs from the diseased "donors" who live below.

Only Connie, Luciente tells her, can prevent that terrible future from materializing. But after her brief escape from a mental hospital is thwarted, Connie finds herself implanted with a device intended by scientific researchers to control her feelings and behaviour. Seemingly compliant, Connie makes a last desperate attempt to foil this experiment: she poisons the doctors' coffee. This single act both seals her own fate as a lifelong mental patient and derails the experimentation with mind control that would inevitably lead to Gildina's future dystopia.

However ambivalently Piercy regards technology, she does not suggest returning to our pre-industrial past. Rather, she argues that technology must become the servant of

In this future, technology is ... even used to eliminate racism

humanity, not its master. Piercy says she writes fiction so that "these cities of the past and the future and the never-was can...help us to grasp our own experiences in our cities. A future we long for can draw us into activity that might help it happen. A future we fear can galvanize us to prevent it ("The City as Battleground: The Novelist as Combatant," 163).

Ever optimistic, Piercy believes that Gildina's world, at least, is one we can prevent. It is up to us to take up this challenge and create in the real world the feminist utopias we long for.

The URL for Marge Piercy's home page is <http://www.capecod.net/~tmpiercy/>

References

- Patricia D. Doherty, Marge Piercy: An Annotated Bibliography. 1995.
- Piercy, Marge. "The City as Battleground: The Novelist as Combatant." In *Parti-Coloured Blocks for a Quilt*. Ann Arbor, MI: U. of Michigan Press, 1982. 161-171.
- _____. *Woman on the Edge of Time*. NY: Fawcett Crest, 1976. **WE**



Cameras in the Feminist Classroom

Access or Distraction?

by Bonnie M. Winfield

**"Your teaching was very different
this semester. I didn't feel as
connected to you as in past courses."**

These words created both a challenge to my future teaching and remorse for the lost opportunity to reach past students in the distance-learning programme. The inclusion of the technology for live-interactive distance learning in one of my courses was both an exciting opportunity for first hand experience, and a potential obstacle to my feminist teaching methods. My main purpose for teaching with this technology had been to be a pioneer, to explore new space, to see what the fiber-optic lines could offer me. The purpose of this article is a more complex one: to bring a feminist perspective to the conversation on distance learning technology and to address the trade-offs of using this technology. What did I give up in my classroom in order to use this technology? What did I get in return?

The Setting

My classes are made up of non-traditional students; often of mature ages, heads of households, full-time workers as well as full-time students, and "minorities" in our society (e.g., female, non-white, physically disabled). Both distance education and feminist pedagogies have been developed to meet the needs of such non-traditional students. Together, they can potentially offer a unique space for participatory, reflective learning which is grounded in everyday life experiences and facilitated by an educator/mid-wife.

Can this be accomplished in a classroom with television monitors in the front and back of the room; where one has to wait for the microphone before speaking; where the instructor and students have a delay time in directly relating to students through condensed video technology or electronic mail? Or, is distance learning technology only appropriate for courses which use a more traditional lecture style and are less interactive?

An Ounce of Prevention

Some say an ounce of prevention is worth a pound of cure. For many aspects of this course this was certainly true. While planning my foray into distance learning, I was influenced by Ellen Cronan Rose's study on distance education.* The following three suggestions she offered have been very useful.

1. Follow Your Own Best Advice (Not the Experts)

As Rose suggests, I too, initially "let awe of the technology dictate my pedagogical practice...and slavishly followed the advice of the experts." I used the techniques from a "Teaching-on-Television" workshop to develop extensive lesson plans and Powerpoint presentations. I had never done this before, but instead had used the problem-posing pedagogy in which information and questions arise from the discussions in the class. Rose's article alerted me to how I was "constructing" the knowledge, not allowing the students to participate in that construction. So I dropped the structure well before the first day of class, and allowed the course to happen in a more feminist manner.

The inclusion of the technology for ... distance learning ... (was) a potential obstacle to my feminist teaching.

2. Bridge the Gaps

About the third week, I obtained two school vans to transport the students from the home site to a town located half way between the two sites. The students from the distance site agreed to meet us there for dinner and socializing. I purchased a throw-away camera and had students take pictures of each other and the larger group. This was highly successful in bridging the gap between the students and helped to build a class community. From then on students referred to each other by name at both sites and referred to events that had happened on that outing.

3. Use Alternative Forms of Group Interaction

With the help of the computer center on campus I formed an e mail listserv to post questions, comments, recommended readings and messages I had received on other listservs. The Electronic Study Group became very useful for me to keep in touch with the students from the distance site. I knew there was a sense of community when students who received the ESG postings began to make copies for their classmates who did not use the technology.

Technological Trade-Offs and the Access Compromise

The most important trade-off was that of feeling truly connected to the students and their process of learning. I was unable to be truly present to the human processes in the classroom while also having to work the cameras and worry about the technical connections before, during, and after class. I believe this was a trade-off not just for me but also for the students, since my attention and energy were compromised. There was knowledge not transferred, questions not asked, answers not given. This transferral, of course, is a two-way street in a feminist classroom. Not only did the students not receive from me, but I did not receive from the students. This, I feel, is a great loss.

Although access was not the main objective for me during this experience, it is a prime objective for distance education. I could not have obtained my undergraduate degree without a distance education program. Thousands of women who are otherwise denied the opportunity can gain an education, resulting in both knowledge and a certificate, through distance learning. Indeed, Rose's women's studies course could not have been offered at the distance site without this technology.

What we trade for accessibility is the most critical question today. Do we lose our local classrooms in the future? Do we give up traditional education? Do we compromise interaction between students and faculty, as I did? These questions must be seriously discussed in public and critically analysed in future research if cameras are ever to be more than a distraction in the feminist classroom. **WB**

*Rose, Ellen Cronan. 1995. "This Class Meets in Cyberspace": Women's Studies via Distance Education" *Feminist Teacher*, 9 (2) 53-60.

Cyberspace: A New

Environment for Women

by **Susan
Myburgh**

The topic of women and technology is usually addressed from one of three major standpoints —

technological determinism; the Social Construction of Technology (SCOT); or eco-feminism or essentialism.

In general, the common thread that runs through each of these is that technology is not neutral and that it has a role to play in disadvantaging certain sectors of the population, usually women. Technology seems to represent male characteristics which are negative, intrusive, violent or destructive. I believe that a new and different paradigm should be developed in the case of the Internet, which is unlike any technology that has been used before, and indeed, somehow goes beyond being a technology and becomes a cultural component not unlike language.

Contextualization

The Internet is an object of fascination because, given its history, it is believed to be the epitome of the rationalist, empiricist, scientific and masculinist mode of thought which had its origins in the seventeenth century. This mode of thinking appears to interpret reality in ways which are, if not hostile, at least unsympathetic to women. The rationalist worldview exteriorises and measures human experience.

"Things" must not only be measured, but named, labelled, and placed in a hierarchical relationship to other "things."

Categorising objects, in order to determine their importance, will automatically demonstrate a certain world view, or grand narrative. It is typical of a grand narrative to be exclusive. Melville Dewey's theory is a well-known example of this outlook. His world is divided into ten (and is therefore finite). Each of these categories is further divided into ten subcategories, and so on (hence the Dewey Decimal System). Every thought, object, discipline, is then made to fit into one or other of these categories. By definition, they



cannot fit into more than one category. And, typically, there are not enough categories for the things.

This is the very nature of binary information. It creates exclusive, linear, and hierarchical structures which are at once imperialistic and hegemonic and inflexible. It cannot include new things. Other things are other. By gender exemplification, women are not men, are different, and are, therefore, other.

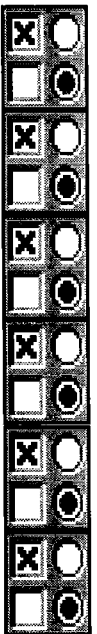
Analysis

Yet, the Internet acts like a bastard. It enjoys an existential freedom that scorns its heritage and disregards its parents. This is because the system deconstructs all information. It is digitised so that information becomes little more than a sequence of bits which are either on or off. To the computer, the meaning of these on and off bits is irrelevant. To us, these bits make meaning only when assembled and reconstituted. Filtered through the matrix, mediated by the machine, all reality becomes patterns of information. Reality becomes indistinguishable from information. Information is reality. We become information when we are on-line. On-line, we are reality. Cyberculture is reliant only on the structures of linguistics and semiotics in order to have meaning.

Even the nature of gender is constructed in a binary fashion — male or female. In real life, we have assumed a dualistic or binary role in tackling gender issues. There is an underlying assumption that half the human race will share similar beliefs and perceptions based on this sole common denominator. This binary acceptance of gender clearly does not exploit the full range of opportunities with which we are already familiar, to a greater or lesser extent, in real life, such as transvestism and transsexuality.

This is the very nature of binary information. It creates exclusive, linear, and hierarchical structures which are at once imperialistic and hegemonic and inflexible.

But this binary (de)construction, in the case of the Internet, allows for the (re)construction of a new, holistic culture. Our reality is not a dichotomous, binary one. It exists *all at once* in many respects, and does not always proceed in an ordered, linear kind of way. Cyberculture recognises this. It challenges us to determine a new paradigm for this type of existence,



which is both old and new, in keeping with its essential character. It is not a universe that is either one thing, or another. It is not a culture that will exist instead of the one we know in the real world; it will exist as well as this reality.

The Internet embodies the age of convergence. The Internet itself came into being because of technological convergence of computers and telecommunications. We experience convergence as we live. The example of lifelong learning is a good one: many people are simultaneously students, parents, grandparents and workers, and therefore have converging, sometimes overlapping, roles. For women in particular, this way of living is not new. But it is now ubiquitous.

Our knowledge framework is converging and diverging simultaneously. If we look at the traditional

field of medicine, we see at once those members of the profession who are specialists in very narrow areas, and simultaneously we can identify an urge towards holism, and treating the *whole* patient.


In cyberspace, binary epistemology is dead. This world is neither absolute, nor relative, but confluent. This is emphasised by the range of contradictions which define this environment. There is a strange dichotomy between the technophilic determinists, on the one hand, and the multivoiced minority discourses, on the other.


The Internet also breaks down other binary divisions, such as the divide between private and public communication. Women have typically exploited technologies which can be described as *private*, for example the telephone, the microwave, the VCR. Men have been seen to master the *public* technologies — cars, space satellites and factory machinery. On the Net, we see a fusion of private

and public domain communication. This form of communication is utterly domesticated, and as available as the fridge. It is also, simultaneously, as public as appearing on television (except that you can script your own programme).

Communicating in cyberspace is a common experience for approximately 100 million people but there is, interestingly, no such place as cyberspace. It exists both internally, in our minds as we sit in front of our computers, and externally, globally, universally, as we converse and interact, sometimes in real time, with others elsewhere. There are no maps, and nor do there need to be. Navigation is all, but we need no tools. There is no threat if we get lost.

Cyberspace is simultaneously nowhere and somewhere. It is both here, where we are, and there, where others are doing

 WWW.WIRE.COM/
 Women's Wire Guide: A new site launched by Women's Wire and Yahoo! completely devoted to information of interest to women.

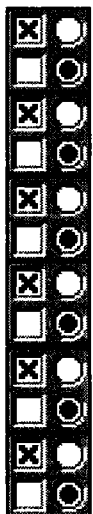
 WWW.IFWOMEN.ORG/WWW.IFWOMEN.ORG/
 The Internet for Women Web Site: The companion to the book by Rye Senjen & Jane Guthrey, Spinfex Press, 1996. It contains updates on web sites, mailing lists and resources, as well as Senjen's and Guthrey's favorite links. It's also a good place to learn about the latest technology and to read about the exploits of women in cyberspace.

and saying things. It takes us both inside ourselves, as we explore new ways of expressing our personalities, and out there, as we communicate with people that we would otherwise not know existed.

The grand narrative of hierarchy is seriously challenged. It is impossible to *do* hierarchy in cyberspace. It is therefore extremely difficult, if not impossible, to dominate in cyberspace. While some may fear the emergence of a new form of neo-imperialism from the United States (similar to what has been achieved in mass media), the opposite occurs, simultaneously. We hear the voices of the minorities. We can read Armenian, Gaelic or Bosnian newspapers; we can hear what happened in Beijing as it happened.

Female realities are already multiple and simultaneous. We are unable to articulate all our various interests consecutively in the course of single, linear time. We juggle all our roles and representations simultaneously. It is precisely the facility to assume a fractured identity which is made possible by the Internet that creates new and wonderful opportunities for women. Cyberspace is metaphorical in that it is like the reality in which we commonly exist. It can also create new metaphors, as our experiences, environments, and communities are mediated through technology.

