

Getting Gender Into the ICT Agenda: Canadian Experiences

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In the last two decades Canada has been viewed as an important nation leading the way on a number of women's issues such as violence against women and pay equity. As well, Canada's progressive policies and programmes in information and communication technologies (ICTs) have been taken up as a model for a number of developing nations around the world. However, despite a number of attempts to integrate gender more fully into communication programmes and policies, there is still a gender gap and digital divide in the use of technology in both paid and unpaid work, leisure, study, and employment. In this paper we discuss the ways in which gender disparities continue to manifest themselves in ICT policies and practices in Canada and other industrialized nations. In particular, we are interested in how to develop policy given the changing nature of digital technologies. As more and more individuals and nations pursue wireless technologies, how do we insure women's agency in these technological developments?

This paper will be divided into five sections. The first section will briefly outline a socio-technical architecture for analyzing and discussing access to network services, the Access Rainbow, developed by Clement and Shade (2000) and will then sketch some of the problematics of the term 'digital divide', with an overview of Canadian statistics on connectedness. The second section of the paper will quickly outline various attempts by governments and public interest groups to highlight gender concerns related to access and the insertion of gender-based analyses into Canadian ICT policy. The third section will suggest an evaluative framework that incorporates gender into federally-funded community based ICT programmes. Programmes and policies the Canadian government has in place in their pursuit of mobile technologies and how gender, race and abilities are constructed in relation to them will be the focus of the fourth section. And lastly, the fifth section will briefly assess the Canadian government's contribution to the December 2003

WSIS Summit, Canadian civil society contributions to policy input, how and if gender mainstreaming was a part of the Canadian government and civil society agenda, and what initiatives (government and civil society) are being planned for Tunis 2005, and how and if gender is integral to the policymaking process and is an intrinsic facet of policy conceptualizations.

I. DEFINING ACCESS AND THE DIGITAL DIVIDE

In the mid-1990s, ensuring universal access to basic network services was one of the key preoccupations of international public policymakers as they formulated their development of the information infrastructure. In Canada, the official Federal Government response to the Information Highway Advisory Council's final September 1995 report was released in mid-May, 1996. One of the issues the 1995 report, *Building the Information Society: Moving Canada into the 21st Century*, identified as needing immediate attention was the development of a national access strategy whose goals would be to ensure affordable access to the Internet by all Canadians (Canada, Information Highway Advisory Council, 1995; Clement and Shade, 1997).

Access to the internet is multifaceted, encompassing an overlapping mixture of technical, economic, and social infrastructures. An integrated model, the "Access Rainbow" (Clement and Shade, 2000) provides a socio-technical architecture for analyzing and discussing access to network services. A key feature of the model is its illustration of the multi-faceted nature of access. The lower layers emphasize the technical aspects constituting access while the upper layers the explicitly social aspects. All the layers are related to each other and are necessary in order to meet the needs of the content/service layer.

Technical factors include the carriage facilities (those that store, serve, or carry information, such as telephone, cable Internet, satellite, and wireless transmission); physical devices (telephone terminal equipment, modems, cable modems, personal digital assistants, PCs and Web TVs); and software tools (browsers, e-mailers, search engines, authoring and editing tools, groupware). Also key is the content and services that people find useful, such as telephone enhancements, the Web, and e-mail. Content and services need to be affordable, reliable, usable, diverse, secure, and privacy enhancing.

Aspects of the social infrastructure include services and access provision—the organizations that provide network services and access to users, including employers, educational institutions, Internet Service Providers (ISPs), telcos, community networks, and other community organizations. Literacy and social facilitation—the skills people need to take full advantage of information and communication technologies (ICTs)—is crucial. Acquiring these skills is largely a social process involving a combination of formal and informal methods within the context of supportive learning environments. The means for acquiring network skills need to be affordable, readily available, attuned to the learners' varied life situations, and sensitive to language, cultural, racialized, and gender differences. And finally, the central challenge of governance—how decisions are made concerning the development and operation of the information infrastructure—is to foster a democratic process that allows all ICT stakeholders to participate equitably in

policymaking. Table 1 provides an overview of the layers that encompass a holistic view of access.

**Table 1: Access Rainbow Summary
(adapted from Clement and Shade, 2000).**

LAYER	DESCRIPTION	ESSENTIAL ASPECTS	GAPS	KEY POLICY QUESTIONS
<p>7. Governance How decisions are made concerning the development and operation of the infrastructure.</p>	<p>ICT development implicates a wide range of stakeholders who are differently placed in terms of their ability to contribute effectively to the decision-making process. The central challenge of governance is to foster a democratic process that allows all stakeholders to become informed of the issues and participate equitably in choosing among alternatives.</p>	<ul style="list-style-type: none"> * Public consultation process * Research & social impact assessment * New institutions (e.g., National and Regional Access Councils) * Conception of the electronic commons 	<p>Almost everyone is left out except those with a large financial stake in the industry</p>	<ul style="list-style-type: none"> * How to involve the public meaningful in the decision-making? * How to better inform decision making through research? (e.g., impact assessments) * What role for the current regulatory bodies? (e.g., CRTC & FCC) * What new institutions should be created? * How to deal with the pressures of globalization?, e.g. trade and cultural policies?
<p>6. Literacy/ Social Facilitation The skills people need to take full advantage of ICTs, together with the learning facilitation and resources to acquire these skills.</p>	<p>ICTs are complex and still immature technologies requiring a range of skills to use effectively, especially when creating new content. Acquiring these skills is largely a social process involving a combination of formal and informal methods within the context of supportive learning environments.</p>	<ul style="list-style-type: none"> * Basic literacy, numeracy, media savvy * Computer literacy (keyboarding, web navigation) * “Local experts” in workplace or neighbourhood. 	<ul style="list-style-type: none"> * Unemployed * Lower-income * Non-English speakers * Cultural minorities, women * Socially isolated 	<ul style="list-style-type: none"> * How to fund training & education? * What is the role of local community organizations in providing training & support?
<p>5. Service Providers The organizations that provide network services and access to users.</p>	<p>Most users gain access through employers or educational institutions providing a range of access services. Individual subscribers also need affordable, ongoing relations with network service organizations.</p>	<p>Local public access point (e.g., library, schools, hospitals, daycares, post office, community centres).</p>	<ul style="list-style-type: none"> * Unemployed * Low-income * Rural/remote * Ethnic/linguistic minorities. 	<ul style="list-style-type: none"> * How to sustain the host (public/nonprofit institution)? * How do they participate in the decision-making process?

<p>4. Content/ Services The actual information and communication services people find useful.</p>	<p>The central role of ICTs is to facilitate access to a wide range of information & communication services that people find valuable in their daily lives as citizens, producers, consumers, and caregivers.</p>	<ul style="list-style-type: none"> * Electronic mail * Newsgroups * E-Cash * World Wide Web (e.g, weather, job banks, government information, civic/local events) 	<ul style="list-style-type: none"> * Low-income * Non-English speakers * Disabled * Children/elderly * Non-U.S. and other cultural minorities. 	<p>Are the content and services: reliable, usable, diverse (culturally/linguistically/politically), secure, privacy-enhancing, text-only compatible, individually filterable, censorship free?</p>
<p>3. Software Tools The programmes that operate the devices and make connections to services.</p>	<p>Software is the critical ingredient that extends ICTs.. These tools, undergoing rapid development, are being embedded in a growing range of devices.</p>	<ul style="list-style-type: none"> * Web browser * E-mailer * Authoring tool * Encryption and other privacy enablers 	<ul style="list-style-type: none"> * Disabled * Non-English speakers * Low income 	<ul style="list-style-type: none"> * Are major software tools easy for everyone to learn and use? * Are they affordable and interoperable? * Privacy enabling? * Available in languages other than English?
<p>2. Devices The actual physical devices that people operate.</p>	<p>Contrary to the general trend of ‘convergence’ seen in carriage media, we are witnessing a proliferation of devices, with a widening mix of capabilities, prices, and sizes, and increasingly wireless.</p>	<ul style="list-style-type: none"> * Workstation * Net PC * Public kiosk * Universal design 	<ul style="list-style-type: none"> * Low-income * Disabled * Handicapped * Rural 	<ul style="list-style-type: none"> * Are the devices affordable? * Avoid rapid obsolescence? * Are they easy to use, esp. for people with disabilities? * Are the ICTs close at hand to where people need them?
<p>1. Carriage The facilities that store, serve, or carry information.</p>	<p>The internet is the most prominent of digital information infrastructures, with previous analogue devices being converted to digital and wireless.</p>	<ul style="list-style-type: none"> * Telephone (affordable, single-party service, digital dial tone, ADSL, ISDN, phone number portability) * Cable with modem * Internet connection locally 	<ul style="list-style-type: none"> * Low income * Rural/remote (e.g, “high cost areas”) 	<ul style="list-style-type: none"> * New support mechanisms to supplement or replace internal cross subsidization? * Is penetration rates suitable measure of access? * How can one ensure the interoperability of the networks? * What is the minimal ‘essential bandwidth’?

