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**“Information and communication technologies (ICT) and
their impact on and use as an instrument
for the advancement and empowerment of women”**

**Report from the online conference conducted by the
Division for the Advancement of Women**

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* The views expressed in this paper are those of the author and contributors and do not necessarily represent those of the United Nations.

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1. INTRODUCTION

1.1 Background and context

When the United Nations Commission on the Status of Women (CSW) meets in March 2003 one of its focus areas will be information and communication technologies (ICT) and their impact on and use as an instrument for the advancement and empowerment of women. The outcome of the Commission's deliberations will also be a contribution to the World Summit on the Information Society to be held in Switzerland in December 2003 and in Tunisia in 2005. As part of the preparation for CSW 2003 the United Nations Division for the Advancement of Women (DAW) along with the International Telecommunications Union (ITU) and the United Nations ICT Task Force Secretariat has organized an Expert Group Meeting on "information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women" to be held in the Republic of Korea in November 2002. This report provides an analytical summary of the UN-DAW online conference on ICT and their impact on and use as a tool for the advancement of women which was held from 17 June to 19 July 2002 to serve as a transitional forum for the Expert Group Meeting.

The drive for engendering the ICT environment dates back to the Beijing Declaration and Platform for Action (PfA), adopted by the Fourth World Conference on Women in 1995. The PfA identified gender mainstreaming as a critical strategy for the advancement of women and the improvement of their quality of life. This process was expected to be applied to all arenas, including that of information and communication technology. The PfA drew attention to the emerging global communications network and its impact on public policies, and private attitudes and behaviour. It called for the empowerment of women through enhancing their skills, knowledge, access to and use of information technologies.

The twenty-third special session of the General Assembly, held in June 2000 to review progress made in implementation of the Platform for Action, recognized the increased opportunities created by information and communication technologies (ICT) for women to contribute to knowledge sharing, networking and electronic commerce activities. It also noted that poverty, lack of access and opportunities, illiteracy, including computer illiteracy, and language barriers prevented some women from using ICT, including the Internet. Steps were proposed to ensure that women benefited fully from ICT, including equal access to ICT-related education, training and entrepreneurship opportunities, and equal access as producers and consumers of ICT through public and private partnerships.

...Many women worldwide are yet to use effectively these new communications technologies for networking, advocacy, exchange of information, business, education, media consultation and e-commerce initiatives. For instance, millions of the world's poorest women and men still do not have access to and benefits from science and technology and are currently excluded from this new field and the opportunities it presents. (Outcome document of the 23rd Special Session of the General Assembly, para. 40, document A/S-23/13).

The role of ICT as a tool for development has attracted the sustained attention of the United Nations. In 2000, the Economic and Social Council adopted a Ministerial Communiqué on the role of information technology in the context of a knowledge-based economy. Later that year, the Millennium Declaration underscored the urgency of ensuring that the benefits of new technologies, especially ICT, be available to all. In 2001, the Council considered the role of ICT for development in the context of partnerships with relevant stakeholders, including the private sector.

To support the preparations for the Expert Group Meeting, the Division for the Advancement of Women conducted an online discussion on the theme from 17 June to 19 July 2002. The online discussion intended to demonstrate good practices and case studies of how ICT are indeed a tool for promoting gender equality. It aimed to showcase how ICT can enhance women's economic empowerment, increase their educational level, contribute to better health, and strengthen women's participation in decision-making and public debate. Emphasis was to be placed on the positive aspects, uses and applications of ICT that contributed to reducing gender-based inequalities and promoted women's empowerment. Examples were sought of innovative ICT solutions to overcome challenges women face in achieving equality. The role of women as key actors in designing national ICT policies, and in benefiting from ICT-supported economic growth, social development and participation in governance was to be explored.

The online discussion had one theme per week and ran for five weeks. The topics discussed were: ICT as a tool for women's economic empowerment (week 1); ICT as a tool for women's participation in public life (week 2); ICT as a tool for enhancing women's capabilities (week 3); Integrating gender perspectives into ICT policy-making (week 4); and a wrap-up week (week 5).

Invitations to participate in the online conference were sent in advance to members of the academic community, governmental institutions, non-governmental organizations, policy-makers, activists and others. Participation was open to anyone who registered with the appropriate site. Two hundred and seventeen participants from around the globe registered to participate and were provided with an opportunity to explore issues around ICT and women's empowerment. Further details on participants are provided in the Annex to this report. The conference organizers were successful in gathering a diverse group of women and men and eliciting their opinions, experiences and recommendations on how ICT have affected women's lives and how these technologies can be used for women's advancement and empowerment.