This non-linear, non-hierarchical nature is well suited to women and their modes of discourse, and it expands their abilities and powers dramatically. The other becomes the norm. It is flexible enough to do what we want it to do. Women can construct an environment that is transparent and independent. The Net acts as a shaman, a mediator between the world of spirits and reality. The reality is what we make it mean, whatever has meaning for us.



Using the Net creates a new mechanism for linking with other like-minded individuals which can strengthen voices which might otherwise go unheard. It provides a new safe place that women can go. On-line women present a united front, in a diverse and inclusive kind of way. Now is the chance for us to define what kind of culture we want this to be.

The Net is patriarchal to the extent that the machines have been dominated by pale males for some time, although many women have been involved in inventing, designing and using them. There is not equality in cyberspace to the extent that the majority of users are still male and harassment is not unknown. On the other hand, women can use this tool as they wish - and they clearly do.

However, we should not believe the myth — perpetrated by the greatest technological determinist of them all, Marshall McLuhan — of the Global Village, where all inhabitants of the planet can come together for tribal meetings. The Internet is, in fact, a gathering of an elite. While there is potential to join all citizens of the planet by using the Internet, we must nonetheless acknowledge huge

problems in access. Of the five billion or so people on earth, maybe 100 million have Internet access. This is another paradox of the Net. The question of access and use places a responsibility on the shoulder of cybersisters - they must not only represent themselves as bold; they must also undertake representation of all the millions of women who will never have access to the Web in their lives.

... women can use this tool as they wish — and they clearly do.

The Net is a powerful political tool. Allowing the perpetration and perpetuation of the myth of patriarchy means women can be deprived of a powerful political voice, and even of a livelihood. Women are now in a position where they can own the means of production. In the information age, where information and knowledge are an economic resource, they can create, share, distribute, and use it as they wish. **WE**

Women'space
Summer 1997 Volume 3, No.1

Women's Internet Magazine

Subscribe: One year (4 issues)
Individual: \$18 Can, \$17 US, Overseas \$20 US
Institutions: \$28 Can, \$27 US, Overseas \$30 US
Women'space, RR1 Scotsburn, NS BOK 1R0 Canada

The Women's Internet Conference
Conférence: les femmes et l'Internet

October 18 - 21, 1997
Ottawa, Canada

for women & women's groups engaged in equality work

USING THE INTERNET AS A POWERFUL TOOL FOR EQUALITY
SHARING OUR EXPERIENCE AND KNOWLEDGE

For more information, please contact **Women'space**
RR1 Scotsburn, NS, BOK 1R0
Tel (902) 351-2283 or (902) 351-2444; email:

Same Message



Much has been made of the potential of cyberspace to transform existing relations of domination and subordination.

According to advocates, on-line "chat rooms" make gender, race and ethnicity "disappear" in an endless stream of text, broken only by the pseudonyms chosen by participants. In other words, because there are no physical bodies or names indicating gender, race, or sexual orientation in cyberspace, netizens are said to be subverting the hierarchical, heterosexist, gendered nature of interaction within the patriarchal system of thought. Is the subversion potential of this "gender-less medium" really being taken up by its users?

Unfortunately, not only do women contribute less to on-line conversations than men (Herring, 1995), but preliminary data suggests that the opportunities to subvert are instead being used to further perpetuate gender stereotypes. This includes the assumption of heterosexuality and the denial of space for lesbians and gay men to articulate their own experiences and challenge the heterosexist community.

The following excerpt is from one free, public chat room on the web (for a complete analysis see Silver, 1997), where participants discuss a particular club. In this sample "It's me chi-chi" is the 'handle', or name, of the message sender. The handle is followed by a bracketed tagline that appears every time chi-chi sends a message, and the quotations mark her actual message.

It's me chi-chi (Look it's a she and not a he like everyone thought):

"Mars Bar—Yeah it is. My girlfriend always goes there. I found it sorta boring myself."



by Larissa Silver

Different Medium

Although it is clear that these chat room participants thought chi-chi was a he and not a she, why this assumption was made is not made explicit. It is possible that her use of the word "girlfriend" in the past intersected the heterosexist construction that only men have girlfriends, and so exclusionary gender constructions necessitated her being male. The response she receives suggests this may be so.

Mars Bar (29, Male):

"CHI-CHI i just love girls talking about their 'girlfriends'... (typical male thing ya know)...:)"

Mars Bar further puts the term 'girlfriend' in quotation marks, suggesting chi-chi's use of the word is inappropriate. Whether this is the reason he did so or not, it serves to undermine chi-chi's usage, which may have been intended to subvert the heterosexist connotations of the term girlfriend (only men have girlfriends, only women have boyfriends). He is re-affirming and re-articulating this heterosexist discourse that predetermines gender behaviour according to a patriarchal model.

Mars Bar reduces everything in chi-chi's reply to her apparent sexual orientation, disregarding her discussion as a



whole. He then invokes the stereotypical image of lesbians in much of heterosexual pornography, that of women performing for the visual pleasure of men. Mars Bar acknowledges this invocation with the phrase "typical male thing", and then follows this with a smiley face (a symbol to indicate humour). The smiley face, I believe, serves to suggest that what he is saying, which could be very offensive to chi-chi, is a joke or meant to be taken with humor. Mars Bar is employing the classic patriarchal discourse in which men insult, degrade, or harass women and then claim their actions were meant as a joke. This discursive strategy places women in the position of being verbally attacked or insulted if they protest the offensive behavior ("Can't you take a joke?") or enduring



the behavior in silence. His use of the smiley face also suggests that he is aware of the offensive nature of his statement but feels confident enough in his position of hierarchical male to use it anyway.

If chi-chi were indeed assumed to be a man because she used the word 'girlfriend' in past conversations, her tagline serves to illuminate the heterosexist nature of those who made that assumption. In this way she may be

. . .
opportunities
to subvert
are instead
being used to
further
perpetuate
gender
stereotypes.

discourses of female and male sexualities and identities. Mars Bar does not repeat the binary opposition of heterosexual/homosexual, but instead appropriates chi-chi's resistance into a heterosexual/homosexual/heterosexual link, where lesbian sexuality exists only for the heterosexual voyeur.

This is a solitary example, of course, and the research is preliminary. Still, this would suggest that the internet is not breaking down — subverting — standard patriarchal notions of gender categories and behaviours. This new medium is simply applying the same narrow and oppressive message.

attempting to use the chat room as a tool to encourage some participants to confront their assumed knowledge about who calls whom "girlfriend". The tagline may also encourage those who maintain exclusionary politics to re-articulate their discourses about sexual identities, which may then give chi-chi a further opportunity to confront this discourse with her own.

Mars Bar's response marginalizes chi-chi's discourse and re-articulates it within the oppressive discourse of the patriarchal norm. By ignoring her tagline and the rest of the content of her message, he reduces chi-chi to her sexual identity and then absorbs that sexuality back into the heterosexist model by invoking the image of lesbian relationships represented in heterosexual pornography. This serves to circumvent chi-chi's attempt to proliferate the



Canadian Journal of Women and the Law Revue Femmes et Droit

Canada's only legal journal providing in-depth analysis of legal issues concerning women

- Bilingual, multi-disciplinary approach
- 200-300 pages per issue
- Published theme issues include: *Women and Reproduction, Women and Custody, Women and Crime, Women and Work, The Continuing Challenge of Equality, Legal Theory and Legal Practice, Racism...Talking Out, Women, Poverty and the State, Women, the Family and the State.*
Upcoming: *Lesbianism, Feminism and Law.*

SUBSCRIPTION RATES PER VOLUME (2 ISSUES)

- \$69.55 Institutions (GST included)
- \$42.80 Individuals (GST included)
- \$32.10 National Association of Women and the Law member discount (GST included)
- \$21.40 Student/Low Income (GST included)
- \$26.75 Single issue (GST included)

(Outside Canada: U.S.A. add \$10.00, International \$36.00)

For further information contact CJWL, P.O. Box 450, Station A 575 King Edward Avenue, Ottawa, Ontario K1N 6N5 (613) 564-5617 FAX (613) 564-7190

GST Number R125513176

References

Herring, Susan et al. "This Discussion is Going Too Far!": Male Resistance to Female Participation on the Internet", *Gender Articulated: Language and the Socially Constructed Self*. Kira Hall and Mary Bucholtz, eds. New York; Routledge; 1995.

Silver, Larissa. "Bodies That Virtually Matter". M.A. Major Research Paper, York University. 1997. **WE**



WEfocus

by Fredrica Mintz



"Cyberfemmes are everywhere,
but cyberfeminists are few
and far between."



Nancy PATERSON

Media artist and self-described 'cyberfeminist' Nancy Paterson uses technology to navigate the roles that various institutions play in vying for control of women's bodies.

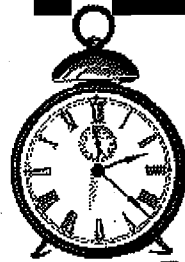
In **STOCK MARKET SKIRT**, a black velvet and blue tafetta dress is displayed on a dressmaker's mannequin or 'Judy', hard-wired to a computer analyzing stock pricing from an on-line market quote service. The dress responds with the rise and fall of its hemline as the price of the stock changes. The piece references women's fashion, and by extension, women's bodies, as commodified by a seemingly unrelated source. This piece comments on the global techno-economy as an omnipotent force where women have had little input and yet are still implicated.



EX(OR)CISER uses humour in an interactive installation where a vibrating belt massager calls the viewer to strap herself in and attempt to dance. She is given the promise of all the quick and easy ways to reduce and beautify as promulgated by 1950s style advertisements. Verbal instructions detailing the required footwork for the Rhumba play while a television monitor intersperses

images of nuclear generating plants and clips of people dancing the Rhumba, performing personal hygiene, and looking in the mirror. Here, Paterson refers to the narcissism and etiquette standardized by the rules of a highly structured social dance and, when literally interpreted, the power generated by those exercising and ex(or)cising control in our compulsive consumer society. **WE**

Saving TIME



Rural Honduran Women Working for Change

The day that I was there, like most other days, Doña Ana got up around 5:00 a.m. She ground the corn which had been cooked the day before and made tortillas for breakfast. Around 11:00, having completed a variety of other tasks — including housework, childcare and water fetching — she had to think of starting her next batch of tortillas. She dekerneled the corn, washed it and put it on to cook. After lunch, she dekerneled more corn, but this time it was to make pinol, a drink of milk and cornflower. She washed the dry corn, toasted it, and then went back to her manual grinder to mill flour. In the late afternoon, she once again returned to the grinder to make tortillas for dinner.

Doña Ana also spent a great deal of time tending to the seven children she raises (she had fourteen altogether, but two have died and the others have left home); one of her sons became paralysed as a result of meningitis and requires extra care. Furthermore, the day I was there, she was babysitting a little neighbour. Despite all the help provided by her children, she had virtually no time free of tasks.

by
**Hélène
Grégoire**

This condensed case study came out of a gender analysis conducted in Northern Honduras in 1995. The outcome of this research included policy recommendations to better incorporate the gender dimension into the International Development Research Centre-funded Project for Participatory Research in Central America (IPCA). IPCA is a project seeking to build up the research capacity of small hillside farmers using a methodology which involves them in the design and evaluation of appropriate agricultural technologies.

Contrary to the belief that women constitute an "under-used asset for development" — as put forward by the proponents of the "efficiency approach" to Women and Development (Ostergaard (ed.), 1992: 174) — I would argue that women in rural Honduras are already playing an essential role in the development of their community: all of their reproductive work forms the basis of production and is essential to sustain the family for the next agricultural cycle and future generations. It is clear that the situation and needs of women have to be taken into consideration if IPCA is to assist rural families in their search for technological alternatives to improve their living conditions.

If women are to participate in the IPCA Project and benefit from it, it will thus be necessary to develop flexible programmes to fit their needs. A number of recommendations arose out of my research, one of which presented the development of labour-saving technology for and by women as a pressing issue, given the amount of time spent on such repetitive tasks as tortilla-making. Two examples of such technology are community mills and improved stoves.

Some women in Doña Ana's community have expressed the need for a generator-powered mill as their hamlet does not have electricity. In another community where such a device is already operating under private ownership, women consider it worth the thirty cents it costs each of them to grind their daily corn. They have affirmed that they save time and energy as grinding corn by hand is physically demanding, although not all women were satisfied with the quality of the grinding and thus fed the dough through their manual grinders again after it had been milled once. In most cases, daughters went to the mill before school in the morning and seemed to enjoy the walk with their neighbours. In communities where women have few opportunities to get together, a community mill may thus constitute a beneficial meeting place for them, while having negligible consequences for the environment (i.e. low-level noise and emission). It could potentially be cooperatively owned and operated if women pooled resources through their usual means of fundraising (raffles, fiestas, and bake-sales).