The Digital Divide

The "digital divide" is becoming a more contested and problematic term to describe and understand the "haves" and "have nots" in relation to digital technologies. (Norris 2001; Warschauer 2002; Liff and Shepherd 2004; Wajcman 2004). The "digital divide" has tended to focus almost exclusively on a privileged form of digital technologies, the internet, and on measuring inequities around access. Subsequently, more pressing issues such as labour practices, wireless technologies, software and hardware development, content, and workplace take up are rarely discussed. Our concerns with this concept are threefold:

- 1) representing and theorizing gender and the digital divide;
- 2) disciplining of digital technologies; and
- 3) reframing and providing a more overt politicization of digital technologies.

1) Representing and Theorizing Gender and the Digital Divide

The digital divide was introduced as a concept to describe the haves and have-nots in relation to digital technologies. It has largely become a stand-in for the lack of access to infrastructure, use and content of a specific form of digital technologies, the internet. "Gender" is a set of social relations rather than an attribute of individuals. Most feminist scholars employ a relational approach to gender seeking to understand how gender relations shape, and are shaped by, key institutions such as the paid labour market, the domestic sphere, and unions (Vosko, 2004). While generally speaking gender has been taken up in the context of the digital divide as relational, it has largely been a stand-in for white women. There has been little analysis on the ways in which masculinity and whiteness have shaped and been shaped by digital technologies.

Gender and the digital divide has been taken up by large non-profit and for-profit organizations and corporations such as the United Nations, the World Bank, and Microsoft. An on-line search on this topic will produce numerous and myriad small, medium and large organizations around the world dedicated to addressing gender and the digital divide. Many of these organizations emphasize the need for infrastructure and education to eliminate the digital divide.¹ Despite these disparate, and we would argue non-cohesive efforts, there continues to be a divide between a gender divide between male and female users and in how men and women use the internet.²

¹Such organizations include the UNDP, APC, WOUGNET, UNIFEM, Les Pénélopes, and ITU.

² For recent data on measures of the digital divide in an international context, see the OECD Report, *Benching E-Government A Global Perspective*, 2002, and the UNDP Human Development Report 2004, http://hdr.undp.org/reports/global/2004/pdf/hdr04_complete.pdf.

Table 2: Global Internet Average Usage, Nielsen-Ratings, January 2005

Global Internet Index: Average Usage			
Month of January 2005, Panel Type: Home			
	January 2005	December 2004	% Change
Sessions/Visits per Person per Month	31	35	-11.21
Domains Visited per Person per Month	62	59	+6.32
Web Pages per Person per Month	1,127	1,036	+8.78
Page Views per Surfing Session	36	29	+22.51
PC Time Spent per Month	27:18:25	26:51:55	+1.64
Time Spent During Surfing Session	0:52:16	0:45:40	+14.47
Duration of a Web Page Viewed	0:00:45	0:00:45	0
Active Digital Media Universe	300,869,022	299,485,850	+0.46
Current Digital Media Universe Estimate	454,601,771	451,698,071	+0.64

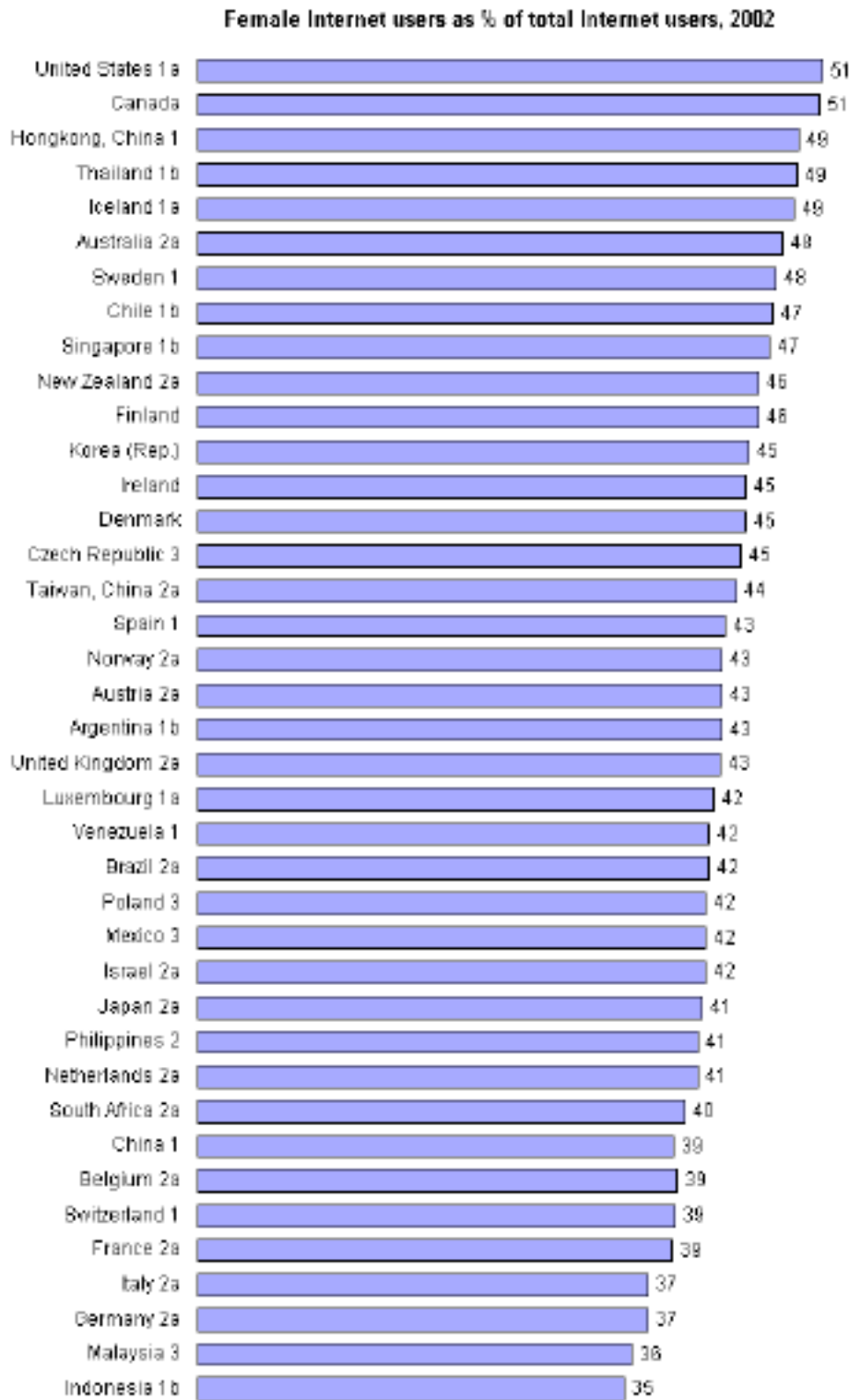
Source: http://www.nielsen-netratings.com/news.jsp?section=dat_gi, accessed February 27, 2005.

Table 3: Household Internet Use at Home by Internet Activity in Canada

	1999	2000	2001	2002	2003
Email	26.3	37.4	46.1	48.9	52.1
Electronic Banking	8.0	14.7	21.6	26.2	30.8
Purchasing Goods and Services	5.5	9.6	12.7	15.7	18.6
Medical or Health Information	15.6	22.9	30.1	32.8	35.6
Formal Education/ Training	9.2	19.0	22.9	24.3	24.9
Government Information	12.7	18.9	25.6	29.2	32.2
General Browsing	24.3	36.2	44.3	46.1	48.5
Playing Games	12.3	18.2	24.4	25.7	27.9
Chat Groups	7.5	11.0	13.7	14.0	14.4
Other Internet Services	10.0	17.7	21.1	24.8	23.5
Obtain and Save Music	7.8	17.8	23.3	24.3	20.6
Listen to Radio	5.0	9.3	12.3	12.3	13.1
Find Sports Related Information		17.3	22.1	23.8	24.6
Financial Information		18.5	22.8	23.5	25.0
View the News		20.4	26.2	27.2	30.2
Travel Information		21.9	27.4	30.4	33.6
Search for a Job		12.2	16.2	18.0	19.6

Source: Statistics Canada, CANSIM, table 358-0006 and Catalogue no. 56F0003X

Table 4: Female Internet Users as % of Total Internet Users, 2002



Note: 1=National source, 2=Nielsen/NetRatings, 3=TNS. a=2001, b=2000.
Source: International Telecommunication Union (ITU).

Table 5: Women and Computing

If the current number of women computer programmers in Western Europe were to double to 94,000, women would still constitute only 7% of the total workforce.

In the US, women make up: 9% of mid- to upper-level IT engineers, 28.5% computer programmers, 26.9% systems analysts, 85% data entry.

No European Union member state has more than 1/3 women researchers in engineering and technology, while the average is

In Asia, women constitute 20% of programmers (mostly in lower-skilled, low- Women value-added positions), while making up the majority of workers in data processing (especially overseas work).

Source:<http://gab.wigsat.org/wsis.html>

These tables are archetypes of the kinds of content we can get about gender and the internet. There is general data about what people do when they are on-line and it is often not disaggregated by gender and representations of female users is almost always in relation to how little they use it. How do we make for a more complex analysis of how Canadians and other nations use these particular technologies? One place to start is an examination of who owns these technologies, who creates, designs and implements them? How do these kinds of sites allow us to open up considerations for gender and the digital divide?