This online conference is an example of one of the many initiatives that aims to ensure that there is gender equality in the information and communications arena. It provided an opportunity to discuss how far progress has been made in reducing the barriers that women, and particularly the poorest women in developing countries, face in using ICT as a means of advancement.

1.2 Organization of the report

The goal of this report is to review the online conference and to provide a summary of the key points and good practice emerging from the discussions.

The full document contains:

- The background and context of this UN-DAW online conference;
- Key issues arising from the discussions with good practice examples of how ICT can be used to promote women's advancement and empowerment;
- Conclusions arising from the discussions;
- Details of participation in the online conference;
- Online references provided during the course of the discussion.

The complete transcript of the conference, including weekly summaries and final report, is available online at <http://www.un.org/womenwatch/daw/egm/ict2002/online.html>

2. ICT IMPACT AND USE IN WOMEN'S EMPOWERMENT AND ADVANCEMENT

Several themes emerged during the five weeks of online discussion. The diversity of views and range of experiences of contributors created an ideal scenario from which to paint a rich picture of the current ICT environment, the challenges facing women who are concerned with ensuring meaningful participation in this arena and designing innovative solutions. The discussion is primarily organized into four issue areas, based on how the online conference was structured. There are many important issues raised by conference participants that do not neatly fit into the categories assigned to the weekly subjects; these are covered in the cross-cutting themes section of the report.

2.1 ICT as a tool of women's economic empowerment

The discussion under the topic of using ICT as a tool for women's economic empowerment identified a number of ways and existing projects that are increasing women's economic opportunities. It also established two critical pre-requisites for bringing ITC-based economic benefit to as large a group of women as possible. These are (1) making improvements in access, and (2) promoting initiatives to include rural women and women in the informal sector.

2.1.1 Prerequisites for ensuring that women reap economic benefits

Both the provision of affordable, effective access and ensuring that infrastructure and applications were within the reach of and address the needs of marginalized communities were seen by contributors to be essential pre-requisites for ICT to be successfully used for women's economic empowerment. This section examines the issues raised and the solutions provided during the dialogue.

Affordable and effective access

Contributors were concerned that unless women had effective access to ICT they would not reap economic benefits. Achieving effective access was considered to require a multi-faceted approach involving adequate connectivity and the ability for women to play roles as active producers of ICT content, and the development of relevant infrastructure.

Connectivity

Contributors highlighted connectivity as a key issue, especially given the limited access to traditional sources of information.

(H)ow many (A)ffrican women in rural communities can access ICT services? In Nigeria, there are no libraries or information centres in rural areas. Some cities have just one library which everyone thinks is meant only for students. ... In a survey I carried out for the Federation of Media Women Association in lieu of their development through Radio program, about 80% of respondents (women) said they don't own radio sets and they don't listen to radio. Their source of information remain(s) their sons and husbands.

(Emem Okon, Nigeria)

Content

Participants stressed the need for women to be active producers of ICT content.

For example, a wide sector of the population has access to television, but only as recipients not as active subjects in the process o(f) conformation of the messages. So the need of improvement, in this case, is to have the possibility of taking part in the decision making process, because television could be a great means to model new roles and flexibilize traditional gender patterns, therefore providing women the opportunity to have access to better paid jobs that are traditionally occupied by men.

(Margarita Salas, Costa Rica)

Infrastructure for conducting e-commerce

The online conference discussants indicated that there is a particularly difficult challenge in using ICT for advanced applications such as e-commerce, since the appropriate infrastructure (and supporting policies) is not widely distributed or evenly developed.

Currently 85% of the world's e-commerce websites are US-based with Western Europe and Asia making up the rest. This means that global e-commerce policies may not be appropriate for developing countries... Few developing countries have frameworks in ICT. E-commerce activities may not be appropriate for local communities to promote inter regional trade within Africa. How many of our people possess Visa cards etc. to be able to buy on the Internet? Most organizations that run web-e-commerce trade internationally. We need to develop ways that promote regional trade. In some developing countries it is very difficult to open Foreign Currency Accounts. There arises a need to have a clearing house/broker to facilitate the process.