Lorena stoves were designed to reduce firewood consumption, save collecting and cooking time and diminish respiratory problems common among women and children. They have also been promoted in rural Central America. They are more environmentally friendly and make the cooking — which is strenuous due to the heat and smoke — considerably more bearable than it is on wood-fired stoves. The Lorena stoves installed by some projects, however, have been criticized by women who pointed out that they could not cook many pots at the same time. In addition, low-income communities such as Doña Ana's present another



... women in rural Honduras are already playing an essential role in the development of their community.

impediment. Families who cannot afford silos store their grains in a loft above their kitchen where the smoke from the stove dries them and preserves them. Some women have commented that the smoke from the Lorena stoves appears to get "stuck" in the stove-pipe. Directing this smoke outside of the house through a pipe could be perceived as wasteful, since that smoke would no longer be available to dry the grains. I thus fear that men, who are in control of agriculture in the area, would resist such a project. The stoves, however, could be adapted to women's needs with technical assistance from the project as well as minor capital investment by households.

Raising men's awareness as to why women need to be freed from some of their chores may also be necessary. Women could work as a team to set criteria to assess the proposed technology and experiment with its design. The project, however, would have to ensure that meetings are held at a time and place convenient for the participants, whose free time and mobility are very restricted. To fit better into IPCA's agricultural mandate, experiments with stoves could perhaps be conducted jointly with experiments on grain storage or more efficient types of firewood (which would also involve men).

Alleviating women's workload through the introduction of labour-saving technology may give them more time to get involved in income-generating activities such as small livestock raising, vegetable growing, or the selling of some processes products and



<http://www.ids.ac.uk/eldis/gender/gender.html>

Gender and Development: Electronic resources, bibliographies and course descriptions hosted by the British Library for Development Studies' Electronic Development and Environment Information System.



<http://www.iisd.ca/linkages/4wcw/>

Fourth World Conference on Women: This site contains news, background information and links to other Web sites covering the recently concluded Fourth World Conference on Women, 4-15 September 1995, Beijing, China.

This page is maintained by the International Institute for Sustainable Development who provide an electronic clearing-house of information on past and upcoming international meetings related to environment and development.



<http://www.synapse.net/~focusint/>

Women In Development NETwork (WIDNET): WIDNET provides information on the following: Women's resource organizations in the field of development, Connections and references on women related resources, Beijing Conference, Directory of Electronic Connections to Women Organizations, Database and Statistics on Themes Relating to Women, and WIDNET magazines.

services. By participating in the development of sustainable technologies, however, it is important that women do not become tools for the good of others; rather, they should be encouraged to achieve self-reliance and autonomy by making decisions in accordance with their own aspirations.

References

- Humphries, S. Migrants, Dairy Farmers and Agricultural Land Use in the Human, Tropical Hillside of Northern Honduras. Internal Report. CIAT: Tegucigalpa, Honduras, 1996
- Ostergaard, L. (ed.) Gender and Development: A Practical Guide. Routledge: London, 1992. **WE**

Subscribe to *Connections* Newsletter



"Women are demanding our basic right to safe clean air, food, water, and soil."

736 Bathurst Street, Toronto. ON
M5S 2R4
Phone: (416) 516-2600
Fax: (416) 531-6214 (WEED)
weed @ web.net
<http://www.web.net/~weed>

Published by the Women's Network on Health & The Environment

Opening the Kitchen Door



Household Technology & Research

by Jacintha L.M. van Beveren

The cultural impact of technology in the home is systematically underexplored by social and political researchers. In technology research, individuals are almost always seen as cognitive-rational people, mainly consumers. This means that the future user is not approached as a human being with emotional desires and a personal life style.

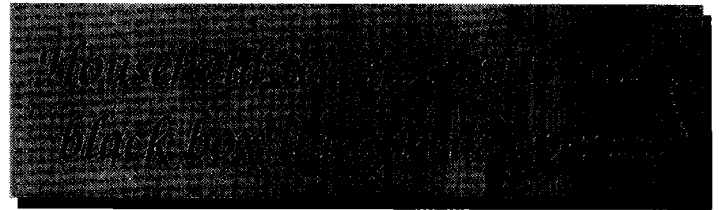
This research attitude is best seen in experiments regarding household technologies. These are usually structured by technical experts. This means that less technical people will have little interest in the experiments, with the result being that they will not have the opportunity to make their needs for technical assistance known (see also Berg 1994 and Van Beveren 1995). The emphasis of research concerning technology is mainly on the rationalization and the social organization of its production (Berting, 1992).

Household technology is still a black box that needs opening. Users of technology are consumers, not seen as co-constructors. Usage patterns are totally out of sight. Due to the long lasting division of labor in the home, the problem of household technology is mainly the problem of women (Meyer and Schulze 1994). Women in general are seen as less technically oriented, not because they are, but because important parts of their life spheres are not represented in many research projects. Social researchers have the opportunity to stress equal attention for all technical spheres. Instead, researchers simply overlook the housework field so important for women. Often, women have no possibility to make their wishes known.

Only less technically structured experiments and open research questions about what people desire as technology in everyday life will show the life spheres that are usually less visible (see for an example Van Beveren 1997). Exciting experiments only show the desires of men, the well-educated, and the young. They are the technically competent and as such become the target of public information. They are also the early adopters of all kinds of technology in the home and are likely to be less consciously concerned with routine-housework. There is a real fear that the focus on technology in the home will be on non-housework technol-

ogy, and/or on design and construction of the house, instead of on internal functioning and maintenance.

At this moment the kitchen door regarding housework and its related technologies is not even ajar. Social researchers have ignored it and leave it closed. The result is that the social and cultural consequences of technological changes in the domain of the home are not explored and remain invisible.



References

- Berg, Anne-Jorunn, 'A gendered socio-technical construction: The smart house' in: Cockburn et al. eds., *Bringing Technology Home. Gender and Technology in a Changing Europe*, Buckingham: Open University Press, 1994.
- Berting, J. *De technologische factor. Een sociaal-wetenschappelijke analyse (The technological factor. A social-scientific analysis)*. De Lier: ABC, 1992.
- Beveren, Jacintha van, 'Techniek thuis: de voordeur op een kier' (technology at home: the front door ajar) in: Jacintha van Beveren en Peter van der Parre (red.) *In werkelijkheid is het anders. Sociologische opstellen voor Jan Berting*. Amsterdam: SISWO-publikatie, 1995. 389:137-153
- Beveren, Jacintha van, *Het toekomstige wonen: te mooi om waar te zijn (Living in the future: Too good to be true)* in: Leo d'Anjou e.a., ed. *De tirannie van het beeld (The tyranny of the image)*, Amsterdam, 1997.
- Meyer, Sibylle, Eva Schulze, *Alles automatisch - Technikfolgen für Familien. Langsschnittanalysen und zukünftige Entwicklung (Everything automatic - Technical consequences for the family. Past analyses and future possibilities)* Berlin, 1994. **WE**

WOMEN & WIRES



Feminist
Connections
and the
Politics of
Cyberspace

by Maureen Engel and Caitlin Fisher

Whenever the topic of women and information technologies arises, neither of us can resist telling the story of our friend Donna. She was a thirty-year-old single mother of three young children, aged six, three and one, who was dependent on social assistance when she was given a beat up old XT, with modem, as a gift. Her transformation was almost instant. She registered for a Freenet account in Ottawa and began spending every spare moment on-line. She discovered an entire social world which she could access from home, while the children napped or after they had gone to bed. Donna made friends, joined discussion groups, had cybersex and was nominated by one of her peers as a net-legend. **She now organizes real-life get-togethers for net-friends.**

She also started the National Capital Freenet's Pagan discussion group and is now its information provider, responsible for setting up the group's menus and links to other sites. She's learning UNIX programming, too, has run for the Board of Directors of the National Capital Freenet and is now looking into doing a university degree electronically.

Donna embodies much of the positive potential of the net for women, particularly women who are socially isolated for various reasons. She discovered a space where she could **find social, emotional, intellectual and sexual stimulation** — without leaving her kids, without paying a babysitter, and without explaining to anyone where she had been or what she had been doing.

But women's relationships with information technologies are not, of course, uniformly positive. What follows touches upon the surface of some of the areas we are currently thinking about in relation to one area of information technology — the Internet. Ours is a multi-voiced text spoken by two feminist net addicts, designed to highlight only one or two of the many pleasures and dangers of some of the cyberspaces opening up for some women. Women's experiences with the net do suggest opportunities to tell new stories, but these exist alongside some very familiar master narratives. We begin our exploration with hypertext and the World Wide Web, visit some not-so-feminist spaces through the story of a net legend named Doctress Neutopia, and end with a cautionary tale.

Hypertexts

"The daughter's circular pathway through oedipal narrative has long constituted a feminist quest myth. ... Many of the values within feminist experimental practice are coincidentally buried within hypertextual environments...not only this, but the apparent circularity and non-hierarchical structure of

hypertext accommodates some forms of non-Western storytelling" (Sara Diamond, 14)*

The Web, a distributed hypermedia system and the fastest growing segment of the Internet, is hypertextual. Hypertext links are a bit like nested electronic footnotes — but instead of simply following the note to the bottom of a printed page, the electronic 'link' often moves the reader off the 'page' in question entirely — suggesting another screen, other links... and other links... and more links. **Not surprisingly, then, it has also been described as a kind of weaving,** one which allows for "infinite variation in colour, pattern and material; it is the loom that structures the text-ile." (Burnett, unpag.) The technological loom of hypertext, and the experience of 'weaving' perspectives, is a potentially ideal site for feminist explorations. One author's characterization of the hypertext web as "a many-voiced text that is large enough to contain and admit its own contradictions" (Douglas, unpag.) could well, for example, characterize the aspirations some of us have for feminist theories. Because **hypertext necessarily admits a plurality of meanings,** its hierarchies are contingent and local and in hypertextual spaces, then, feminist texts presumably have difficulty relegating some women to the margins. Some theorists go so far as to say that hypertexts take *no part* in the marginalization of certain voices or information: "Consider the debate currently surrounding the literary canon, for instance" writes Jeffrey Young, "this problem of which works to include is virtually a non-issue in hypertextual terms, since the ideal is a database of all materials that the reader could navigate through on their own." Hypertexts, then, may be "the genuine post-modern text rejecting the objective paradigm of reality as the great 'either/or' and embracing, instead, the 'and/and/and'." (Douglas, unpag.)

At the same time, to the extent hypertexts like the World Wide Web do concretize postmodern theories, we would do well to keep in mind the cautions feminist critics of postmodernism have offered for some time: **feminism relies on intervention as a central strategy** and, in hypertext environments, a critical feminist reading is, necessarily, just one among many subject positions. In other words, if the narratives are always shifting and no story or reading is privileged over any other, on what grounds, and to what effect, can we advance feminist arguments? One critic sums it up this way: "the introduction of non-canonical texts and authors into the canon disrupts the foundations of the canon altogether. In contrast, hypertextual design encourages such disruptive activity while rendering it insignificant". (Burnett, unpag.)

Of course, the more 'modernist' space of the **listserv** — an e-mail-based asynchronous discussion — **is not necessarily a more productive arena for feminist dissent.** To illustrate: 'Doctress Neutopia' says she was finishing her PhD and excited about cyberspace the year she achieved infamous net-legend status, in part owing to widely disseminated e-texts in which she declared there was a war being waged against the feminist voice — in particular, her feminist voice — in cyberspace. The Doctress, a vocal feminist, subscribed to a number of electronic theme-based mailing lists, wrote prolifically on parenthood, education, addiction, violence, class, gender oppression and racism. While the lists weren't explicitly feminist, she made careful cases for the relevance of her concerns to the topics at hand. The responses to her interventions were often condescending and vicious — and performed her argument depressingly well. Her psychological health was discussed openly on a variety of lists. 'Kind' men encouraged her to seek help, find God, fit in, get lost. Ultimately she received word from the list manager of a group to which she had been contributing for many months informing her that not only would any new contributions be screened out through a **'kill' filter** (a programme which deletes e-mail messages from a targeted e-mail address) but that all her previous posts had been deleted from the archive, too (an electronic archive functions in much the same way as a print archive). "This action was so malicious," she writes, "because I know this is what has happened to feminist thought throughout recorded history. Women who resist the patriarchy are eliminated from the collective memory."

But a neutopian soulmate — perhaps even the Doctress herself? — arose from the flames to carve out a corner of cyberspace in the form of a network newsgroup. The introductory text read, in part:

"Alt.fan.dirty-whores is a group of or pertaining to dirty whores led by the first lady of dirty whores, Kathy Jo Kramer. Jo's talent is rhetorical — it reaches people's hearts, but it is strangely manipulative in that people can't seem to help but to read her. **Killfile or not, the discussions concerning her behaviour were as hyperbolic as her writing,** consuming whatever group she was in".