In communication studies, one of the fault lines has been conceptualizing "new" and "old" media. Firstly, one is struck by the degree to which the so-called "old" media are the new media. Thanks to media *convergence* at a number of levels (e.g. technology, business strategy, regulation) many of Canada's most prominent new media companies are owned and controlled by just a few old media conglomerates, such as BCE, CanWest Global, Rogers Communications, and Quebecor.

Table 6: Cross-Ownership of Communications Technologies, Canada, 2003

Figure 11.4 Activities of Canada's top four cross-media ownership groups, 2003		BCE	Quebecor	CanWest Global	Rogers
Radio	No	Yes	No	Yes	
Television	Yes	Yes	Yes	Yes	
Broadcast distribution	No	Yes	No	Yes	
Production companies	Yes	Yes	Yes	No	
Newspapers	Yes	Yes	Yes	No	
Magazines	Yes	Yes	Yes	Yes	
Internet	Yes	Yes	Yes	Yes	
Telephony, networking	Yes	Yes	No	Yes	
Wireless	Yes	Yes	No	Yes	
e-commerce	Yes	Yes	No	No	

Source.

<http://www.parl.gc.ca/InfoComDoc/37/2/HERI/Studies/Reports/herirp02/12-Ch11-e.htm#3>

In addition to its significant publishing, broadcasting, and telephone assets, for example, BCE (Bell Canada Enterprises) has a controlling stake in a variety of new media ventures, from Web portals and internet service provision to broadband infrastructure and e-commerce applications. Such convergence represents a clear attempt by so-called “old” media players to gain control of the new media and to lay claim to the attention of new media audiences. While much has been made of the fragmentation of audiences and the ways in which the new media lower the costs of entry for new players, on-line media consolidation is a reality. In the U.S. market, for example, a mere four companies (AOL-Time Warner, Microsoft, Yahoo, Napster) controlled 50 percent of the time spent on-line by American internet users in 2001.

We do not have similar Canadian figures, but the House of Commons Standing Committee on Canadian Heritage released a report in 2003 which raised concerns regarding the extent of media concentration and cross-ownership in Canada, including the involvement of the four major Canadian conglomerates in significant new media ventures. It remains to be seen what limits, if any, will be placed on this development.

Clearly, our understanding of the digital divide will become more complex when we begin to examine not only how we use it, who uses it, who studies in the field, but also who owns the technology, how it is regulated, and how it is changing our paid and unpaid work and our leisure.

2) Disciplining digital technologies

Another concern about gender and the digital divide has been its settlement in the discipline of communication studies, not that there are relevant frameworks and theories to assist us with understanding and analyzing these technologies. However, there are some larger implications and challenges that need to be considered.

It is our contention that framing digital technologies narrowly around the internet and/or the worldwide web loses the ways in which these technologies have permeated so much of our day-to-day activities from our constant surveillance in corporate spaces to the more complex shift in citizenship practices through the delivery of government goods and services online.

For example, in a recent survey of Canadian social science academic journals, there have been very few articles pertaining to digital technologies, even fewer articles on the policy implications of these technologies, and almost none of their relations in paid work and citizenship (Crow, 2004). Why is this important and how can feminist scholarship can assist with this? We would like to explore a specific example of the relations of paid work and digital technologies that can assist us with enhancing our understanding of the digital divide.

Feminist analyses of digital technology have revealed the profoundly gendered nature of the division of labour within the new information economy. In addition to its contribution to the “feminization” of work in general, many new telemediated forms of non-standard employment, such as home-based call centre and clerical work, are doubly feminized in so far as women are disproportionately overrepresented in them (Menzies, 1996) and the nature of computer use at work also varies by gender. Overall, while more women than men report using computers, (largely a reflection of the prevalence of women in clerical positions) men were more likely to perform a greater variety of tasks than women, particularly those associated with so-called knowledge work. Men were twice as likely to engage in programming tasks, and significantly more likely to use the Internet, produce graphics, or analyze data (Marshall, 2001). We are also witnessing a certain “technological masculinism” within high tech employment itself (Sawchuk and Crow 1995). The effects of the gendered division of labour are manifested in the masculinization of scientific and computer technical expertise, and hardware and software development (Margolis 2002; Cooper and Weaver 2003; Scott-Dixon 2004).

In Canada, female employment in professional, technical, and managerial positions related to ICTs averages approximately 20% in the private and public sectors (Avon 1996, 13; Treasury Board of Canada Secretariat, 2000). Moreover, at the same time as the ICT sector has been experiencing impressive growth, there has been a worldwide decrease in the numbers of women in computer science (Wright, 1997). Women tend to

be concentrated in positions, such as call centre agents, which are relatively low-paying (under \$30,000) (Buchanan and Koch-Schulte 2001, 9-14), while being underrepresented in the much more highly-paid and secure positions in occupations like computer services and software development, where salaries regularly exceed \$100,000. Such gender-based occupational and distributional hierarchies in the new economy are to some extent the reflection of gendered conceptions of the skills used by various workers (Buchanan and Koch-Schulte, 2001; Airman, 2000; Putman and Fenety, 2000; Shalla, 1997).

“Communication” skills highly regarded in the service industry, for example, and particularly in call centre work, are viewed as a “feminine” skill, as something that comes “naturally” to women, and hence is not highly valued and is not translatable into higher wages. Paradoxically, “communication” skills are highly valued in the managerial classes in telemediated work, but not in call centre work. All of these figures suggest that the bifurcation of the labour force and polarization of incomes increasingly characteristic of the new economy will place a disproportionate share of the burden of poorly paid and insecure work upon the backs of women.

While there is little empirical research on the status of racialized peoples in terms of occupation and income in ICT-related forms of work, there is ample evidence pointing to the fact that they, too, tend to occupy the lower regions of occupational and income hierarchies in Canada. As Galabuzi (2001) argues, “adults in racialised groups are less likely than others to be employed in professional or managerial occupations. Instead, many are concentrated in lower-paying, clerical, service and manual jobs” (p. 11).

3) Reframing and politicizing digital technologies

Finally, while the digital divide has provided us with measures of the haves and have-nots in relation to particular forms of digital technologies, the internet—and we do not want to deny that having digital divide measures are not politically and economically significant—we must attend to the ways in which digital technologies are more than manifest in communications only, but for example in paid work. We need to pay close attention to how digital technologies are being conceptualized and the responsibilities we have for their settlement in communication studies. This requires that communication studies scholars need to broaden definitions and analyzes in relation to the digital divide—ultimately, communication studies could benefit from a better integration of feminist analyzes and scholarship. Moreover, in the particular context of digital technologies, we need to continue to look to the places where artists and marginalized groups have organized using digital technologies success stories out of the margins, such as Studio XX and Womenspace in Canada.³ These sites can also provide us with a more overtly political and ultimately a vision for more equitable relations to digital technologies.

³ Studio XX, <http://www.studioxx.org> and Womenspace, <http://www.womenspace.ca>.

II. GETTING GENDER INTO THE AGENDA

During the Heady Days

Early ICT policy formulations, by both public interest groups and the Canadian federal government in the 1990s, recommended that initiatives consider gender as an important category to include in universal access definitions. Although reflected in the final 1997 report of the Information Highway Advisory Council (IHAC), gender mainstreaming of Canadian Internet projects never materialized, nor did the creation of a 'National Access Strategy' as recommended by IHAC's final report. Instead, emboldened by the promise of dot.com ventures, the government switched gears and pushed for a national strategy on e-commerce. Rhetoric changed to creating opportunities in a 'knowledge-based economy'. Canada's 'national access strategy' thus coalesced around Industry Canada's Connecting Canadians agenda.

However, public interest groups and activists have attempted to create a gender-based analysis to Canadian ICT policy. Events, groups, and policy interventions will be briefly outlined below, with Table 7 providing a summary, (see page 17).

Canada was one of the few countries to consider gender equity to the information infrastructure in their public policy deliberations. Several passages in the Federal Plan for Gender Equality, *Setting the Stage for the Next Century*, were concerned specifically with information technology:

...the absence of equity and access-related research [to the information infrastructure] is of growing concern. For example, it appears that women do not use the Internet or Freenet to the same extent as do men. This is of concern, given that much of the information needed to make informed decisions in today's world, and even the decision-making process itself, is being conducted along the cables of cyberspace. Those without access to this new technology that is rapidly transforming the way business is done, will be left out of the mainstream (Status of Women Canada, 1995, para. 270).

The Federal Plan also questioned the effect of competition and market-driven scenarios to develop the information infrastructure: "Rapid global expansion of telecommunications and the deregulation of markets may reverse gains women have made in achieving equality of access to participation in all forms of cultural expression" (Ibid).