(Margaret Zunguze, Zimbabwe)

Inclusion of marginalized communities

Contributors were particularly concerned that ICT be used to economically empower marginalized communities – especially the informal and rural sectors. Participants believed that there are multiple obstacles to participation for these communities. These obstacles include limited access, inadequate training, gender unaware attitudes of policy makers, undeveloped infrastructures and language barriers.

...the area where women's economic activities are most concentrated in developing countries is in the informal economy- women working at home on handicrafts and sewing or rolling cigarettes, working in cities as street vendors, - working without any contracts or benefits. In some developing countries ninety percent of economically- active women are in the informal economy. How can ICT empower women in the informal economy? If ICT is to make a difference in alleviating poverty and improving the well-being of women and their families, it seems to me that this is the crucial area for concentration.

(Nancy Hafkin, USA)

The whole question of using ICT in the informal sector is a tough one -- there are issues of access, delivery of information, training, local language and content among others. In Pakistan, and other Islamic countries, the issues are exacerbated by the socio-cultural context. However, these are all issues that have been overcome in one way or another, and so represent challenges rather than absolute impediments.

(Linda Jones, Canada)

Talking to C.B.Os (Community Based Organisations) working in the rural areas in Nigeria, 2 main barriers lie between women and the IT

- 1. Language: illiteracy rate in such rural areas are high so such women would be unable to communicate in the current language found in the IT sector*
- 2. Energy supply and insufficient resources to install, run and access computers, telephones and the Internet also stand in their way.*

(Annie Davies, Nigeria)

2.1.2 Best practices for securing economic empowerment using ICT

During the online conference respondents discussed specific projects that used ICT to improve women's economic conditions, as well as recounting experiences of how women can overcome challenges to gain effective access to ICT and use these for economic empowerment. The examples provided suggest that ICT are being used by women to expand employment opportunities, to gain access to markets, to gain access to distance education in order to expand employment prospects and for sharing information that can also be used to promote economic empowerment.

Many respondents described specific NGO projects that provided ICT skills training with an economic empowerment component. These projects combined technical training in use of ICT with general skills training in business, some appreciation of the potential of ICT and some awareness-raising. What is also striking is that although the examples are taken from Africa, Asia, Latin America and Eastern Europe there was a similarity in the

focus on marginalized women, such as sex workers in the case of Nigeria, rural women in the case of Senegal and women in conflict areas in the case of Croatia.

The projects and experiences described below provided insight into how access to ICT can be used to expand economic opportunities.

Expansion of employment opportunities

The project beneficiaries in the examples in this section were able to expand their employment opportunities. Women who function within the formal sector enhanced their skills and employability and women in the informal sector used ICT to combine traditional (reproductive and community management) roles with income-generating activities.

I work in the Niger Delta region in Nigeria. Women's economic power has been greatly enhanced by the acquisition of ICT skills. This has enabled many women to gain employment into establishments such as the banks, corporate organizations, computer services, data entry and statistics, Internet services providers and many others. Womenlight organization, an NGO that works with female sex workers has turned out about 30 young women between January and now on computer skills and they are all gainfully and self employed.

(Emem Okon, Nigeria)

I have seen a lot of women advance from being just simple typist to consultants and IT skills trainers through the power of the modern PC. Many employers are realizing the potential of their employees (especially women whose education was affected from lack of funds or early pregnancies that forced them to settle for less) through the use of computers. (...) The ability to work from home through the use of PCs and the telephone has empowered most women whose first priority is to spend time with their children. Many women in Swaziland are typing scripts, reports, court proceedings, designing books, business cards and web pages from home and earning a decent income from this. Women can also attend short training through video conferencing with international renowned consultants as has recently happened in Swaziland.

(Elgiva Nyahoza-Sibisi, Swaziland)

In Costa Rica a high percentage of women are heads of the house, that is, they are the ones in charge of their children and of bringing economical sustain for the home. This means they have less time to work outside of their homes, ICT give them the possibility of accessing economic growth without having to sacrifice the time they need to take care of their homes.