"This group was founded at the request of the coolest people on the Internet who were, dare I say, empowered by her posts. So here, free from ... (having to) defend her presence on the groups, she will be free to write about the serious topics that concern her. Here is her own little corner of the net, where all of us dirty whores who have been laughed at and picked on all our lives can come here to love ourselves."

Alt.fan.dirty-whores, welcome message

Women can, and do, of course, resist. But is alt.fan.dirty-whores merely an ineffectual blip in the postmodern hypertext of the Web? Two years after the above message was sent all traces of Kathy Jo Kramer's initial intent for this newsgroup seems to have disappeared (newsgroups don't usually archive more than a month's worth of messages), along with the irony: alt.fan.dirty-whores is now just another message board advertising hot and horny pix 'of girls girls girls'.

So (how) does it matter that women are creating their own spaces on the Net? Electronic forum and chat spaces can, occasionally, be collaborative and creative; can occasionally be about making collective memories and not only about the quick silencing of women's voices. But while we like to imagine The Doctress as moving from forum to forum on the net, not all dissenting voices are nomadic. Thousands upon thousands of women's messages are archived — in private computers like ours as the reader hits the 'save' button, and in more public forums. And thousands upon thousands of women are creating their own small hypertexts within the larger hypertext of the Internet in the form of home pages, whose texts and addresses are not easily erased or written over by others.

It's likely no surprise that women walk fine lines between finding new pleasures, uniquely available as a result of technological advances, and **finding themselves erased from electronic histories**, if they find themselves on the net at all; between new opportunities for communication and leisure and added work. Some days, when the process of checking our e-mail and checking in with e-friends takes, back-to-back, 6 hours, we wonder, only partly joking, if having a computer is a good thing — between us, we subscribe to the women's studies list, the society for women in philosophy list, c-theory, the queer-studies list, the lesbian-academics list, the future-work list, the cybermind list, and, for a brief, brave two weeks, the 150 messages a day sappho list. We lurk, we engage in collaborative work with friends we've never met in the flesh, we archive — though not all of these conversations need to be recorded to have been valuable. As one person wrote on-line: "to insist on a separation between a real life and a virtual one is to deny the reality of our existence here, thereby making the net invalid as a room for 'real' human interaction." (Marius)

Yes, real interaction, positive, negative, and never that simple: from Donna to Doctress Neutopia, sometimes facilitated, sometimes hindered, by the technology itself. But we would be remiss if we did not tell you another side of Donna's story. She became so engrossed in net culture that one day her four year old daughter, scissors in hand, walked up to the computer while Donna was on-line and, unceremoniously, cut the cord. **WB**

*All references are to on-line sources.



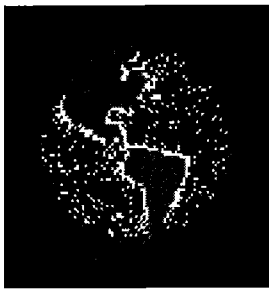
Changing

the World

Electronically

by Margaretta Weir

The author provides an exclusive report on the findings of the APC Women's Program survey about how computer communications are assisting the women's movement to enhance global networks.



The Association for Progressive Communications Women's Networking Support Program (or APC Women's Program) began in 1993 as a response to the needs and demands from within the women's movement for improved communications. Two factors were instrumental in the pro-

gram's beginning: the United Nations Fourth World Conference on Women (UNWCW) and the rapid development of international communication technologies. How were women to redress the inequalities of access to these technologies, and how could they be harnessed in such a way to facilitate women's work as they lobbied, advocated, organized and strategized for the UNWCW process and beyond? To address these concerns, a global initiative was developed to facilitate access and use of computer communications for women organizing around the UNWCW.

Last Fall, an international team of researchers involved with the APC Women's Program surveyed over 700 women's groups to determine the progress made in women's global networking. The main research tool used to collect the data was an electronic mail (e mail) questionnaire which combined both open-ended and structured questions on selected electronic networking topics. The survey was based on the premise that women around the world face similar situations with regard to the inequities of access to technologies, and that for women to effectively incorporate electronic tools into their day-to-day activities they need to understand the potentialities, constraints and pitfalls of computer networking. The general findings, highlighted below, support this premise, reinforce the many barriers women face, and suggest that despite the obstacles, women are making some great strides in adopting electronic communications tools that are benefiting a growing global movement. The findings also reveal that the support provided by pro-active initiatives is critical in this process.

Increased Participation and Use

147 responses from 36 countries were received, representing a diversity of groups and individuals including Non-Governmental Organizations, grassroots groups, women's centres, international agencies, funding agencies and foundations etc... working on a wide range of issues of concern to women, including health, justice, violence, youth, environment, development, and more. As Table 1 suggests, increased communication and sharing of knowledge from women in the South and Eastern Europe has broadened the scope of on-line participation.

For many women who knew very little about computer communications before the APC Women's Program began, tools such as e mail have become a routine part of day-to-day communications. More and more women are using other

tools such as conferencing, mailing lists and Web sites on a regular basis, too. Women in the South and in Eastern Europe focus on communication tools such as e mail, conferencing and Listservs, while women in the North (and in some instances Latin America), show an increased use of Internet tools, such as search engines and the World Wide Web (WWW). This regional pattern of tool usage seems to be associated with access issues, such as infrastructure and/or cost.

Benefits

Many women from the survey sponsor on-line resources such as Web sites, databases, mailing lists or conferences, and, by doing so, make a significant contribution to building women's on-line resources. For those who do not, time, resources or organizational priorities are the major obstacles to such involvement. Many "connected" women (particularly in the South) act as bridges to "unconnected" local groups by re-packaging information they find on-line and sharing it through print, fax, telephone, radio, theatre, etc.

Most respondents feel their use of electronic tools contributes positively towards achieving their goals and cite examples such as: cost effectiveness, ease of communication, empowerment, reliability, increasing productivity, balancing information flows, broadening perspectives, and streamlining collaborations.

Balancing Negatives and Positives

Although more positive examples of on-line experiences are cited than negative ones, the latter reinforce the many challenges women face in the adoption of communication technologies and help to clarify some of the pitfalls associated with its use. Some negative aspects include: limited accessibility, high time demands, information overload, language constraints, lack of privacy and security, potential fear of backlash or harassment, privacy concerns, skill deficiencies, and alienation. Women in the South highlight a number of negative experiences associated with the limitations of an e mail only account (not having access to remote databases or Internet tools), limited infrastructure, and the

Table 1

Survey responses were received from 36 countries including: Africa (Cameroon, Kenya, Nigeria, Senegal, Tanzania, Zimbabwe); Asia/Pacific (Australia, India, Japan, Malaysia, Philippines); Eastern Europe/Russia (Croatia, Russia, Ukraine); Europe (Austria, Belgium, England, France, Ireland, Italy, Netherlands, Switzerland); Latin America (Argentina, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Peru, Uruguay); Middle East and North Africa (Egypt, Jordan, Morocco); North America (Canada and the United States).

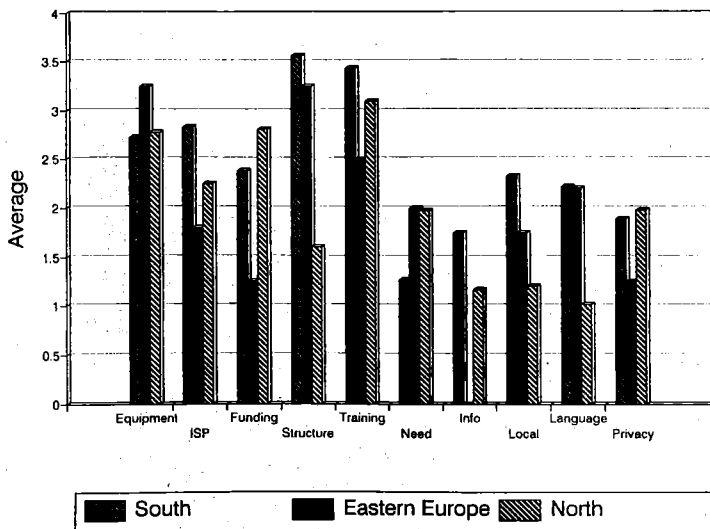
high costs of data transmission (many charge by the message).

There are many examples of women who are already on-line 'experts' making innovative use of the electronic tools and inspiring others to do the same. Despite this, many still struggle to apply the technology in their work. The initiative taken by the APC Women's Program to develop a global database of women's on-line resources, training programs and support materials is seen as a positive step in sharing strategies more effectively.

Barriers: North and South Variances

Despite the signs of progress, women everywhere continue to experience barriers, with lack of training and the cost of equipment ranking highest. As the bar graph (below) illustrates, specific barriers vary regionally, however. Women in the South and Eastern Europe/Russia, for example, list poor infrastructure as the major barrier, while women in the North list training. Within regions there are variations too. For example, the dominance of the English language, privacy and security issues, the high cost of connection, and difficulty in

Table 2
Barriers: North and South Variances



getting a phone line or repair personnel are specific barriers for women in Latin America, Francophone and Sub-Sahara Africa and Russia. Another important barrier to emerge is lack of time and human resources. As one woman wrote: "in some ways the Internet is a tool for those with lives of leisure."

Although questions about policy were not specifically asked, policy issues are raised as a critical area. The level of an organization's commitment to information technology clearly contributes to a woman's ease and access to electronic networking.

Gender Differences

Opinions on the differences between women and men in electronic communications range from "women are as capable, eager and effective as men" to "women have less access to electronic communications and less ownership of equipment ... they need more initial encouragement and training at the beginning and are less active in learning the new technologies." Other opinions acknowledge the history and universality of women's subordination, recognize the ways in which both 'masculinity' and 'femininity' are socially constructed, or emphasize the class, race and cultural differences between individuals and groups.



<http://scholar2.lib.vt.edu/spec/iawa/iawa.htm>

The International Archive of Women in Architecture. This Collection documents the history of women's involvement in architecture by collecting, preserving, storing, and making available to researchers the professional papers of women architects, landscape architects, designers, architectural historians and critics, and urban planners, and the records of women's architectural organizations, from around the world. The archive was established in 1985 as a joint program of the College of Architecture and Urban Studies and the University Libraries at Virginia Polytechnic Institute and State University, or Virginia Tech.



<http://palladio.arch.virginia.edu/~plan303/>

Healthy Cities, Urban Theory and Design: The Power of Jane Jacobs: A Web site dedicated to the work of Jane Jacobs. A class research project at the University of Virginia.

The Importance of Training

The importance of training appears over and over again in the responses. Over half the respondents had received some kind of formal training to get up and running on-line. Other women are self-taught, rely on computer buddies to guide them, or learn "on the job."

Cost, time restrictions, and lack of gender and/or culturally sensitive approaches are the main obstacles to training. For women in the Middle East, North and Sub-Saharan Africa and Latin America availability of training is a major factor.

Anticipated training needs include basic skills (getting connected, using e mail, etc.), learning information facilitation techniques, creating and maintaining Web sites, bulletin boards, and mailing lists, HTML design and programming, and exploring other Internet tools. Technical training for

trouble-shooting is a priority for many women in the South, too.

Common suggestions for improving training include offering gender-specific and free training, and linking that training with ongoing user support and local mentoring. Developing training programs in consultation with the women's movement, as well as using critical thinking skills and action-oriented techniques are also suggested.

The Need for More and Better Support Materials

Over half the respondents use support materials, such as computer manuals and 'how-to' books. Women in Sub-Saharan Africa, Asia, Canada, Eastern Europe, Russia and Latin America show the highest rate of use. Women in

North Africa, the Middle East, Francophone Africa and some Latin American countries often have no access to support materials. Problems with existing material include: a North American bias, high cost, high use of technical jargon, gender or cultural insensitivity, and obsolescence.

Funding Needs and Sources

Although funding needs vary regionally, training, Web sites and necessary hardware and software are evenly anticipated. Funding to support recurring charges for internet or e mail accounts follow in importance. Some specific funding needs identified range from appropriate technology (radio modems, solar energy, security, etc.) to long term support for women's networking.



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

Women's Environmental Development Organization (WEDO): WEDO was founded in 1990 to put analytic and activist clout behind its two guiding themes: Women must have an equal say in decision-making on environment, development, population, reproductive rights, technology, political participation and other issues affecting their lives, their families and the future of the planet, and healthy communities make a healthy planet. WEDO has a global information and advocacy network of more than 18,000, predominantly women who work with this international nonprofit organization dedicated to improving the social, economic, and political status of women.