With the announcement in 1994 of the federal Information Highway Advisory Council came a spontaneous creation of new grassroots and community groups concerned about ensuring that public interest principles be considered in policy development (Clement, Moll, Shade, 2001). One such group, the Coalition for Public Information (CPI), a non-profit organization founded initially through the Ontario Library Association, formulated, through a series of public consultations, *Future-Knowledge: A Public Policy Framework for the Information Highway* (Skrzeszewski and Cubberley, 1995). Gender issues recommendations were included under their principle of 'Universal Access and Ubiquity:

Women are still under-represented in almost every aspect of computer culture, from programming, to product design, to use of the information infrastructure. The Coalition encourages the development of educational software and training material which is gender-sensitive, takes into account gender differences in learning styles, and avoids sex stereotyping. The Coalition recommends the development of online gender issue information services. Such services could include listings of technology training and applications opportunities for women. The Coalition recommends the development of on-line harassment guidelines which would govern the use of the Internet by everyone who receives an Internet account. These guidelines would also include grievance procedures for complaints of on-line sexual harassment.

IHAC's final report, *Connection, Community, Content*, also recognized that gender and social barriers need to be removed to ensure equitable and universal access to the information infrastructure:

Women's issues and concerns...must be addressed. Some of these, such as safety, privacy, and security, could be largely addressed by early implementation of related recommendations...women have to be able to use the Information Highway and contribute to the content carried. The government can raise the awareness of content and hardware providers and can also implement public awareness campaigns targeted to women (Canada, Information Highway Advisory Council, September 1995).

With the release of the federal government's response to the IHAC final report, the government reiterated their commitment to ensuring universal access to all, including an examination of gender as one factor affecting access. Two specific recommendations were advanced:

Rec.13.21: Industry Canada, Human Resources Development Canada, Statistics Canada and other government departments should conduct and/or support the research necessary to identify how gender, age and other social factors create differences in participation of the Information Highway.

Rec. 13.22: Where differences in opportunity are identified, the federal government with other stakeholders should develop an appropriate response to deal with these differences (Canada, Information Highway Advisory Council, September 1995).

The Ad Hoc Committee for the Workshop on Access to the Information Highway was formed in January 1997 as an adjunct to a workshop, *Developing a Canadian Access Strategy: Universal Access to Essential Network Services*, held in Toronto February 6-8, 1997. This workshop brought together academics, policymakers, activists, and community groups to debate specific aspects of universal access from a public interest perspective, including the role of electronic public spaces, essential services, and support mechanisms (Information Policy Research Program, 1996-98). In particular, the Ad Hoc Committee was formed to allow greater participation in the Universal Access workshop

by several women's organizations that were utilizing the internet in diverse ways in the women's community.

With financial support from the Women's Programme of Status of Women Canada, the Ad Hoc Committee invited three representatives from the Canadian women's community to participate in the workshop: Professor Ellen Balka of Simon Fraser University, whose work has focused on the use of the electronic networking by feminists; Madeline Boscoe of the Canadian Women's Health Network, an online health resource for women; and Scarlett Pollock of Womenspace, a grassroots organization committed to ensuring equity to the Internet for women and women's groups.

A background report was written to educate policymakers and women's group on the complex issues surrounding universal access, the internet policy climate in Canada, and the gendered implications of access (Shade, 1997). Some of the particularities of gender which influence access identified by the Ad Hoc Committee included economic factors, employment and workplace issues, content and the need for the creation of online gender issue information services, workplace issues, and the domestication of cyberspace. Appendix I provides suggestions made by the Ad Hoc Committee for gender equity to the internet. Consulted were the barriers to access for Canadian women's organizations identified by Shade (1996) for the Women's Programme, Status of Women Canada. These can be found in Appendix II.

IHAC critics commented that its composition reflected industry and corporate interests, with little or no representation by the public interest community. This was a techno-economic imperative that championed a competitive and market-led perspective, rather than a socio-technical tradition that considers the needs of a broadly defined society: citizens and civil society, the non-commercial sector, the market, and the government. IHAC's recommendation for a national access strategy became subsumed by the Connecting Canadians agenda. Led by Industry Canada, this consisted of several programmes for Canadian communities and international projects (Rideout, 2003).

Government initiatives were also preoccupied with e-commerce, through the Electronic Commerce Task Force in 1998, and broadband, through the Broadband Task Force in 2001. Given this intensity of focus on technical issues, from high-speed Internet access to cryptography policy, considerations of gender, including a gendered analysis of government led programmes, fell by the wayside.

After and During the Bust

Beijing +5 Review

The final *Beijing Declaration and Platform for Action* from the Fourth World Conference on Women reiterated the need for women, especially in developing countries, to enhance their skills, knowledge and access to information technology. Although the right to communicate was an underlying premise of many of the objectives, specific objectives focused on women and the media. Strategic objective J.1 of the *Beijing Declaration* identified the need to "increase the participation and access of women to expression and

decision-making in and through the media and new technologies of communication.” A series of actions called on government, NGOs, the media, and private industry to encourage and recognize women’s electronic networks; to promote and develop educational and training programmes for women in new communication technologies; to encourage the use of computer networking as a means towards strengthening women’s participation in democratic processes; and as a means of encouraging alternative media that promotes women’s voices.

In 1999–2000, country-wide assessments of the *Beijing Platform for Action* were conducted through the Beijing+5 review. In general, most countries were concerned that the issues raised in Section J still remained, while new ones, such as intense telecommunication deregulation, had emerged. Canada’s report noted that while more women were online, women’s representation in positions of decision-making in high-tech firms was still low. And Canada, through its Canadian International Development Agency (CIDA), became involved in the International Telecommunications Union (ITU) Task Force on Gender Issues, whose goals are to promote gender mainstreaming of telecom programmes and policies (Status of Women Canada, 2000; <http://www.itu.int/ITU-D/gender/documents/documents2000.html>).

47th UN Commission on the Status of Women

In March 2003 the Commission on the Status of Women (CSW) held its forty-seventh session in New York, with one of their thematic issues: “participation and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women” (United Nations, Division for the Advancement of Women, 2003). The agreed upon conclusions, known as draft resolution III, included a reiteration of the *Beijing Platform for Action’s* statement on media and ICTs, noted the continued disparity in access to ICTs for women in developing countries, and called for continuing efforts to increase women’s access to and participation in media and ICTs: “a focus on the gender dimensions of information and communication technologies is essential in order to prevent and combat any adverse impact of the digital revolution on gender equality and the perpetuation of existing inequalities and discrimination, including the sexual exploitation of women both through traditional media and new technologies” (Commission on the Status of Women, 2003).

The resolution encouraged governments, organizations, and institutions to initiate legislation, policies, regulatory mechanisms and programmes to integrate gender perspectives into their programmes; to create monitoring and accountability mechanisms to ensure implementation of gender-sensitive policies and regulations in consultation and collaboration with women’s organizations, gender equality advocates, and women IT specialists; to encourage regulatory bodies to promote women’s ownership, control, and management in the media and IT sector; to support research into all aspects of women and ICTs, such as uses and barriers to access, particularly for marginalized women; to monitor educational opportunities for girls and women in ICT; to encourage gender-sensitive training; and, to encourage use of ICTs by women for economic development.

Taking its lead from the 47th UN Commission on the Status of Women, the Canadian theme for the 2003 International Women's Week was *World- Wide Women: Surfing the Digital Revolution!* Status of Women Canada's fact sheet on Women and Information and Communication Technologies (ICTs) remarked that "while ICTs bring important economic and social benefits, this revolution also poses challenges and risks." Their fact sheet illustrates the positive aspects of ICTs for women and women's groups: communication nationally and internationally with like-minded groups; quick dissemination of information of a personal or political nature; the creation of networks and communities, local and global; gaining access to a wide variety of information; and use of the internet for social activism and mobilization – especially seen with effective use in the social justice movement and the then-burgeoning peace movement against the war in Iraq (Status of Women Canada, International Women's Day, 2003).

Notably absent, however, were any recommendations towards gender mainstreaming of Canadian programmes operating under the 'Connectedness' agenda of the government. However, a vocal and energetic women's organization, Womenspace, which first became active in the Ad Hoc Committee discussed above, was chosen as the non-profit group to represent Canada for the UN Commission. Womenspace has been a tireless advocate for women's equality rights on the Internet, through a variety of activities over the years, including a national Women's Internet Conference, the Women's Internet Campaign, producing material on how women can use the Internet for activism, and the E-Quality project, which called for the creation of a 'Women's Government Portal' as part of the Government Online project (see www.womenspace.ca).

Prior to the UN meeting in New York, Womenspace undertook a consultation with a wide faction of Canadian women's organizations, done both electronically and through an offline strategy of "phone calls and faxes, including tapping into fax trees, print advertisements, attending meetings, and asking specific groups to take their members to a public access site." Recommendations in the consultation report were themed under gender analyses, need for inclusion, women-based strategies, resources for women's equality-based organizations, violence against women, and e-government. Notable are the recommendations for encouraging civic participation by women's group, and for more active consultation by the federal government with women's organizations in designing government informational portals (Womenspace Consultation Report, 2003).

While cautiously optimistic about the UN Resolutions, Womenspace recommended further research on women and ICTs, including the impact of ICTs on work, including outsourcing and telework; a gendered approach to e-government, including how women can use the Internet effectively for civic participation; the intersection of privacy and gender; use of the Internet by girls and young women; issues of cybercrime, including online pornography and sexual tourism; women's human rights and the Internet; effective e-learning strategies for girls and women; and how open source software can be used in technology transfer to developing countries (Womenspace Action Issues, 2003).