(Margarita Salas, Costa Rica)

But, to the main question, how can ICT empower women in the informal sector? My impression so far is that, in pure business development terms, women in the informal sector benefit most from product, pricing and market information available through new technologies. Product information includes details on improving output (whether quantity and quality of agricultural produce or quality and design of garments). Pricing

*information helps women deal with middle*men* and improve their chances of getting a fair price for their products. Marketing information enables women to locate new markets and increase sales.*

(Linda Jones, Canada)

Widening access to markets

ZaMirNET Croatia (is) currently working in war affected, rural areas of the country. We started with purchase of the equipment, basic computing training that is added to the on site education for women (potential) entrepreneurs (provided by one women's organization). Idea is to provide support in terms of advertising and reaching even remote markets and teach about e-commerce. We engage international consultants and appreciate sharing of experiences and case presentations. Legal advice related to the small business can also be provided online. But it is to be developed within our project .

(Danijela Babic, Croatia)

(Multimedia Caravane used) a van equipped with laptops and digital radios connected to Internet, (and) ... went to the remote areas of Senegal to meet people of any age: children, youngsters, men, women, elderly people. ...(and) explain to them the concept of ICT, the purposes, how they work, what can be done with them: education, business, medical care, art, music, movies, ... Regarding the groups of women who attended those sessions in the rural areas, some of them wanted to learn more not just for the sake of learning and being literate but to be able to promote their local productions via ICT. For example, some women producing dyed materials, or growing onions and who didn't know how to sell more of their products were very enthusiastic about the possibility of capturing new customers in other regions without having to move.

(Fatimata Seye Sylla, Senegal)

Increasing access to skill enhancement programmes

Cyberspace ... can improve the delivery of service, provide a wealth of resources that will empower and enhance the livelihood of women, girls and the community

- Through training, decision making, health related issues*
- Raise the profile of rural women*
- Fight inequalities and prejudices*
- Sensitize both government and the public of their crucial ...unrecognized roles*
- Obtain recognition and support for the multiple roles of rural women, who are mothers, daughters, grandmothers, farmers, and small entrepreneurs.*

(Gia Gaspard Taylor, Trinidad and Tobago)

I am a member (of the) Professional Woman Association (of) Indonesia. As I experienced, we have many times organized tele-education on several topics using ICT (...) to ensure women('s) participation in any kind of activities aimed at improving the women productivities, either through home industries development, learning skills, health, even politics. So, we must call upon all professional women to embark on an campaign to educate women by women using ICT, and it works.

(Pratiwi Sudarmono, Indonesia)

Increased access to information sharing

*In some countries, women in the informal sector have become quite organized and a number of NGOs are active in developing support programs for women in the informal sector (for some interesting case studies, see *Demanding Dignity: Women Confronting Economic Reforms in Africa*, The North-South Institute, 2001). I recently did research on women in the urban and peri-urban areas in Angola, where the informal sector is the main source of income for women, and know of several organizations that are working with women in the informal sector.*

(Sonia Jorge, USA)

The general sentiment of participants was that although some progress has been made in using ICT for economic empowerment, there was room for significant improvement. The examples provided by participants confirmed a view that ICT can shift the location of women in the work-force and provide opportunities for employment and entrepreneurship. However these opportunities are not widely available and are restricted by problems of cost, availability and relevance.

2.2 ICT as a tool for women's participation in public life

Participants offered the view that if user-friendly ICT, particularly those based on older technologies, were made more widely available, these technologies could potentially play an important role in increasing women's participation in public life. However, participants also identified a number of different types of barriers that would have to be overcome, if ICT were to enhance participation in public life. The barriers discussed by contributors are presented in two groups: 1. internal barriers and 2. external barriers. This is followed by a review of the best practice examples provided by contributors.

2.2.1 Enabling environment for public life participation

Overcoming internal barriers

The barriers to using ICT in order to increase women's participation in public life relate both to the specific use of ICT and the context in which one is attempting to use them to make women's voices heard. One participant describes an important reason why women running for political office do not use ICT. Emem Okon from Nigeria states that "*the issue of using ICT tools is overridden by [women's] fear*" of using a technology they are not familiar with.

It is worth noting that the use of ICT for public life participation does not enter women's lives in a vacuum. Contributors noted that many women face a double burden of having internal blocks to using ICT, as well as negative attitudes about public life participation. The reasons that women may be reluctant to participate in public life was attributed to a existence of dominant social context that was non-supportive of female participation. This culture of public life was felt to have led to low levels of awareness and high degree of timidity among women and a general reluctance to enter public political life. Several posts referred to 'patriarchal social systems' that made it difficult both for women to

decide to participate in public life and for participating women to succeed. With this hostile environment as the backdrop, it is not surprising that women's participation in public life has not reached its full potential.