<http://www.one.world.org/womankind/index.html>

Womankind Worldwide: A development agency whose mission is to assist women in developing countries for their efforts to overcome poverty, want and discrimination.



listserv@lsv.uky.edu

GEOGFEM: Feminism in Geography — This list is open to the discussion of all topics related to gender issues in geography, ranging from theoretical and empirical issues to book reviews, calls for papers, job openings and information on conferences. To subscribe to GEOGFEM, send an e-mail message to listserv@lsv.uky.edu in the message section type: Subscribe GEOGFEM Firstname Lastname

Canada, Eastern Europe, Russia, Africa, the Middle East, and Western Europe show high rates of applications to funders such as governments, international agencies, foundations and corporations. Examples range from informal requests for equipment to major long term programming involving several countries or stakeholders. Only a few applications have been successful in securing funds — many are pending. Lack of knowledge about funding sources and procedures is common.

The APC Women's Program: Useful and Empowering

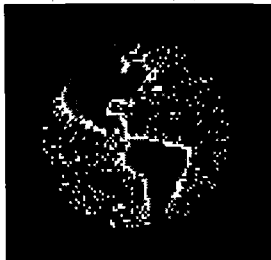
Many of the respondents participate in some aspect of the APC Women's Program and find their experience both useful and empowering because it provides professional and personal development, increased access to information, and a greater sense of women's global solidarity.

Opinions on what the future role of the APC Women's Program should be in supporting women's global networking vary from providing an on-line venue for women's social change work, to developing training and support programs, to providing research and development, to mobilizing funds. Local, regional, and global programming are emphasized, as is focusing efforts on women in the South.

Conclusions

The APC is trying to construct a truly alternative information infrastructure for the challenges of global networking that lie ahead. Through initiatives such as the Women's Program they are providing an appropriate way to address gender disparity on the Net. General survey findings reveal that electronic communication is emerging as an important resource for the women who participated in the study. Moreover, respondents are open to exploring new tools, building women's resources, and working cooperatively in this area. There remains,

however, a need for a coordinated effort to foster mutual approaches and partnerships to confront the barriers women face in access and use, particularly for women in the South.



The APC Women's Networking Support Program

is an initiative of the Association for Progressive Communications (APC), a worldwide partnership of computer networks offering communications links to tens of thousands of NGOs, activists, educators, policy makers, and community leaders in over 130 countries. Funding for this research and for the Gender and Information Technology (GIT) Project was provided by the International Development Research Centre (IDRC), Canada. We gratefully acknowledge their contribution and would also like to thank the many women who participated in the survey research.

If you'd like to receive a copy of the survey report, or other information please contact:

APC Women's Networking Support Program,
GreenNet Limited/GreenNet Educational Trust,
Bradley Close, 74-77 White Lion Street,
London, N1 9PF, England.

tel: +44/171-713-1941 fax: +44/171-837-5551

e mail: apcwomen@laneta.apc.org

URL: <http://www.apc.org/women/>



In response to these findings and conclusions, the APC Women's Program has formed a 'working group' responsible for assessing the findings in order to set forth a plan to action that will guide future programming. Regional consultations are being organized to discuss the ramifications of the survey findings for women in specific areas. The outcome of these meetings will shape future regional and global initiatives. A training team is using the lessons learned to inform the development of training programs. Finally, selected information from the survey has been compiled in a database of women and electronic resources around the world. **WE**

TECHNOLOGY and DEVELOPMENT

Strategies for the Integration of Gender

A Report from the TOOL/
TOOLConsult Conference

by
Saskia Everts

With texts like that at right, TOOL and TOOLConsult, two closely linked development organisations in Amsterdam, invited development workers to their International Conference on Gender and Technology, held on June 6, 1997. The conference closed off a two year project on Gender & Technology, financed by DGIS, the Dutch Ministry for International Cooperation and implemented by TOOLConsult. The aim of the conference was to share the main results of the Gender & Technology project with other development workers.

You know, of course, that "gender" is a buzz-word in development policy.
You know, that your project, too, is supposed to do something with gender...

BUT... Do you sometimes — in your worst moments — also think:

- That those guys (or women...) who make the gender policies have no idea of the real situation in the field.
- That integration of gender may work for health or social projects. But gender experts don't seem to realise that many of your projects are technical projects and not women's projects.
- That you don't discriminate — yet all you get is criticism, without being offered feasible alternatives.

If this is how you sometimes think about gender, then this conference will be for you!

- Because we think we can convince you of the advantages of the integration of gender issues in technical projects
- Because we will show you examples of how incorporating a gender perspective can actually improve the implementation of projects
- Because we will present to you some practical ways of dealing with gender

The Gender & Technology Project at TOOLConsult is a two-year project designed to develop approaches for the integration of gender in technology-related projects. A gender training programme for technical personnel was designed and tested, and a pragmatic gender analysis tool, called EGA (Effective Gender Analysis) was created and applied to TOOL's and TOOLConsult's own projects. Also, training on the "ins and outs" of technology transfer to women's enterprises was developed, and was held with intermediary organisations in Ghana. Finally, a paper on gender and technology was produced.

Development workers involved in technical development projects were specifically targeted to take part in the TOOL/TOOLConsult conference. The main focus was on tools and methods for intervention. In addition to the presentation of TOOLConsult's own approaches, thirteen experts from different countries presented lectures and practical workshops. Prior to the conference, an Expert Workshop was held which explored gender and technology as it relates to three themes: small-scale enterprise, agricultural technology, and energy and the environment.

The conference attracted 125 participants. This illustrates the great interest that exists among development workers in the theme of gender and technology. Although the aim had been to interest people that don't usually go to conferences on gender, some 80% of the participants were women, suggesting that this aim was not fully achieved. Yet, (male) representatives from "mainstream" organisations were present and participated actively in the discussions and working groups.

Keynote lectures were delivered by Marilyn Carr (senior economic advisor at UNIFEM), Govind Kelkar (head of the Gender and Development Studies Centre of the Asian Institute of Technology in Thailand), and Saskia Everts (gender & technology expert at TOOLConsult and conference organizer). These speakers noted, respectively, the increase in awareness of issues of gender and technology in development organizations, the growing recognition that gender and technology is not a 'northern donors' issue, and that men and non-gender experts must be involved in the efforts to integrate gender issues in technological development. Eight working groups were also presented by participants from Ghana, the U.K., the Netherlands, and the Philippines.

The Expert Workshop and Conference addressed gender aspects of many different technologies, such as drying racks for fruit and vegetables to be used in women's small scale enterprises, irrigation technology, animal traction, transportation, conventional and renewable energy technologies, and technologies for solid-waste management. Each of these is a subject in itself, but a few general themes and insights

emerged from these varied subjects. One of these was the need for approaches that succeed in reaching and involving men. For example, one paper, based on interviews with male agricultural engineers from Southern and Eastern Africa, stressed the importance of a non-confrontational approach, where gender considerations are shown to benefit all family members. Likewise, the Effective Gender Analysis instru-

... men and
non-gender
experts
must be
involved in
the efforts
to
integrate
gender
issues...

ment, presented in one of the working groups, aimed at engaging non-gender experts in a basic degree of gender analysis, leading to at least some improvements in every project, rather than going for a full-fledged time-intensive gender analysis, which in practice would only be implemented in some cases.

Conference materials are available from TOOLConsult, Sarphatistraat 650, 1018 AV Amsterdam, The Netherlands, tel./fax: +31.20.6264409; e mail saskia.everts@tool.nl. **WE**

Reproducing Persons

Issues in Feminist Bioethics

by Laura Purdy

Ithaca, New York: Cornell University Press, 1996. 257 pgs.

Reviewed by
Christine Saulnier

As we enter the next millennium, we do so with cloned sheep, and test-tube babies. We are faced with a myriad of ethical decisions about how to proceed, and which new biotechnologies to develop and use. What would a distinctly feminist bioethics look like?

Reproducing Persons is a compilation of essays written by Laura Purdy between 1974 and 1995. In them, Purdy suggests that utilitarianism can provide some helpful insights in developing a feminist bioethics. Parts I and II explore issues in feminist bioethics relating to New Reproductive and Genetic Technologies (NRGTs), including those technologies that promote conception (surrogacy, in vitro fertilization or IVF, artificial insemination) and those that detect the characteristics of fetuses and adults (genetic testing, and pre-natal and pre-implantation diagnostic technologies such as ultrasounds and amniocentesis). The essays in Part III are provocative pieces on contraception and abortion.

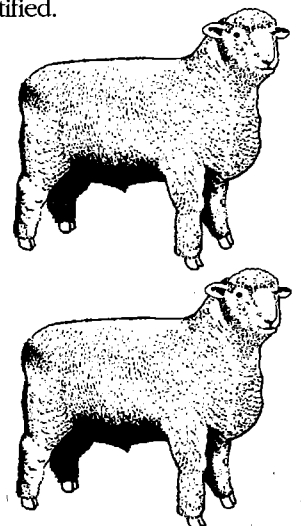
Two of the most pressing questions that Purdy faces are, first, should a woman always accept her right to reproduce even if genetic technologies reveal that her potential child has a genetic disorder? And second, should certain conceptive technologies be regulated to fulfill the desires of some women to conceive genetically related children? Purdy answers these questions by trying to mediate a path between short term and long term happiness/misery, between embracing NRGTs and rejecting them, between the needs of infertile women and other groups of people including people with disabilities. The path she constructs seems to merely favour the one that she feels was previously in disfavour. She thus advocates a short term, "cautious and

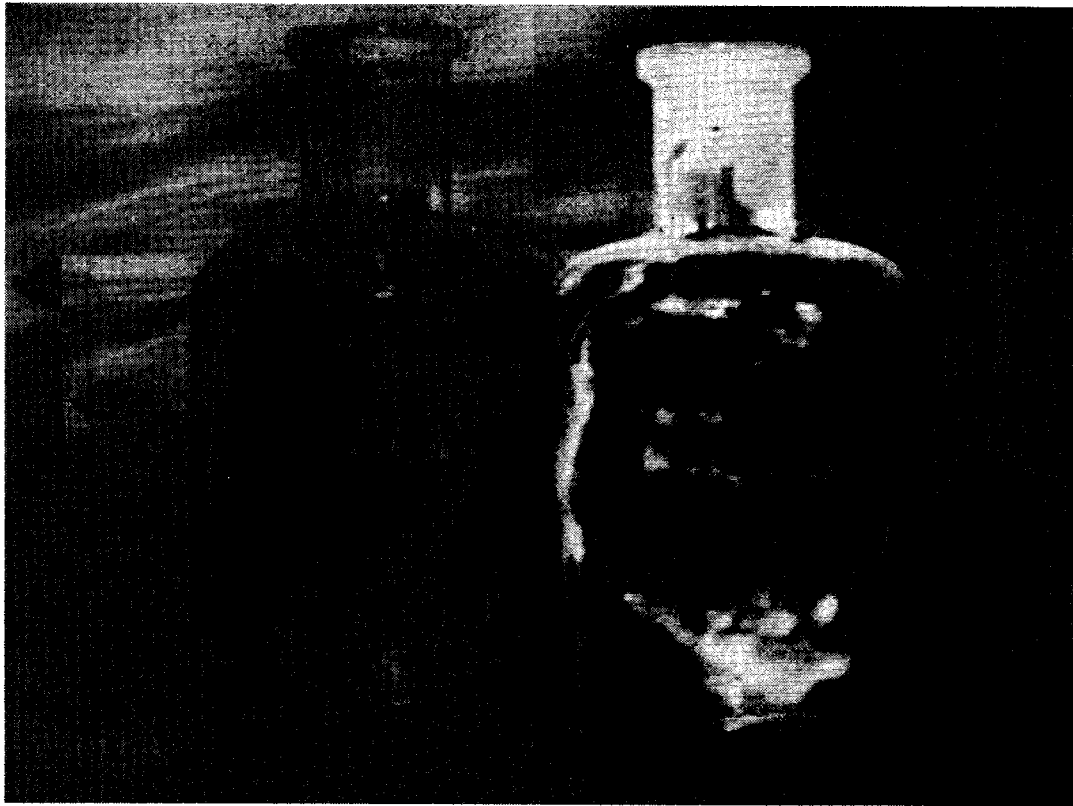
carefully regulated use of some techniques [that] can empower women" who need them.

Purdy provides an optimistic, liberal assessment of NRGTs that contrasts sharply with the radical/eco-feminist position that dominates the Feminist International Network of Resistance to Reproductive And Genetic Engineering (FINRRAGE). She insists that this position does not "serve women" because conceptive technologies such as IVF should only be rejected if they are more harmful than the alternatives (including the status quo of remaining infertile). She concludes that these technologies are not harmful to the parent-child relationship, marriage relationships, or the family. Relegating concerns surrounding the harmful mental and physical consequences for women to a footnote, Purdy's solution to possible abuse of conceptive technologies is limited to state regulation.