Table 7: Getting Gender into the Agenda: A Summary of Key Activities in Canada, 1995-2005

Year	Events	Funders/ Organizers	Groups	Objectives	Outcomes
1995	Fourth World Conference on Women	UN sponsored	Governments and government representatives from around the world. Diverse NGO groups and academics.	Reiterated need for women, especially in developing countries, to enhance their skills, knowledge and access to information technology	<i>Beijing Declaration and Platform for Action</i> , Section J.1
1995	Federal Plan for Gender Equality	Status of Women Canada		Emphasized ICT access issues; questioned the effect of competition and market-driven scenarios to develop ICTs.	<i>Setting the Stage for the Next Century</i> , 1995.
1995	A series of public consultations to debate development of internet.	Initially funded through Ontario Library Association	Coalition for Public Information	In 'Universal Access and Ubiquity' section created gender equity recommendations.	<i>Future-Knowledge: A Public Policy Framework for the Information Highway</i> (Skrzeszewski and Cubberley, 1995).
1995	Information Highway Advisory Council	Industry Canada	'Blue Ribbon' Panel, little civil society representation	Recognized that gender and social barriers need to be removed to ensure equitable and universal access to ICTs	<i>Connection, Community, Content</i> , final report, September 1995.
1995	Canadian government response to IHAC report.	Canadian federal government		Rec 13.21: Industry Canada, Human Resources Development Canada, Statistics Canada and other government departments should conduct and/or support the research necessary to identify how gender, age and other social factors create differences in participation of the Information Highway.	<i>Building the Information Society: Moving Canada into the 21st Century</i> , 1995.
1995	PAR listserv created (Policy Action Research List)	Initiated by federal Canadian Advisory	Open to all.	To provide a forum for women's studies issues.	Ongoing listserv.

		Council on the Status of Women, and transferred to the University of New Brunswick and then a SSHRC Standard Grant.			
1996	Report on use of internet by women's groups	Status of Women Canada	Diverse English-Canadian and Francophone women's groups	Survey of how Canadian women's groups are using the internet; identification of access barriers.	<i>Report on the Use of the Internet in Canadian Women's Organizations</i> , LR Shade, 1996.
1995	Gender Based Analysis	Status of Women Canada		Setting the Stage for the Next Century: The Federal Plan for Gender Equality	http://www.swc-cfc.gc.ca/pubs/066261951X/199508_066261951X_1_e.html
1996	Gender Analysis and Policy (GAP) Directorate	Human Resources and Development		facilitates the integration of gender-based analysis in the policy and programme development of the Department. It provides expertise and advice on the process of gender-based analysis, and on differences in men's and women's economic and social experiences as they relate to the activities of the Department.	http://www.swc-cfc.gc.ca/pubs/0662274180/index_e.html
1997	Guide to using the internet for feminist organizations.	CRIAW – Canadian Research Institute for the Advancement of Women	CRIAW member organizations.	Handbook provides overview of computer networking in women's organizations.	<i>Computer Networking: Spinsters on the Web</i> , Ellen Balka, 1997.
1997	<i>Developing a Canadian Access Strategy: Universal Access to Essential Network Services</i> , Toronto Feb.6-8 workshop.	Industry Canada, Women's Programme, Status of Women Canada. Information Policy Research Project, Univ. of Toronto	Ad Hoc Committee for the Workshop on Access to the Information Highway (Ellen Balka/Simon Fraser Univ., Madeline Bosco/Canadian Women's Health Network, Scarlett Pollock/WomenSpace	Consider gender access issues with input to IHAC.	<i>Using A Gender-based Analysis in Developing a Canadian Access Strategy: Backgrounder Report</i> , prepared by LR Shade, April 1997.

1997	Women's Internet Conference, Ottawa	Womenspace (funding from Status of Women Canada)	Diverse women's groups from around Canada	Discuss equality issues related to the internet.	Conference book on how women's groups are using the internet.
1997	The Janus Project: New Learning Technologies: Promises and Prospects for Women	CLOW – Canadian Congress for Learning Opportunities for Women	Conference in Montreal, 1997.	Review impact of new learning technologies for women and women's groups.	New Learning Technologies: Promises and Prospects for Women, A Discussion Paper prepared for CLOW by Jennifer O'Rourke and Linda Schachter, March 1997; Final report of Janus Project.
1998	Women and the Knowledge-Based Economy and Society Workshop	Status of Women Canada, Policy Research Secretariat	Federal policymakers from diverse departments, academics.	Identify & discuss the potential implications of KBES for women; establish horizontal linkages on gender issues between relevant federal government departments. shape directions for further policy research and development..	Paper by Heather Menzies, <i>Women and the Knowledge-Based Economy and Society</i> , 1998; workshop report.
1999-2000	Review of Beijing +5	Status of Women Canada.	Report included data from MediaWatch, a nonprofit women & media group.	Assess Canada's progress in implementing the <i>Platform for Action</i> .	<i>Canada and the United Nations General Assembly Special Session Beijing +5: Fact Sheets</i> , 2003.
1998-2004	ITU Task Force on Gender Issues	CIDA – Canadian International Development Agency		Facilitate use of ICTs in developing countries; create gender-sensitive indicators & sex aggregated data; private sector partnerships; gender mainstreaming in programmes.	Gender Mainstreaming in ITU Activities, various Resolutions (see http://www.itu.int/ITU-D/gender/background/)
2003	47th UN Commission on the Status of Women	UN. Funding through Status of Women Canada to be Canadian NGO rep.	Womenspace as NGO rep for Canada. They initiated electronic & offline consultation with array of women's groups.	One of the thematic issues: "participation and access of women to the media, & information &	Draft resolution III, included a reiteration of the <i>Beijing Platform for Action's</i> statement on media and ICTs, noted the continued disparity in access to ICTs for women in developing countries, and called for continuing

				communication technologies & their impact on and use as an instrument for the advancement & empowerment of women”	efforts to increase women’s access to and participation in media and ICTS. Womenspace. (2003). Womenspace Consultation Report, <i>Women and the Internet: Participation, Impact, Empowerment and Strategies</i>
2003	International Women’s Day theme - <i>World-Wide Women: Surfing the Digital Revolution!</i>	Status of Women Canada	Various women’s groups and university departments conducted activities related to this theme.	Promoting use of ICTs for women and women’s groups empowerment.	Various factsheets related to women and access.
2003	WSIS – World Summit on the Information Society	Canadian government with input from WSIS Gender Caucus	WSIS Gender Caucus	Inclusion of gender equity paragraph into WSIS Draft Principles	Insertion of Para 11A: “a focus on the gender dimensions of ICT is essential not only for preventing an adverse impact of the digital revolution on gender equality or the perpetuation of existing inequalities and discrimination.
2005	Paving the Road to Tunis - WSIS II: Canada’s Civil Society Views on the Geneva Plan of Action and the Prospects for Phase II.	Canadian Commission for UNESCO	Various civil society groups	Creation of a civil society communiqué	Gender equity statements in civil society communiqué
2005	Telecommunication Policy Review Panel	Mandated by Industry Canada	Submissions invited from industry groups, telcos, civil society	First and second round submissions; public hearings	Some submissions recommended access programs that take into account gender (CRACIN, Womenspace)

III. GENDER MAINSTREAMING?

Connecting Canadians Agenda

Federal programmes and policies designed to meet the needs of the digital divide have been organized along six pillars. Initiated in the mid-1990s, programmes have been continually refined and in some instances discontinued. Its not-so-modest goal is the creation of Canada as the most ‘connected nation on earth.’ Table 3 details elements of the Connectedness Agenda. Note that many of the programmes, such as SchoolNet and the Community Access Programme, have in recent years endured drastic budget cuts, with the sunsetting of many of these programmes imminent.

Table 3: Canada’s Connectedness Agenda

Canada On-line (<http://www.connect.gc.ca/>)

Provides various community access programmes to the Internet

- Community Access Programme (CAP) – community access sites for rural, remote, and urban communities
- SchoolNet and First Nations SchoolNet – connecting K-12 schools to the Internet
- Computers for Schools – Provides schools and libraries with surplus and donated computers
- LibraryNet – connecting public libraries to the Internet
- Volnet – Voluntary Sector Network Support Programme – provides Internet connectivity to voluntary organizations
- Skillnet.ca – Career and recruitment network

Smart Communities (<http://smartcommunities.ic.gc.ca/>)

Partnerships with communities and local industry to support pilot projects that use the Internet to promote community economic development, stimulate productivity and innovation, and foster demand for high technology goods and services. Demonstration projects across the country encompass Aboriginal, francophone, and geographic diversity.

Canadian Content On-line (<http://www.connect.gc.ca/en/400-e.asp>)

Creation of several programmes that digitize Canadian content. Includes Digital Collections, Aboriginal Digital Collections, Franccommunautés virtuelles, and SchoolNet Multimedia Learnware.