In Africa, not only common barriers like access, language and illiteracy are serious problems to overcome but the cultural attitude that prevents many women from standing up and expressing their views is even more tough to address.

(Fatimata Seye Sylla, Senegal)

From Costa Rica to Nigeria, from Senegal to Zimbabwe discussants repeatedly stated that the internal perspective of women made it challenging for them to envision themselves in the public sphere. This suggests that fundamental attitudinal changes would have to be made in order for women to participate freely in public life. Only then can ICT tools make a more effective contribution.

Overcoming external barriers

Participants also identified a number of external barriers to women participating in public life, through using ICT tools. The points raised here echo the comments and analysis concerning women's use of ICT for economic empowerment. The external barriers identified include:

- Difficulties with access – especially for disabled, rural and geographically isolated women. These difficulties include both physical barriers to access and software barriers;
- Poor networks in rural areas so that ICT tools that may be an option in campaigns in urban centres become ineffective in rural areas;
- The use of English as the primary language when using newer ICT making it difficult for non-English speakers to access information;
- Limited financial resources for smaller NGOs to buy or maintain ICT tools;
- Time constraints faced in converting written information into ICT based information;
- Lack of ICT training for women.

2.2.2 Best practices for increasing public life participation

Several posts described initiatives in which ICT were being used to increase participation in public life. The goals and time frames of these initiatives varied widely and included:

A project that uses ICT to allow both young girls and boys to think about citizenship

An Argentinian project titled “Piloting their future: training young girls and boys for citizenship, employability and leadership” aimed at using ICT to empower young people and to make them more gender aware. This project was developed by the Centro de Estudios de la Mujer.

(contributed by Gloria Bonder, Argentina)

Projects directly aiming to increase female representation in political office

Women's Political Platform located in Trinidad and Tobago whose objective was to train, support and encourage women to offer themselves for political office, using ICT to research and identify issues in what was referred to as "The Women's 10 Point Manifesto". A Campaign Training Manual was also prepared for the woman candidate to use from selection to end of election.

(contributed by Gia Gaspard Taylor, Trinidad and Tobago)

Projects focusing on increasing women's civic participation

(We held a) meeting of representatives from women's NGOs across Canada aiming to form an advisory group to the preparation of 2 pilot domestic online consultations. The Canadian federal government is preparing to use the Internet for increased civic participation, and the women's groups feel the need to be prepared to participate in the interests of women's equality.

(Jo Sutton, Canada)

Projects focusing on the use of ICT as an advocacy tool

The Gender and Constitutional Reform Network in Nigeria has used ICT tools to ensure that women participate in the ongoing constitutional review processes.

(contributed by Emem Okon, Nigeria)

Parenté Conjointe – a project implemented by ENDA using ICT to promote gender equality specifically regarding legal capacities in terms of parenting. The project was focused on raising public awareness to the need for updating the Family Code from a gender perspective. Actions included development of a website, the holding of a regional electronic forum and project exposure in the newspapers, on television and on the radio.

(contributed by Marie Helene Mottin-Sylla, Senegal)

Although access to ICT is incredibly uneven at present, they have been utilised by women in different regions to form activist networks and to present a collective voice in international institutional arenas of various kinds and for a wide range of purposes. Such networks have also enabled the important sharing of information about contrasting local ICT projects including those focused on training and advocacy.

(Lettie Longwe, South Africa)

In Costa Rica, the National Institute for Women (INAMU) has launched a large campaign to reduce domestic violence through a series of spots on TV and radio. This has brought a lot of attention to the problem. Also, the space has been used to give short and precise information regarding the legal instruments and places to call and access help.

(Margarita Salas, Costa Rica)

Projects for regional networking

Two examples of how ICT can facilitate information to be speedily transmitted across large geographical regions and to promote regional networking were provided.

The first example provided by Malgorzata Tarasiewicz is a project organized by the Polish based Network of East-West Women which produces a website and bi-weekly bulletin titled 'Access.' This project aims to promote gender and economic justice for women in Central and Eastern Europe and to foster better understanding and cooperation between the European Union and other countries of Europe.

The second example suggested that a Caribbean feminist research and advocacy group makes good use of ICT in linking national women's movements together.