Purdy argues that regardless of the alternatives available to infertile women (not to reproduce, to adopt, or to foster) some women will always want the choice to experience pregnancy. Therefore the wholesale rejection of new reproductive technologies cannot be justified.

At a fundamental level, Purdy considers all technologies to be neutral and potentially progressive tools; their application and regulation will decide the outcome for each individual woman who consents to their use. Her continual search for "the middle ground" between the application of a particular technology and universal moral principles, means that she often refuses to consider the intrinsic value of the technologies involved and focuses exclusively on their consequences. As a result, she concludes that the negativism surrounding conceptive aids is not justified —





Nell Tenhaaf. *In Vitro*, 1990, Détail, Installation, 120 x 152 cm, 4 coffrats de bois, duratrans.
(Permission: Galerie Samuel Lallouz)

In Vitro (the perfect wound) concerns knowledge and the technologized body. In this work, a quest to know the body makes of it an experimental site, and turns it into a perverse, quasi-biological science display. This display shows penetration of the body as a process of fragmentation and classification. It also posits science as a sacrificial practice, through the repeated image of Jesus Christ's flesh wound.

even the controversial "artificial womb" can be defended if it alleviates the risks associated with pregnancy for some women.

I believe Purdy's position is too permissive, especially given the many interrelated consequences of these technologies. As FINRRAGE members persuasively argue, no matter how carefully technologies such as the "artificial womb" are regulated, their very development in a capitalist, patriarchal society is immensely troubling. Can we, given the social, political and economic motivations for their development, accept these technologies as alternatives to infertility? The attempt to alleviate inequities with the judicious use of "appropriate" technologies does nothing to undermine systemic biases or deal with the roots of the problem. Such strategies merely bypass complex reproductive problems for the short term. Clearly, a comprehensive strategy is urgently needed; one that goes beyond both short term happiness and the particular application of these technologies, to examine global dimensions.

Purdy's discussion of the use of genetic technologies is also problematic. To her credit, Purdy does recognize that a better alternative to the use of such technologies is a greater social responsibility for those individuals who are in need because of a disease or disability. She also acknowledges that if money is spent on genetic screening, less money is often available for appropriate social programmes. However, since social change is a long term solution, some guidelines

must be determined for the use of genetic technologies now. For Purdy, the risks of new reproductive technologies (including cloning) are preferable to the risks of diseases such as Huntington's. Where the line is drawn in such issues is dependent on the degree and inevitability of the suffering. Purdy thus draws the line at aborting a fetus because of its sex (unless it is related to a disease). According to her criteria, however, can we really draw the line at sex in every context? Is the certainty of female genital mutilation harm enough to justify abortion? Or, moreover, can we extend this argument to the mercy-killing of a child that develops a disability or disease? Her arguments assume that we can conclusively decide the meaning of quality of life — but can we really?

Reproducing Persons offers thought-provoking suggestions to many bioethical dilemmas. If a woman voluntarily agrees to be a surrogate, can she be empowered to claim pregnancy as a job, if it is regulated to include a minimum wage? Can having children be immoral? Are pregnant women fetal containers? Laura Purdy answers yes to all these questions. Her arguments are insightful, articulate and decisive. Many readers, however, will find it difficult to accept this liberal feminist's utilitarian interpretation of these dilemmas, and may even want to dismiss it outright. Nevertheless, while many may not agree with Purdy's conclusions, the way she has arrived at them is useful, and, at the very least, allows us to revisit old questions with fresh lucidity. **ME**

text

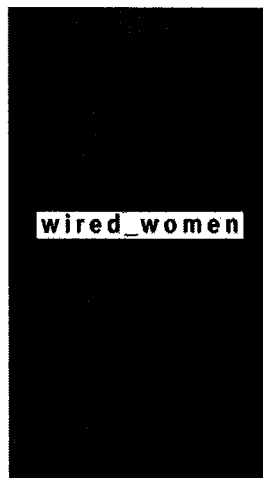
by Larissa Silver and Melanie Stewart Millar

Wired Women: Gender and New Realities in Cyberspace

Lynn Cherny and Elizabeth Reba Weise, Eds.
Seattle: Seal Press, 1996
265 pgs. \$16.00 US.

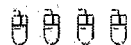


Well, they're women, they're wired, and they wanna tell you about it! This edited collection of short, pop-culture style articles details women's personal experiences in cyberspace. *Wired Women* provides a highly accessible jaunt into the world of Usenets, MUDDs and MOOs. The gendered content and context of "Net Culture," however, gets lost by authors who are as "enmeshed in and enamoured of this thing we call the on-line world" as one of its editors explicitly claims to be.



Technologies of the Gendered Body: Reading Cyborg Women

Anne Balsamo
Durham and London: Duke University Press, 1996
163 pgs. \$25.15 CDN.



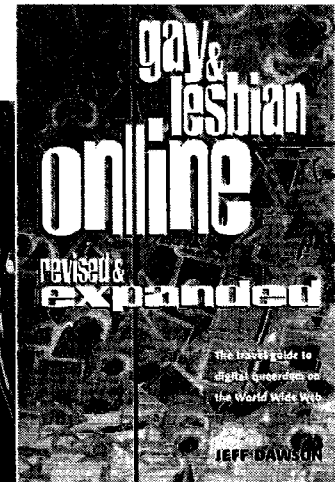
Balsamo's examination of the gendered body in (post)modern, body-obsessed, hyper-mediated, American techno-culture, is an engaging and sensible blend of astute critical Foucauldian analysis and feminist intervention. Although Balsamo accurately identifies the critical problem of attempting to link cultural narratives with the material conditions of women's lives, she (like those before her) falls short of meeting this challenge. It is a telling sign that neither "economics" nor "capitalism" are included in the index.

Gay and Lesbian Online: A Travel Guide to Digital Queerdom on the World Wide Web

Jeff Dawson
Berkeley, California: Peachpit Press, 1997
389 pgs. \$23 CDN.

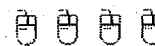


If you're the type to enjoy whiling away the hours clicking your way through the world wide web, here is a book for you! Dawson's "revised and expanded" encyclopedic guide to queer culture on-line combines a thematic, easy-to-follow format with witty introductions and descriptions. Feminist readers should be aware that there is no gender analysis of content here. While it is impressive to see such a compilation of gay-friendly sites, the question remains: if you're enough of a netizen to require such a detailed guide, do you really need one? Still, makes a great gift.



Modest Witness@Second Millennium. FemaleMan Meets Oncomouse: Feminism and Technoscience

Donna Haraway
New York: Routledge, 1997
361 pgs. \$26.95 CDN

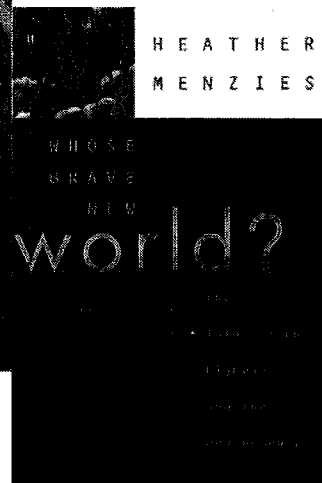
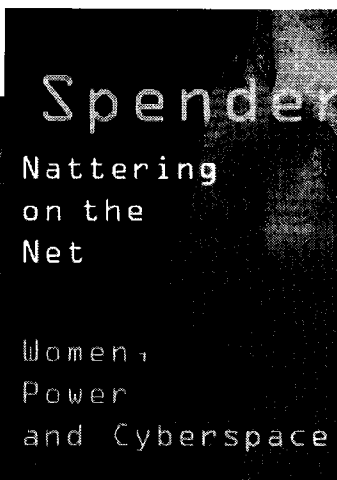
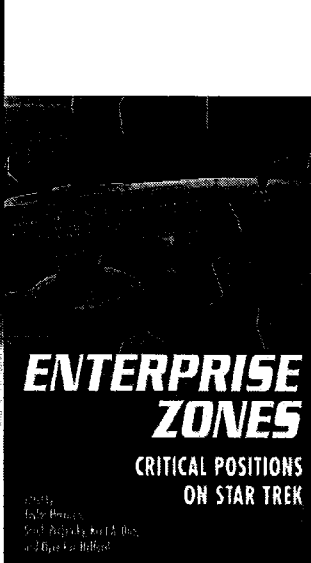


From the woman who gave us the provocative "Manifesto for Cyborgs" comes this self-proclaimed "exercise regime and self-help manual for how not to be literal minded, while engaging promiscuously in serious moral and political inquiry." This dense work (like many post-structuralist offerings that seem to be overly enamoured with language and multi-clause sentences) will annoy materialists, fans of plain English and theory-phobes of all stripes. However, it is far too easy to dismiss that which is not easily understood.

Modest Witness... is an interesting read that may be just slightly ahead of its time — if you have the stamina to decipher it.

In sum, the title says it all.

feminism lite with the development, socialization, and perpetuation of a technology that may be leaving women in the dust. Unfortunately, she by-passes any analysis of this phenomenon. For someone who claims to be writing a book about people rather than computers, Spender's epic predictions for the demise of print culture, "gender-bending," the death of the author, and cyber-society are remarkably technologically deterministic.



**Enterprise Zones:
Critical Perspectives
on Star Trek**

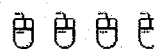
Taylor Harrison, Sarah Projansky, Kent A. Ono and Elyce Rae Helford, eds.
Boulder, Colorado: Westview Press, 1996
278 pgs. \$23 CDN



Enterprise Zones is a self-proclaimed "mature" (academic) commentary on how the Star Trek world plays out themes of sexism, racism, and colonialism. At times, some of the papers take the Star Trek theme a little too far, prompting questions about the writer's ability to separate television from reality. This book is most enjoyable for those already familiar with the Star Trek conglomerate, although none of the papers examine Star Trek's marketing empire — bought a Star Trek mousepad recently?

**Nattering on the 'Net:
Women, Power and Cyberspace**

Dale Spender
Toronto: Garamond Press, 1996
260 pgs. \$21.95 CDN.



Informative, chatty, and largely anecdotal, this book is a must-have for those who want a soft introduction to women and computer networking. Spender blends

**Whose Brave New World?
The Information Highway
and the New Economy**

Heather Menzies
Toronto: between the lines, 1996
164 pgs. \$19.95 CDN.



Making the crucial and oft-neglected connection between the information highway and global economic restructuring, Menzies' work is a sorely needed antidote to a field plagued by technotopic predictions. Though Menzies clearly recognizes the gendered nature of new forms of employment, such as telework, her gender analysis could be more strongly emphasized and extended. In addition, there is no discussion of the environmental impact of "the new economy." The work ends with some positive suggestions for political action that (admirably) refuse to let the nation state off the hook. **WE**

WE contribute

Alison Bindner is a Toronto artist who has been exhibiting for 12 years nationally and internationally. She received her B.F.A. from the University of Western Ontario and a M.F.A. from York University. Alison is also part of the Art Gallery of Ontario's "Artists with their Work" program and the BVW Artist Collective.

Barbara Crow is an Assistant Professor in Women's Studies at the University of Calgary, Alberta, Canada. Her forthcoming edited collection from New York University Press (1997) is entitled *Radical Feminism: Primary Documents*.

Maureen Engel is a PhD student at the University of Alberta, Edmonton, Alberta. She is working on research related to lesbian pornography.

Saskia Everts is an expert in the integration of gender in technology and development projects at TOOLConsult in Amsterdam.

Marie T. Farr is an Associate Professor and Acting Associate Chair of the Department of English at East Carolina University in Greenville, North Carolina. The founding director of the Women's Studies Program, she is currently investigating gender differences in 20th century fiction and drama.

Vera Frenkel is a Toronto-based multidisciplinary artist. Her most recent solo exhibition, including the six-channel videodisc installation, "...from the Transit Bar" and the *Body Missing* video and Web projects (<http://yorku.ca/BodyMissing>), opened in June at the Centre of Contemporary Art, Warsaw, as part of a Riksställningar tour through Scandinavia and Poland.

Caitlin Fisher is a PhD student in Social and Political Thought, York University, Toronto, Ontario, Canada. She is currently working in and on hypertext.

Hélène Grégoire is from Québec, Canada. She has an M.A. in Rural Development Sociology from the University of Guelph, Ontario, Canada, and has done extensive research on women and sustainable development in Honduras.

Stacy Harwood is a doctoral candidate in the School of Urban Planning and Development at the University of Southern California, and a Housing Aide for the Community Development Agency in the City of Santa Ana.