Electronic Commerce (<http://www.connect.gc.ca/en/500-e.asp>)

Creation of domestic policy and legislative framework (privacy, security, digital signatures, standards, public key infrastructure, tax neutrality, intellectual property and consumer protection) for the promotion of electronic commerce. Industry Canada's Electronic Commerce Task Force was integral in this development (<http://e-com.ic.gc.ca/>).

Government On-line (<http://www.connect.gc.ca/en/600-e.asp>)

Creation of a vast array of government services online, including industry and trade material to the provision of government services.

Connecting Canada to the World (<http://www.connect.gc.ca/en/700-e.asp>)

Promotion of a brand image of Canada as a key player in the development and deployment of Internet technology. Two programmes include NetCorps Canada International (youth employment strategy wherein they go to developing countries to set up ICT technologies); and the Office of International Partnerships (links foreign governments, agencies and companies with Canadian companies, organizations and entrepreneurs who develop and apply information and communications technology to learning and training; showcases SchoolNet).

While several hundred million dollars have been spent in these programmes in support of some 10,000 community ICT initiatives, there has been remarkably little evaluation. Currently, there is one federally funded research project that is attempting to do such an evaluation, the Canadian Research Alliance for Community Innovation and Networking (CRACIN), a three-year project funded by the Canadian Social Science and Humanities Research Council's (SSHRC) Initiative for the New Economy. It brings together leading Community Informatics researchers from across Canada and internationally to review the progress of community-based ICT development in the context of, among other things, the main Canadian government programmes promoting the development and public accessibility of Internet services. Central issues to be explored include the sustainability of community networking initiatives, along with an examination of how Canadian community-based ICT initiatives contribute to: the amelioration of 'digital divides'; the enhancement of economic, social, political and cultural capabilities; the creation, provision, and use of community oriented learning opportunities, especially for locally relevant employment skills; and the development of community oriented cultural content, open source software, learning tools and broadband infrastructures.

The over-arching goal of CRACIN is to begin the systematic documentation and assessment of the development of Canadian community-oriented ICT capacity and services as they contribute to local learning, to the strengthening of relations in and

between communities, and more generally to community-focused social and economic development. The research includes a coordinated series of in-depth structured case studies of selected Canadian CN initiatives that have received significant funding from a variety of federal government programmes. These studies are being undertaken in collaboration with community partners using a participatory action research approach. In addition, there will be thematically focused studies providing research linkage across several case study sites (Clement, et. al, 2004; see www.cracin.ca)

Telecommunications Policy Review Panel (TPRP)

The TPRP (www.tprp.ca) is a government appointed panel of “eminent Canadians” whose task is “to review Canada’s telecommunications framework”. Initiated in June 2005, the panel has been asked to “make recommendations on how to move Canada toward a modern telecommunications framework in a manner that benefits Canadian industry and consumers.” Under the auspices of Industry Canada, Canadians have been invited to submit comments on a consultation paper surrounding the broad areas of regulation, access, and ICT adoption. The process consists of two rounds of submissions, and public symposiums in Ottawa and the Yukon, with a final report due by December 2005.

The Canadian Research Alliance for Community Innovation and Networking (CRACIN) first-round submission to the TPRP⁴ reiterated that a persistent and multifaceted digital divide continues to exist, despite the efforts of government, communities and the private sector over the last decade. The likelihood that “access gaps will be addressed by market forces is extremely remote. Canada’s national ICT infrastructure must therefore reflect the following principles and considerations to ensure universal access and effective use by Canadians citizens.” CRACIN recommended:

- Universally available and affordable access to network technologies for all Canadians who wish to use them, including those in rural and remote regions;
- Appropriate programs and policies responding to the diversity of access needs within Canada’s multicultural population (i.e. First Nations, francophones, immigrants, women, youth);
- The incorporation of affordability and usability considerations into the design criteria of network technologies and devices such as computers and software;
- Digital content and applications responding to the opportunities and needs of Canadians for everyday public service applications of network technologies in such areas as mail, health services, government information and services, emergency response, training and employment, active citizenship;

⁴ See www.fis.utoronto.ca/research/iprp/cracin/CRACIN_TPRC_Submission.pdf

- An intellectual property regime that fosters broad-based contributions and widespread knowledge sharing;
- Support for sustainable community-based ICT-enabled social and economic innovation;
- Design of Canada's digital information and communications infrastructure as a public resource and commons while ensuring robust protection of personal information and privacy;
- Support for digital literacy (i.e. basic, technical, information and media literacy) as the basis of genuine access and effective use;
- A meaningful role in ICT policy making for Canadian Civil Society; and
- A democratic, transparent and participatory design and governance of Canada's information and communications infrastructure.

Womenspace⁵ made the following recommendations in their second-round submission:

- 1) We recommend the creation of a framework that delineates strategies for an inclusive and enabling online environment that invites participation from those members of society that have traditionally been excluded;
- 2) We need appropriate funding, programs and policies that respond to the diverse access needs of Canada's population (i.e. Women, youth, francophone, immigrants, First Nations);
- 3) The government should act immediately to create a women's portal that provides women-centered information, activities and educational tools;
- 4) The government should continue to work towards universal connectivity so as to accommodate women living in rural and/or isolated locations;
- 5) The government should act immediately to expand the number of public kiosks in safe locations where women will not be intimidated, inconvenienced or harassed;
- 6) The government should act immediately to engage women's groups and feminist organizations in an in-depth consultation process concerning the gendered dimension of the GOL project;
- 7) The government must work with women's organizations and anti-violence organizations to end online violence against women;

⁵ See [http://www.tprp.ca/epic/internet/intprp-gecrt.nsf/vwapj/Womenspace.doc/\\$FILE/Womenspace.doc](http://www.tprp.ca/epic/internet/intprp-gecrt.nsf/vwapj/Womenspace.doc/$FILE/Womenspace.doc)

- 8) The government must ensure online privacy; and
- 9) The government must act to end online hate literature including misogyny, anti-lesbian and gay material, racism and other forms of bigotry.

In the latest federal government telecommunications policy review, there were no representations from women's organizations and few submissions mention gender and/or race in relation to telecommunication policies.⁶

Whither Gender?

Gender analysis has become a necessary component of many ICT assessment programmes, particularly for those in developing countries.⁷ For instance, the World Bank's seminar series, Gender and the Digital Divide, looked at the impact of ICTs on gender relations and innovative uses of ICTs by women in developing countries (see World Bank's Gender and the Digital Divide Seminar Series <http://www.worldbank.org/gender/digitaldivide/>). Telecentre evaluation has come under a gendered lens (Holmes 1999), and has become a key component for project funding. Drawing from their years of extensive experience training and developing ICT programmes for women, the Association for Progressive Communication's Women's Networking Support Programme has developed GEM – the Gender Evaluation Methodology (see http://www.apcwomen.org/gem/gend_analysis.htm). Already this programme has been adopted by many international women's organizations.

Thus, gender mainstreaming has become a key element of many ICT programmes. Gender mainstreaming involves “the *process* of both assessing the implications and effects of communications related projects and policies on women and men, as well as *formulating* and *implementing* context-specific strategies that aim to better address the needs of women and men, improve their well-being, and facilitate their participation in the development process”(Bisnath, 2004).

A gender analysis poses questions related to the design, development, and management of ICT programmes. It creates gender indicators, both qualitative and quantitative, and ideally, can have an impact on policy. Some of the areas it investigates include the following:

Policy and programmes: Were women & women's groups consulted, in the beginning, about the programme development and policy goals? How were they consulted? What projects were not funded?

Management: Are women(s) groups seeking out funds for programmes? Are

⁶ Telecommunications Policy Review Panel,
http://www.telecomreview.ca/epic/internet/intprp-gecrt.nsf/en/h_rx00004e.html.

⁷ The Canadian government committed itself to Gender Based Analysis in accordance with Beijing's *Platform for Action*, 1995, http://www.swccfc.gc.ca/pubs/066261951X/199508_066261951X_7_e.html.

community groups including women(s) groups? Are women involved in the daily management of the programmes? How? In what function?

Mission and goals: Are services meeting women(s) groups concerns and needs? What are gendered uses of the programmes?

Training: What is the gender composition of 'clients' trained? Who provides training? Is there 'gender-sensitive' training? Does it target the various social and economic needs of women?

Content Issues: Who's driving the content? Who facilitates the creation of local content? Are women information producers? Is local and indigenous knowledge made available online?

Literacy & language issues: Are the needs of women from different cultures and ethnic backgrounds being met? Are there formats for multiple languages?

Universal usability: Is information presented in a manner that facilitates access for all citizens, regardless of physical or other disabilities?

Women and the 'New Economy': Are women given the opportunity to train as technologists?

Networking & advocacy: Are women taught to use the Internet for activism? Are they using the Internet to extend the public sphere and contribute to civic discourse?

While gender analysis of ICTs has opened up new possibilities for understanding and mobilizing around digital technologies, it continues to be marginalized in national and international governments' and NGOs; agendas.⁸ Most recently, Lee (2004) in a review of thirty years of UNESCO policies on women/gender and telecommunications concluded that economic conditions and new forms of technologies need to be at the forefront of their considerations of gender—one for which we have ample evidence in feminist research. How do we move to this level?