The geography of the Caribbean makes its particularly well suited to the newer technologies. The islands stretch over a large geographical area and are separated by water thereby making movement of information in traditional ways challenging. But there are regional linkages - some political and many non-governmental - and therefore there is a need for communication. By using ICT, a regional women's organisation such as CAFRA (www.cafra.org) can reach their members and potential members in a way that would have been historically difficult.

(Gillian Goddard, Trinidad and Tobago/USA)

Several participants did not describe specific projects but described trends in which ICT use allows women to participate more fully in public life, through:

Increased mobility

The introduction of the GSM cell phones in Nigeria has enhanced women's participation in public life. Most women now contribute to phone-in programs on television on national issue and international issues. Women who are full time housewives can participate on public debates from home. They can also register their solidarity with women NGOs from home.

(Emem Okon, Nigeria)

Increased access to policy information

ICT give us better policy information than we have been able to access before. We can browse government and NGO web sites, compare approaches, and draw our own conclusions. But we do not see ourselves as solely recipients at the end of the information trickle down. The horizontal and transparent possibilities of ICT allow women and NGOs to produce and share ideas, plans and documents in a variety of ways. We believe we are only at the beginning of discovering the myriad ways of using ICT in our work.

(Jo Sutton, Canada)

The discussion under this topic suggests that if the internal and external barriers to use of ICT are overcome, these tools have the potential to enhance women's possibility to participate in public life. Many organizations in the women's movement have recognized this potential and have projects which provide support for ICT to be used as an advocacy

tool, and as a source of information access and information sharing. Perhaps the next steps in promoting ICT as a tool for facilitating public life participation would be to strengthen the links between projects that are specifically targeting increasing women's participation in public and civic life and those that seek to facilitate women's use of ICT tools.

2.3 ICT as a tool for enhancing women's capabilities

The discussion of this issue included multiple subtopics, including how ICT could be used to increase capacities in health, education and information dissemination. This section includes discussion of strategic interventions that are necessary for the full potential of ICT as a tool to enhance women's capabilities to be realized as well as several examples of best practice projects.

2.3.1 Realizing the potential for ICT and women's capabilities

Participants were emphatic that it is important to find relevant entry points for women to begin using ICT. There was consensus that use of "low-tech" or older ICT might be an appropriate entry point. It was also believed that there was a need for awareness raising and development of relevant content, if ICT tools were to become more relevant for women's capability development. These two issues were considered to be the cornerstones of successful strategy for ensuring that ICT contributed to women's capability development.

Encouraging ICT use and production of relevant content

Several posts put forward the idea that the starting point in encouraging ICT use was providing content and applications that were relevant to women and women's groups.

For most civil society organizations, and women's organizations in particular, technology isn't an end in itself, so gaining competency only becomes a meaningful goal when it becomes clear to such organizations in what way ICT can help them to better achieve their aims. ...It means that programs designed to introduce ICT in women's organizations are much more likely to be effective if they are designed on the basis of real needs, than if they are technical solutions in search of a problem to be applied to.

(Sally Burch, Ecuador)

The Nakaseke Multipurpose Community Telecenter, Uganda, consists of a business centre, library and computer centre. The business centre has a facsimile, colour printer, fax machine and a telephone. By providing content (in the NMCT) that (women) were familiar with and interested in, we were able to introduce them to other forms of ICT technologies.

(Sandra Aluoch, Kenya/USA)

In addition contributors stated that the role of women needs to be changed from being consumers to becoming producers of the information and there needs to be advocacy to ensure that these tools are not used in a gender biased fashion.

We need to teach and learn to "read" to "interpret" messages that circulate on and inside the different ICT and be empowered to re-appropriate this technology for women's needs and respecting their styles and increasing their creativity for being producer and not users.

(Gloria Bonder, Argentina)

From the perspective of participants in this online conference, the type of content and experiences in which women were interested included information and applications to reach the following objectives:

Improve the ability to communicate with a global community

Some of the attraction, just knowing we can be in touch with other women anywhere in the world, is awesome; this interest can be used to motivate and increase capabilities.

(Gia Gaspard Taylor, Trinidad and Tobago)

Provide economic benefits

At the Zimbabwe Women's Resource Centre and Network we provide training on basic computers skills, packages and use of e-mail/Internet. The few women who have come for training are either running their own businesses or they are looking forward to a promotion or change of jobs.