Susan Myburgh is a Senior Lecturer at the University of South Australia. Her current research is on Internet use by academic women, with particular regard to their information-seeking behaviours.

1999 BERKSHIRE CONFERENCE ON THE HISTORY OF WOMEN

CALL FOR PAPERS

The 11th Berkshire Conference on the History of Women, "Breaking Boundaries," will be held on June 4-6, 1999 at the University of Rochester, Rochester, New York, USA. The Program Committee welcomes proposals and a participant spectrum that transcends regional, disciplinary, and cultural boundaries and involves the audience in presentations. We also seek proposals that discuss pedagogy, public history, collaborative research, and feminist activism.

We prefer proposals for complete panels (normally two papers, one commentator, and a chair) or roundtables, especially those with cross-national and comparative themes. Individual papers will also be considered.

All submitted proposals must be postmarked by January 31, 1998.

For proposal details and submission requirements, please write PROPOSAL ENQUIRIES, Berkshire Conference, c/o Nell Pointer, History, Princeton University, Princeton, NJ 08544, USA: or see our website at: www-berks.aas.duke.edu

Nancy Paterson is a Toronto based electronic media artist working primarily in the field of interactive installations. Her website URL is <http://www.bccc.com/nancy/nancy.html>. She may be reached by e mail at: nancy@utcc.utoronto.ca.

Christine Saulnier is a doctoral candidate in Political Science at York University, Toronto, Canada. Her research and publication work focus on women and new reproductive technologies.

Larissa Silver recently completed her M.A. in Women's Studies at York University, Toronto, Canada, where she researched gender and on-line discourse. She is currently a member of the *WE International* editorial board.

Geneva Smith describes herself as a 42-year-old woman with Muscular Dystrophy who prides herself on her independence. She is interested in the ways in which modern technology can be used to help preserve the self-reliance of the disabled.

Melanie Stewart Millar is a doctoral candidate in Political Science at York University, Toronto, Canada, and a member of the *WE International* editorial board. Her forthcoming book from Second Story Press (1998) takes a feminist approach to digital discourse.

Nell Tenhaaf is a Toronto-based artist and writer whose work addresses the cultural implications of new technologies. She teaches in the visual arts department of York University, and is represented in Montreal by Galerie Samuel Lallouz.

Dr. Immaculate Tumwine was born in Uganda. She has been active in international development and was Communications Officer at the Association of African Universities, a Pan-African non-governmental Organization based in Ghana.

Jacintha van Beveren has published several articles on gender and the purchase and usage patterns of household technology. She is a doctoral candidate in Sociology at Erasmus University Rotterdam, The Netherlands.

Bonnie Winfield, PhD is an Assistant Professor in the School of Education and Human Development at Binghamton University, Binghamton, New York. She has been active in the National Congress of Neighborhood Women, local Citizen Action teams, and community-based learning partnerships in local high schools and colleges.

Peregrine Wood is a member of the APC Women's Programme and co-founder of WomensWeb, an Internet community and support program. She is also a doctoral candidate in the Faculty of Environmental Studies at York University in Toronto, Canada. **WE**

WE

Text (not-so-hyper):

1,000-2,000 words.

Graphics:

simple lines, shapes & shades

Labour:

volunteer international bureau chiefs;
product, promotion and distribution
assistance; research assistance;
fundraisers; and more!!!

Bits & Bites:

in-kind services, donations and trade-
offs, computers, office supplies,
production services, saleable product
donations and more!!

interactive
fiction



ISBN 1-875559-56-6 US\$13.95 paper

Building Babel
by Canadian author,
Suniti Namjoshi

Visit the Babel
Building Site
<http://www.spinifexpress.com.au/~women/babelbuildingsite.html>

The Internet for Women
Rye Senjen & Jane Guthrey



ISBN 1-875559-52-3 US\$16.95 large format paper

Finally, an Internet book
for women that stands out
from the rest
- *Internet News*

... accessible, fun and
relevant - *Woman's Space*

URL /internet.html

Spinifex Press is an independent, feminist press publishing innovative and controversial fiction and non-fiction by Australian and international authors.

Available at fine bookstores
NY Office
MKPubServ@aol.com
718-351-9599
Trade orders: Inbook/LPC
Group
800-626-4330

take a spin with SPINIFEX PRESS <http://www.spinifexpress.com.au/~women>

Give a year-long GIFT Get the DEAL of a lifetime!

WE International magazine



IN CANADA

1 GIFT	\$19	(\$19.00)
2nd GIFT	\$13	(Total \$32.00)
3rd GIFT for a <u>TWOONIE \$2.00!!!</u>		(Total \$34.00)

OUTSIDE CANADA

1 GIFT	\$19 USD/ \$26 Cdn	(\$19.00USD/\$26.00Cdn)
2nd GIFT	\$13 USD/ \$17 Cdn	(Total \$32.00USD/\$43.00Cdn)
3rd GIFT for 2 BUCKS	\$2.00 USD/\$2.65 Cdn!!!	(Total \$34.00USD/\$45.65Cdn)

Gift Giver

Gift Giver's Name _____

Address _____

City _____

Prov/State _____

Postal _____

Country _____

E mail _____

Bill Me Cheque enclosed

VISA# _____

exp. _____

Please make cheques payable to
WE International. Thank you!

Gift #1

Name _____

Address _____

City _____

Prov/State _____

Postal _____

Country _____

E mail _____

Gift #2

Name _____

Address _____

City _____

Prov/State _____

Postal _____

Country _____

E mail _____

Gift #3

Name _____

Address _____

City _____

Prov/State _____

Postal _____

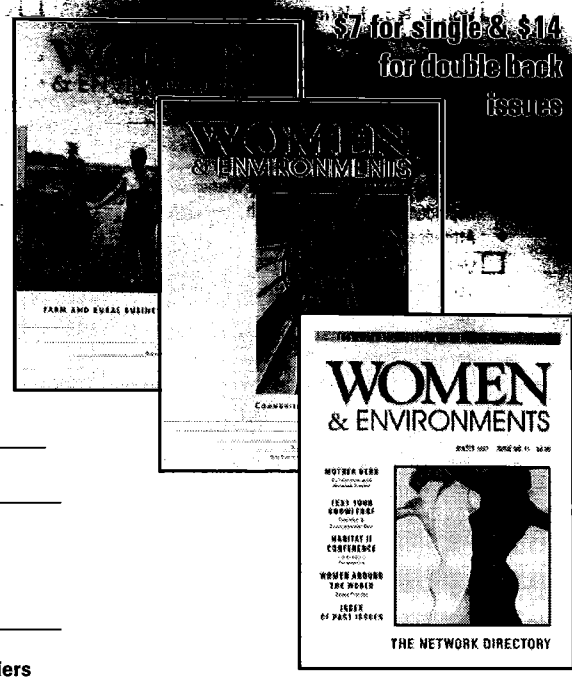
Country _____

E mail _____

c/o The WEED Foundation, 736 Bathurst St. Toronto, ON M5S 2R4
phone: (416) 516-2600 fax: (416) 531-5214 e-mail: weed@web.net
Internet: <http://www.web.net/~weed/>

20 years of WOMEN & ENVIRONMENTS

\$7 for single & \$14 for double back issues



Choose your back issues and see reverse for payment & mailing information:

- Vol. 1 No. 1: 1976
Habitat 1, Vancouver to the World
 - United Nations Habitat Forum, Vancouver
 - List of feminist participants

- Vol. 1 No. 2: 1977
Report on Progress
 - Events, Conferences and Reports
 - Women & Environments objectives

- Vol. 2 No. 1 Fall: 1978
Feminizing Our Surroundings
 - Women's Spaces: The Women's Building
 - A Women's Cultural Centre
 - Women's Transit Authority
 - Canadian Women's Educational Press
 - The Women's School of Planning & Architecture

- Vol. 2 No. 2 Winter: 1978
Taking Charge
 - Going Strong: Boston Women's Health Collective
 - Urban Sprawl: The Price Women Pay

- Vol. 3 No. 1 Spring: 1979
Designing Our Lives
 - Volunteerism and the Environment
 - Women's School of Architecture and Planning

- Vol. 4 No. 1/2 Summer/Winter: 1980
Planning Around the World
 - Women and Planning: The French Example
 - Nordic Women's Planning Forum
 - Women and Planning: Australia

- Vol. 4 No. 3 Winter: 1981
Network Directory '81

- Vol. 5 No. 1 Summer: 1981
The Family and Survival
 - Kidspace: Community Design for Family Use
 - Women, Nuclear Power and Energy Issues
 - Survival Feminism

- Vol. 5 No. 2 Summer: 1982
Rural & Urban: Frontiers & Barriers
 - Battered Women in Rural Communities
 - Women's Roles in Discussing & Revitalizing Cities
 - Women as Urban Developers

- Vol. 5 No. 3 Fall: 1982
Women On the Job
 - Women's Construction Employment Program
 - Remote Office Work

- Vol. 6 No. 1 Summer: 1983
Network Directory '83

- Vol. 6 No. 2 Spring: 1984
Urban Realities
 - Women and Urban Public Space
 - Shelter Plus for Single Parents
 - Women's Urban Innovations

- Vol. 6 No. 3 Fall: 1984
Being Woman: Moving, Planning, Helping
 - Work, Travel and Constraints of Childcare
 - Prospects for Women Planners
 - Le Centre des Femmes, Montreal

- Vol. 7 No. 1 Winter: 1985
Gender Ownership
 - Space and Place: Territorial Training for Traditional Gender Roles
 - Will Women Change Technology, or Will Technology Change Women?
 - A New American House

- Vol. 7 No. 2 Spring: 1985
Women, Mobility and Planning
 - Planning for Women in London
 - Organizing for Better Transit
 - Prospects for Women Architects

- Vol. 7 No. 3 Fall: 1985
Aging, Invisibility and Housing
 - Women, Property Rights and Development
 - Aging Women in Rural Society
 - Reclaiming Architecture: Women's Cultural Building

Back issues list continues on reverse...

**Subscribe or
renew and
SAVE
1/3 OFF
the newsstand
price**

As a new subscriber you receive a FREE BONUS ISSUE!!

Name

Address

City Province/State

Country Postal/Zip Code

e mail

Payment method: Please add \$8 for subscriptions outside Canada, plus \$10 for business or institution.

Bill me Cheque enclosed New subscriber Renewal

Visa card #

Signature Exp. Date

Return to: WE International, 736 Bathurst St., Toronto, ON Canada M5S 2R4



- Vol. 8 No. 1 Winter: 1986**
Isolation and Inclusion
 - Isolation and Mental Health
 - Birth Settings: A History
 - Women and Habitat, Nairobi '85

- Vol. 8 No. 2 Spring: 1986**
Hazards and Economics
 - Planning to End Violence Against Women
 - Reproductive Hazards on the Job
 - Attitudes to Technology

- Vol. 8 No. 3 Fall: 1986**
10th Anniversary Issue
 - Radical Photojournalism
 - The Suburbanization of Jobs
 - Ten Active Years
 - The birth and growth of *Women & Environments*

- Vol. 9 No. 1 Winter: 1987**
Economic Horizons
 - Women, Planning and the Local State
 - Rough Horizons: Women in Offshore Oil
 - Low-Income Women: Activism and Support
 - Women and manmade environments
 - Reshaping Urban Services

- Vol. 9 No. 2 Spring: 1987**
Voices For Change
 - Planning for Daycare
 - Explorations of Ecofeminism
 - Margherita Howe: Environmental Watchdog
 - Women and the Natural World
 - Native Women's Community Needs and Deprivations

- Vol. 9 No. 3 Summer: 1987**
Network Directory '87

- Vol. 10 No. 1 Fall: 1987**
Dwelling and Duress
 - The Kid in the Cardboard Box
 - A Women's Housing Manifesto
 - Survivors of Violence: Global Organizing
 - The Gender of Homelessness

- Vol. 10 No. 2 Winter: 1988**
Multinational and Multi-Solutions
 - Organizing in Lima Shanty Towns
 - Coping with Children and Work
 - The Oodi Weavers of Botswana
 - The Social Service Innovations of WWII era Housing
 - Free Women - Trade the Multinationals

- Vol. 10 No. 3 Spring: 1988**
Ecofeminism: Theory and Realities
 - Taking Sides: What's Wrong With Ecofeminism
 - What is Ecofeminism?
 - Bombay Pavement Dwellers Struggle for Shelter
 - In a Stateless Environment: Women in Palestinian Refugee Camps
 - Women's Ownership Options: Co-ops
 - Dollhouses and Social Theory

- Vol. 10 No. 4 Summer: 1988**
Network Directory '88

- Vol. 11 No. 1 Fall: 1988**
Women and Work
 - Juggling Work and Family
 - The Changing Patterns of Women's Work
 - Taking Sides: Racism Hurts Us All
 - Feminists: Explorers or Exploiters