IV. MOBILE TECHNOLOGY POLICIES

Finally, another critical issue relevant to the digital divide is the fast-paced development of mobile technologies. Although Canada has one of the most developed, inexpensive and expansive cable communication systems, mobile technologies have not been as popular as they have been in other nations such as Japan, Great Britain and India. However, it is clear that mobile technologies such as WiFi may be a critical development in creating and maintaining public spaces and citizenship practices. To date, the Canadian government has framed wireless communications largely in terms of the market and

⁸ See Sue Curry Jansen's *Critical Communication Theory: Power, Media, Gender and Technology*, 2002 and Leslie Regan Shade and Barbara Crow's, "Canadian Feminist Perspectives on Digital Technologies," *Topia: Canadian Journal of Cultural Studies*, Spring 2004.

consumption. Policy issues tend to focus on privacy, copyright, regulation, and health care issues over a range of government departments and there is little consensus amongst and between departments on what constitutes 'wireless communications.' Some initiatives have been made on the part of Heritage Canada⁹ to fund research exploring relations between industry, the academy and artists, but these are marginal interventions. Few of these programmes have an overtly gendered component and constitute a small part of government budgets. Other nations have been more assertive in understanding the latest developments in digital technologies in their wireless manifestations, but these too have largely been in a market context.¹⁰

It is our position that we are yet at another technological juncture and as the digital becomes more mobile and wireless communications become normative, we must not forget or repeat women and people of colour's absence from the development and implementation of the internet. Gender and race need to be taken into consideration in the design, content and use of wireless communications. We argue that there must be a more concerted effort on the part of federal government and women's organizations to make demands for public infrastructure for wireless communications.

V. TOWARDS TUNIS

Canada and WSIS

WSIS 1 was critiqued for its lack of transparency in how the Canadian government involved civil society and the wider public (Moll,Shade, 2004). Public consultation was conducted through the Canadian Commission for UNESCO (CCU) and Industry Canada. The CCU operates under the auspices of the Canada Council for the Arts (CCA) as a forum for governments and civil society, and to catalyze the participation of Canadian organizations and committed individuals in UNESCO's mandated areas: education, natural and social sciences, culture and communication. The CCA, reporting to Parliament through the Minister of Canadian Heritage, is a national arm's-length agency which fosters the development of the arts in Canada through grants, services and awards to professional Canadian artists and arts organizations, as well as administering scholarly awards, and having under its aegis the Public Lending Right Commission and the Canadian Commission for UNESCO. The CCU, the federal civil society representative at WSIS, is, in fact, one of the federal government's own agents. Gurstein commented that:

Why this is of more than academic interest is that the thousands of community based ICT initiatives and local ICT activists (Canada's ICT-involved civil society) have been ignored in the creation of the Canadian response to the WSIS and NO - - that is NO -- funding has been available to support Canadian civil society involvement in the WSIS process... Given that there is, in Canada, few if any

⁹ See Canadian Heritage, New Media section, http://www.pch.gc.ca/pc-ch/sujets-subjects/arts-culture/media/index_e.cfm

¹⁰ For an interesting model is integrating industry, government and cultural groups, see the Finnish Telecom Policy. Ministry of Transport and Communications Finland, Programmes and Strategies, 2003, <http://www.mintc.fi/www/sivut/dokumentit/julkaisu/julkaisusarja/2003/Finnish%20Telecom%20Policy.pdf>

non-governmental sources of support for participation in activities such as WSIS this has meant that the Canadian presence at the WSIS has for the most part consisted of presentation of (self-serving) governmental 'success stories' rather than the rather more useful and authentic experiences of those who have been working for years in the field in these areas (e-mail communication, October 11, 2003).

In 2003, CCU organized seven regional consultations to compile a Canadian profile of ICT use and barriers to use, with results fed back to the government for inclusion in their final summit position.

The final report of the CCU Roundtables, *Information, Communication, and Knowledge: Building Contemporary Societies*, reflects the views of invited participants who represented the sectors that CCU wished to target: women, youth, Aboriginals, seniors, and peoples with disabilities. In some instances, groups or academics advised CCU of their interest in participating, and were thus invited. The report offers some critical commentaries on the WSIS discourse and agenda. Participants insisted that information society values should be considered, and expressed concern that the WSIS agenda “seemed to have been drawn up to suit the development needs of the telecommunications industry rather than for the development of communities and individuals.” Ethical issues flagged included commercialization and the appropriation of indigenous knowledge. Connectivity also must go beyond mere technical imperatives to include freedom of expression and human rights. Promotion of cultural diversity, including linguistic diversity, such as Aboriginal languages, was also raised as a compelling concern.

Given its history of leading the Information Highway Advisory Council in the mid-1990s, its Connecting Canadians agenda, and its coordination of international public and private sector and civil society group practices with ICT development (including the International Development Research Centre, the Institute for Connectivity in the Americas, and Connectivity Africa) Industry Canada was chosen to be the coordinator for the government consultation on WSIS. Public input was solicited through a mail-out of a brochure to interested parties known to Industry Canada and through a website. The time-frame for consultation was short, as input was solicited over the summer of 2003 with feedback due back to Industry Canada by September 5th. Consultation questions asked respondents to prioritize their thoughts on the critical components identified and described by Industry Canada, identify best ICT practices and the best Government of Canada practices, offer suggestions for partnership improvements, and describe how ICTs have contributed to community and/or quality of life. A question was also asked on how one's organization would like to contribute to the WSIS process, with the caveat that no financial support was available to assist individuals or organizations to attend the Summit.

Given their lack of “connectedness” to social concerns, perhaps it is no surprise that a grand total of 16 people responded to Industry Canada's call for public participation through the website. There was no attempt made to consolidate or analyze those views. There was no indication on the site about how those views were incorporated into the

Government's position.

Despite many of the laudable commentaries that emanated from the CCU roundtables, we must still ask whether the nature of public consultation has been sufficient. Canadians were invited to nominate themselves as either a representative of civil society or as an academic for a WSIS delegate position, with the ultimate decision made by CCU and the Department of Foreign Affairs and Trade (DFAIT). Eventually, there were three non-governmental civil society members among the almost 100 strong official Canadian delegation at Prepcom3 and the Geneva Summit. In keeping with the astonishingly little to no media coverage of the entire event, there was no official announcement about these delegates.

Gender Challenges

The World Summit on the Information Society (<http://www.itu.int/wsis/>) should have been an opportunity for diverse women's voices to be heard with respect to their active participation in the ongoing design, development, and diffusion of the Internet. Of concern to many was the WSIS process itself, which was bureaucratic, favoring industry groups and governments, and posing restrictions on the nature and involvement of civil society groups.

Leading up to the Summit in December 2003, were concerns about the uncritical nature of the Draft Declaration and Action Plan. The APC and the Women's Networking Support Programme argued that WSIS documents failed to reflect a critical awareness of gender, and called for an intersectional approach that would account for women in different socio-economic, geographical, racial, and ethnic contexts. Such an approach would acknowledge that gender inequality is central in broader social inequality, build a broader consensual platform, place people at the center of development, respect diversity, call for the use of ICTs for peace and human development, place human rights and women's human rights as central principles, and support local solutions to ICT development, including use of open source, and alternative means of communication (Association for Progressive Communication, 2003).

The WSIS Gender Caucus¹¹ has focused on advocacy and lobbying on six key recommendations for action, based on the fundamental areas where gender integration and the empowerment of girls and women in the Information Society are most important. These recommendations include:

1. Gender must be a fundamental principle for action;
2. Equitable participation in decisions shaping the information society;
3. New and old ICTs in a multimodal approach;
4. Designing ICTs to serve people;

¹¹ WSIS Gender Caucus was formed during the African regional preparatory conference, May 2002. It "is a multi-stakeholder group consisting of women and men from national governments, civil society organizations, non-governmental organizations, the private sector and the United Nations system. The strategic objective of the WSIS-Gender Caucus is to ensure that gender equality and women's rights are integrated into WSIS and its outcome processes," <http://www.wsis.org>.

5. Empowerment for full participation; and
6. Research analysis and evaluation to guide action.

During the various deliberations surrounding the development of the WSIS Draft Principles, many women's groups were adamant that Paragraph 11A, which dealt with gender equity and was proposed by the Government of Canada, be included. In September 2003 a t-shirt campaign was initiated by the NGO Gender Strategies Working Group. The t-shirts contained the message "WSIS has a missing paragraph" (on the front) and the text of paragraph 11A (on the back) and worn by several NGO delegates.

Add: New Para 11A

A focus on the gender dimensions of ICT is essential not only for preventing an adverse impact of the digital revolution on gender equality or the perpetuation of existing inequalities and discrimination, but also for enhancing women's equitable access to the benefits of ICT and to ensure that they can become a central tool for the empowerment of women and the promotion of gender equality. We therefore resolve to establish policies, programmes and projects that consider, identify and analyse the gender differences and inequalities in the access to and use of ICT and that these are fully addressed

(Language proposed by Canada during the WSIS Intersessional Meeting in Paris from 15-18 July 2003).