(Thembile Phute, Zimbabwe)

A contributor from Cameroon describes a situation in which female users came to ICT with economic goals that fit rigidly within the confines of socially defined gender roles but were nonetheless able to gain skills and economic benefit in a different way.

A case which was very instructive and funny, was that women first of all went to ICT, because for them that was an easy way to get married and have a husband who can take care of them. Most of the time those women are illiterate. By going there every day and asking somebody to try to send message(s) for them, they were very interested... Finally an illiterate woman decided to learn how to use the tool. And finally, every morning she went there and sent message(s) for other women who couldn't do it. And every message she sent, she earned 200 FCFA. By the end of the day, she had 5000 FCFA. By the end of the month (she had) more than 100 000 FCFA which is an equivalent of high salary in our country.

(Leontine Babenti, Cameroon)

Increase self-awareness and confidence

Specifically, I've had the opportunity to see the changes experienced by young women that start to become familiar with ICT: empowerment. Right now, technology is a big issue, and if women are not familiar with it they feel the public world is strange and menacing. Whereas if they have had the opportunity to use these technologies they feel a little more confident, even if what they have is simply a user level.

(Margarita Salas, Costa Rica)

Target women's interests

Participants, in general, seemed to believe that ICT do play a positive role in the enhancement of women's capabilities. However, they also expressed their views that ICT are not a tool of liberation in and of themselves and that the impetus and motivation behind their use are very important. They argued that ICT tools should specifically target women and women's interests.

One way that ICT can enhance women's capabilities is giving women more information about problems facing women and resources for women.

(Jana Everett, Canada)

ICT are a tool and as such they can either be used to transform and liberate or to continue reproducing traditional ways of lives that exclude women. Therefore, I believe that ICT will promote and enhance the capabilities of women if promoting and enhancing women's capabilities is part of the agenda. What I mean to emphasize is that political positioning will not automatically develop by using technology. (W)e must have our priorities and objectives clear so that we don't discriminate by omission.

(Gloria Bonder, Argentina)

Encouraging "low-tech" solutions and public access

Participants identified provision of "low-tech" solutions in combination with more sophisticated ICT as critical and also were supportive of public access provision, such as telecentres as a means of using ICT to enhance women's capacities. According to discussants, "older ICT" and simple technologies have several advantages over the more sophisticated ICT because they are more easily accessible, less expensive and easier to use. Participants were adamant that user-friendly technologies, applications that were designed for non-literate women and that were integrated with a wide variety of communication media were potentially more beneficial than electronically based ICT. Gia Gaspard Taylor, a participant from Trinidad and Tobago, underscored this point when she described having to use storytelling in ICT training.

Other participants supported the use of "low-tech solutions" as seen in the following:

The older technology like the faxes and cellphones can work very well for informal sector women to communicate and market their products. The new ICT like computers and Internet are removed from the women's environment and are not affordable for personal purchase for the informal women.

(Thembile Phute, Zimbabwe)

In particular participants perceived the television and the radio as important among the "low-tech" tools. Contributors referred to advantages including accessibility, ease of use and ability to be used in communities with high illiteracy rates. The following posts illustrate these points:

I agree with ... (the) concern that television and radio be left behind, mainly because they are still the most accessible ICT. Also, ... they don't require alphabetization to use and

produce them. That is, any woman can listen to a radio program or watch a television show even if she cannot read.

(Margarita Salas, Costa Rica)

Radio is very important for participation in public life. If you have telephone, you can call the producer or host of a radio or TV program and say what you approve or don't approve. If it's a call-in show, you can speak on the air from your telephone. I believe the new WorldSpace satellite radio that reaches whole continents should have call-in shows for people (especially women) to talk to each other all across Africa and Asia. When you call in, the listeners don't even have to know your name, and this can be necessary for women sometimes.

(Frieda Werden, USA)

The radio and television have enhanced women's capabilities in the areas of education and health. Some women have taken interest in listening to the radio doctor and by so doing and have gotten information useful for their basic health needs such as taking care of morning sickness during pregnancies.

(Emem Okon, Nigeria)

Older ICT were considered to play an important role as a bridging point of access to the newer ICT. Sandra Aluoch described a strategy for transitioning from low-tech to more sophisticated, electronic technologies to reduce fear among trainees at a telecentre project in Uganda. *"initiatives [were developed] that appeal to the groups of women who had otherwise been intimidated by the thought of visiting the centre."*

(Sandra Aluoch, Kenya/USA).