- Vol. 11 No. 2 Winter: 1989**
Spaces, Places, and Activism
 - Canadian Women's Housing Co-op
 - Women's Spaces in Northern India
 - Anti-Nuclear Activism
 - A History of International Women's Day
 - SEWA: A Women's Labour Movement in India

- Vol. 11 No. 3/4 Spring/Summer: 1989**
Urban Turf
 - Safety in the Netherlands
 - Running a Business Out of Your Home
 - Affordable Housing: Where is it in America?
 - Elder Housing: Changing Needs
 - Gender, Privatization and Job Loss

- Vol. 12 No. 1 Fall/Winter: 1989/90**
Women & Urban Safety
 - The City for Women: No Safe Place
 - Moving Forward on Public Transit
 - Killing Women: A Response to Gender Equality?
 - Women's Work: Urban and Social Change
 - Violence and Voices: Mobilizing for Change

- Vol. 12 No. 2 Spring: 1990**
Implicating the Social
 - Parenting: A Collective Job Description
 - Disabled Women's Exclusion: Unequal Access
 - Fractured Loyalties: Work in a Mental Health Centre
 - Fish & Fetishes: Victorian Woman on African Rivers

- Vol. 12 No. 3/4 Winter/Spring: 1991**
Charting a New Environmental Course: Special Triple Issue
 - Matching Women: Environment and Development
 - Green Living, Green Consumerism
 - "Environmentalists I Have Known"
 - Opening Pandora's Box: Electromagnetic Radiation
 - Food Bowl or Dust Bowl
 - Living Law
 - Our World: A Work in Progress
 - Hype, Hope, Hoopla and Hot Air: Brazil '92

- Vol. 13 No. 1 Fall/Winter: 1991**
Network Directory

- Vol. 13 No. 2 Spring: 1992**
Whitewash
 - The Green Consumer
 - Exposing Sanitary Products: *Whitewash*
 - Women for a Just and Healthy Planet
 - Women, Environment & Urbanization in 3rd World

- Vol. 13 No. 3/4 Winter/Spring: 1993**
Global Report: Women & Development
 - The Debt Crisis in Latin America
 - Life in the UNCED Lane
 - Population and Environment: An Indian Perspective

- Vol. 14 No. 1 Fall: 1994**
Women, Power and Process
 - Toward a Geography of the Lesbian Community
 - Feminism and Community Development
 - Women's Safety and the Politics of Transformation
 - Death, Life & Empowerment in West Indian Women's Groups
 - Old People Having a Say

- Vol. 14 No. 2 Spring: 1995**
Communities That Work For Women
 - Gender and Homelessness
 - Women and Town Planning: Changing Positions
 - Building Community Through Age & Gender Alliances
 - From Poison to Protest: Home-Based Resistance
 - Chicago & Research in the Early 20th Century
 - Standing Up to the Machine: Women's Fear
 - Voices: Housing, Governments and Planning

- Vol. 14 No. 3 /Issue 38 Spring: 1996**
Women In Rural Business and Agriculture: Canada
 - Day In the Life of a Farmer
 - Women Are Real Farmers, Aren't They?
 - Fear On the Farm: Action Against Domestic Violence
 - Breaking Down Barriers For Women Farmers
 - Agricultural Politics & the Gender of Rural Economic Development
 - Enterprising Women
 - Rural Women's Training Needs

- Vol. 14 No. 4/ Vol. 15 No. 1/Issue 39/40 Summer/Fall: 1996**
20th Anniversary Issue - Vancouver to Istanbul
 - Women, Tangerine Orchards and Tourism
 - Don't Give a Dam!: Tribals Against an Indian Dam
 - Environmental and Urban Life - An Argentinian View
 - Right to Housing, Right to Debt: Patriarchal Paradigm
 - Reports from Around the World: Zwolle, Netherlands; Brooklyn, New York; Bergkamen, Germany; Vienna, Austria; Bangladesh; Kenya; United Kingdom; Japan; Colombia; Canada; New Zealand; Tanzania
 - European Charter for Women in the City
 - Global Women and Shelter Strategies

- Issue 41 Winter 1997**
The Networking Directory
 - Mother Herb: Waltraut Richter interview
 - Test Your Knowledge: Feminist & Environmental Quiz
 - Habitat II Conference: A Gendered Perspective
 - Women Around the World: Seven Profiles
 - Index of Past Issues

Women & Environments Back Issues Order Form
 \$7 for single issue \$14 for double issue
 4 for \$22.00 Save \$5 on 8 issues

List issues here or return this form

.....

.....

Name

Address

.....

City Province/State

Country Postal/Zip Code

e mail

Bill me Cheque enclosed

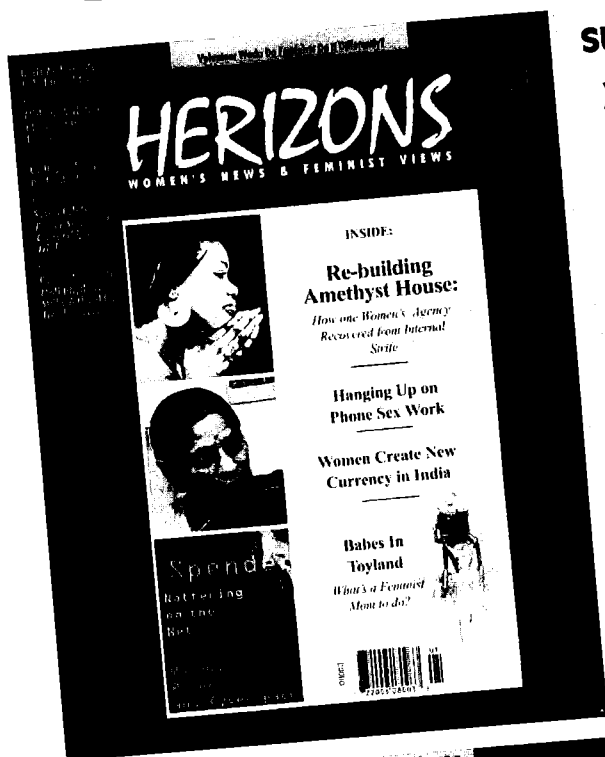
Visa card #

Signature Exp. Date

Return to: WE International, 736 Bathurst St., Toronto, ON Canada M5S 2R4

Subscribe

now to a feminist point of view



SUBSCRIBE TO HERIZONS AND:

- Find out how feminists in Canada are making the world a better place for women.
- Read about the new debates on the issues facing Canadian women.
- Get the latest on Charter of Rights cases affecting women.
- Explore the changes going on in the women's movement.
- Receive absolutely no beauty tips.

SOUNDS GREAT. NOW WHAT?

Place your order. Fill in the *Herizons* Subscription Card in this issue and mail it in with your payment. Or, if you prefer, we'll bill you.

Then sit back and relax.

We'll Deliver. Right to Your Door.

As a subscriber, you'll read loads of feminist articles that you won't find anywhere else. And you can save \$8 by ordering a 2 year subscription. (8 issues)

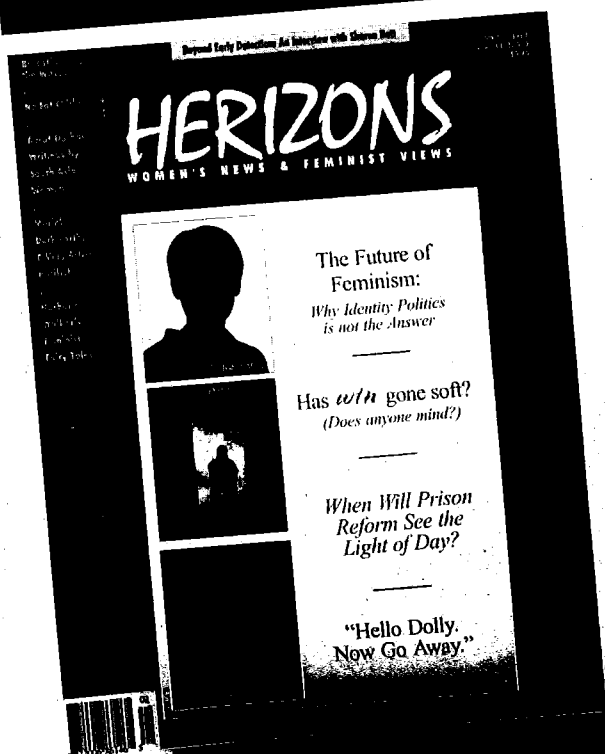
HERIZONS will bring you:

- Great interviews
- Tons of book reviews
- Feminist satire
- News from around the country

**Send in
Your Order
Today!**

SUBSCRIBE NOW!

SAVE \$8
for just
\$9.90!



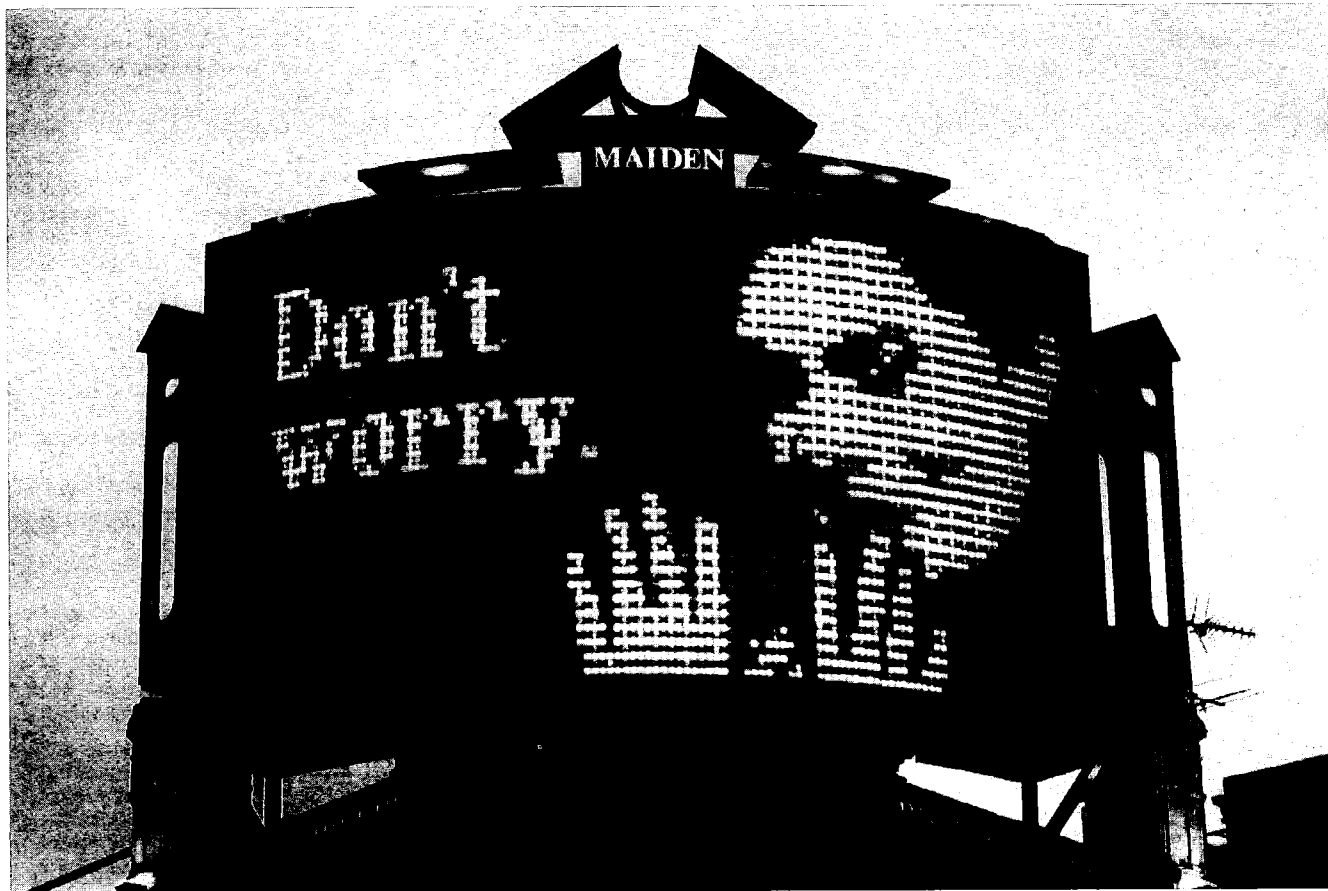


Photo: Harry Chambers

**“This is your Messiah speaking,
instructing you to shop.
No one will ever force you...”**

Vera Frenkel