The WSIS Gender Caucus focused on advocacy and lobbying on six key recommendations for action, based on the fundamental areas where gender integration and the empowerment of girls and women in the Information Society are most important. These recommendations include:

1. Gender must be a fundamental principle for action;
2. Equitable participation in decisions shaping the information society;
3. New and old ICTs in a multimodal approach;
4. Designing ICTs to serve people;
5. Empowerment for full participation; and
6. Research analysis and evaluation to guide action.

Assessing the outcome of the Geneva summit, Hafkin argues that efforts to include gender issues into the official WSIS documentation were fruitful: "the inclusion of gender issues in the Declaration of Principles and the Action Plan was the *sine qua non* for gender advocates to go forward at national and local levels. Without the imprimatur of the global Summit, they would have faced an uphill battle to secure a voice in the elaboration of ICT policy and the consideration of gender issues in projects. With the strong endorsement of the Summit, they are able to move forward confidently" (Hafkin, 2004, 59).

As part of Canada's WSIS Phase II activities, the Canadian Commission for UNESCO organized a conference in May 2005 entitled: Paving the Road to Tunis - WSIS II: Canada's Civil Society Views on the Geneva Plan of Action and the Prospects for Phase II. The conference brought together more than 200 people from all provinces and territories

and the private sector, civil society, academia and all levels of government, federal, provincial/territorial and municipal. Emanating from the Conference was the Civil Society Communique, which affirmed Canadian values of human rights, equality, cultural diversity, diversity, freedom of expression, privacy and gender equality (see <http://www.unesco.ca>). Specific statements on Gender Equality included the following:

1. Appropriate technologies that account for the roles of women and their interests using both old and new technologies and appropriate software and applications;
2. The use of ICTs as a catalyst for better governance to give women a stronger voice in democratic processes in society;
3. Providing women and girls with the skills to protect themselves from ICT-facilitated harassment and exploitation;
4. Support for increased representation of women and girls in scientific and technical education, and the use of ICTs to promote their increased participation in education at all levels; and
5. Promoting increased employment in the IT sector for women and the use of ICTs for their enterprises.

Many of the arguments made for gender mainstreaming into ICT projects and policies today are not that much different than those made in Women and Development (WAD) debates in the 1970s, which encouraged modernization theories to consider the role of women. Later iterations on WAD through Gender and Development (GAD) theories called for gender mainstreaming in policies and programmes, and the incorporation of a gender roles framework (Beneria, 2003). It is hoped that the current energy and commitment by women and women's groups working to incorporate gender analyses into ICT programmes and policies, at both national and international levels, will be successfully implemented by organizations and institutions developing network society agendas.

Most recently, Raboy (2004) who has participated and reflected on the development and growth of WSIS, argues that "information and communication are firmly on the global agenda [and that] this bodes well for the democratization of communication and its use as a vehicle for human development" (p. 231). Clearly, our review of government policies on public participation and evaluation of strategies to emancipate citizens in a digital technologies' context reveals that gender continues to be understood almost exclusively as white and female and is generally viewed as lack and/or inadequacy and merely a matter of catch up in infrastructure, access, and education. We are concerned that the latest generation of information communication technologies are moving forward in a way that will continue to keep marginalized people's in this perpetual state of catch up. We need to forefront not only the new technological developments such as 3G (third generation mobile phones), WiFi (wireless fidelity) and mesh networks, GIS (Geographical Information Systems), GPS (Global Positioning Systems), satellite,

broadband, and spectrum allocation on the gender agenda, but also the economic, social and political conditions and practices that continue to benefit a small group of people and interests.

While our detailed chronology of the individuals, groups, non-profits and government practices and interventions in attending to equity issues pertaining to gender and ICTs in Canada, they have largely been marginal, with little evaluation, and without much accountability. As we embark on a new generation of ICTs and another large scale world consultancy WSIS 2, we seem to yet again be reproducing the "haves" and "have nots." We suggest that the best of "civic society" requires that we broaden the definition of ICTs to include the latest wireless developments, make demands of its disciplinary settlement to address the ways in which these technologies shape our leisure and paid work, and actively engage in participatory forms of policymaking whose goals include adhering to human rights.

Appendix I: Suggestions for Ensuring Gender Equity to the Information Infrastructure from the Ad Hoc Committee for the Workshop on Access to the Information Highway, 1997.

- 1) The consultative process related to access and the information highway needs to be opened up. This involves consultation at all levels: local, provincial/territorial and national, engaging a wide spectrum of citizens and their organizations. Women and women's groups must be consulted. Various consultations should be conducted in a variety of formats: roundtable discussions, open-ended interviews, small focus groups, public forums, conference workshops, teleconferences and online discussions.
- 2) The multi-faceted nature of access, with its technological and social infrastructures, must be addressed in order to ensure the fullest representative of Canadian citizenry.
- 3) Future surveys on computer/modem access and ownership (in the home and in the workplace) should disaggregate data by gender, as well as age, disability income, and educational level.
- 4) Federal funding programmes for the information highway (such as Industry Canada's CAP programme) should expand their definition of community to include communities of interest, and not just geographic communities. (This is in contrast to the current funding guidelines where women's communities and centres have been denied funding because they have been deemed to be a 'special interest group' by CAP).
- 5) Federal funding programmes for the information highway should adhere to a gender-based analysis.
- 6) Literacy and training programmes are a necessary requisite in ensuring the fullest representative of Canadian citizenry to the Information Highway. Funding programmes, at both the provincial and federal levels, should allow for flexibility in allowing communities of interest to design their own training programmes. This could allow, for instance, for the diverse needs of the women's community to be met with gender-sensitive and specific training.
- 7) The promotion of community-based computer networks and a strategy to encourage more women and women's groups to take an active role in participating in content creation, training, mentoring, and management of community networks should be facilitated.
- 8) The development of online gender information services should be encouraged. Identification should be made as to what kinds of information and resources can and should be provided for women, with a plurality of viewpoints respecting the tenets of free speech represented. This can include information that resides in the federal, provincial, municipal and community level.

- 9) Identification of 'basic content services' for women and women's groups should be conducted.
- 10) The development of public access sites in public libraries, community centres, and women's centres should be facilitated.
- 11) Further discussions of the most appropriate technological and public policy means to provide ubiquitous residential access to the Internet at an affordable rate must also be advanced.
- 12) The development of online harassment guidelines, in coordination with commercial online services, ISPs, K-12 schools, universities, and the private sector, should be advanced.
- 13) The deskilling of work (particularly those in pink-collar ghettos traditionally occupied by women) by information technologies should be explored.
- 14) Issues surrounding telework, including childcare, employee benefits, and ergonomics, should be researched more thoroughly.
- 15) The obstacles (educational barriers, lack of affordable childcare) for women in entering and thriving in the high tech fields should also be a priority consideration.
- 16) The concept of lifelong learning as it applies to women (from young girls to seniors) should be explored.

Appendix II: Access Barriers for Women's Groups in Canada, from LR Shade *Report on the Use of the Internet in Canadian Women's Organizations, 1996*. Prepared for Status of Women Canada. URL: <http://www.swc-cfc.gc.ca/>

Barriers to Access-Technical: Repeatedly, women's organizations cited the need for funding for computer hardware and software (usually for upgrades); modems; Internet Service Provider (ISP) costs; and funds for the creation and maintenance of World Wide Web pages. Although many women's organizations found the money within their budgets to purchase the necessary equipment or services to get online, most cited the need for targeted financial support to continue their endeavors.

Barriers to Access-Organizational: A common barrier to widespread access to e-mail for women's organizations was to ensure that organizations with diffuse memberships (including Board members, volunteers, and users) located in geographically dispersed areas, can all have access to e-mail within their community (through domestic or workplace access, at community access points such as libraries, and community networks). Women's organizations therefore found that, until the widespread diffusion of e-mail, a variety of media needed to be utilized to communicate with their membership, including e-mail, faxes, and postal mail.

Barriers to Access-Training: Access to training was repeatedly cited by women's organizations as being a necessary requisite for successful Internet access. Both onsite training and training packages developed for Internet dissemination were cited as attractive options.

Barriers to Access-Francophone Groups: Francophone women's groups repeatedly cited the overwhelming Anglophone content of the Internet as a major barrier, and argued that more Francophone content needed to be developed before the majority of Francophone women's organizations would find the Internet a useful tool.

Barriers to Access-Aboriginal and Native Women's Groups: Aboriginal and Native women's associations were poorly represented on the Internet. Because of a lack of knowledge about the Internet, these groups had little to say about the Internet.

Barriers to Access-Disabled Women's Groups: Disabled groups were also not well represented on the Internet. The report recommended more research into the specific technical mechanisms and design elements to enhance usability.

Barriers to Access-Geographical: Access to the Internet was difficult for many rural and remote organizations. Although a specific federal funding programme, the Community Access programme (CAP) was constructed to address this issue, several women's organizations remained frustrated at CAP's designation of women's organizations as 'special interest groups' and therefore ineligible for funding. As well, CAP did not initially lend much support for training programmes, another gap that women's groups identified as a necessary requisite for getting more women online.

This paper reflects and incorporates portion of the following articles:

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