In the opinion of participants, the most frequently repeated solution for providing women with affordable access was to establish telecentres where women can have access to both the newer and the older technologies. These mechanisms if properly designed could fit the criteria of ICT solutions that served women's empowerment interests.

Telecentres are one option to provide community access to ICT and provide a wonderful opportunity to design gender aware programs. Telecentres not only provide access to ICT (telephones, radio, fax, copiers, computers, Internet, etc.) but (also) serve as a community centre where information specific to that community can be collected and developed for use by the community, including women and girls. In addition, when properly planned, telecenters can also provide services and information in many areas, such as health care, education, markets relevant to the community, etc.

(Sonia Jorge, USA)

2.3.2 Best practices for increasing women's capabilities

Discussants provided examples of several ongoing projects that aim to use ICT to enhance women's capability. These projects focused on developing capability in the following areas:

Information dissemination

India: Rights and Wrongs – an e-mail listserv that culls Indian newspapers for human rights abuses and resources and reports a section on gender justice.
(contributed by Jana Everett, Canada)

Education

There is ... a Zimbabwe Schoolnet project - part of World Link for Development which runs telecentres in the peri-urban areas. They report that 70% of their patrons are women. They tap on the teachers, students, Open University Students doing their research and teachers and ministry of education officers in the vicinity. The Ministry of Health personnel receive training in Epi- Info, a health statistical package.
(Thembele Phute, Zimbabwe)

Dissemination of health information

The radio doctor – provides information on basic health needs and first aid information – specifically useful to rural and illiterate women.
(contributed by Emem Okon, Nigeria)

Multi-focus, public access centres

Nakaseke Multipurpose Community Telecentre (NMCT), Uganda. The NMCT consists of a business centre, library and computer centre. The centre was used for initiatives in several areas including agriculture, indigenous health and ICT training.

- The agricultural project videotaped farmers on farming methods and best practices;
- The indigenous health project recorded interviews with midwives and traditional doctors. The audio and videotapes were screened and then stored later viewing;
- ICT training provided courses introducing ICT and teaching web design.

(contributed by Sandra Aluoch, Kenya/USA)

There was consensus that ICT can be an important tool for increasing women's capabilities if these technologies are available, affordable and relevant. Many examples were provided of projects that are producing and disseminating information content that supports capability development for women in health, education and human rights. The overriding concern was that this information should be available to women who need it most. The emphasis on making relevant content available to the majority of women is consistent with the discussion in previous weeks. The support for creative solutions for ensuring public access and support for older ICT received more attention.

2.4 Integrating gender perspectives into ICT policy-making

Participants were deeply concerned that a gender perspective should be integrated into ICT policy and many contributors perceived creation of an enabling policy environment as central in the drive for full participation and for ICT achieving their potential for women's empowerment. This section discusses key elements of the diagnosis provided by the online conference -- lack of gender awareness in ICT policy, and the absence of people-centred objectives -- as well as some of the creative solutions proposed for transforming the policy process in this sector. This section concludes by providing examples of projects that are working in this area of transformative change of the ICT sector.

2.4.1 Overcoming the absence of gender awareness

The views of online conference participants indicated that a wide conceptual gap exists between the views of policy makers and the views of gender advocates. Narrowing this gap was identified as a major challenge and several strategies were suggested in the discussions

The wide gender gap and in some cases the total absence of any gender consideration are major stumbling blocks in developing gender policies and plans that are gender-responsive at the national level. The first step in correcting this situation is to convince national IT policy making bodies to apply gender as a cross-cutting component in all its policies in much the same way that gender mainstreaming is being implemented by many governments.

(Chat Garcia Ramilo, Philippines)

On enquiry I came to the realization that all Local Government Chairmen live in the State Capital far away from the people. How will they know the issues to address? Policy makers do not understand the difference between necessities and luxury. We can foster a commitment to the engendering process in ICT policy makers by mobilizing women to embark on intensive advocacy. Policy makers, such as we have in Nigeria, will not willingly and readily engender the process without some people being on their neck.

(Emem Okon, Nigeria)

There are potential ICT "policymakers" at every level from the grassroots up. I am amazed at the extent to which we are repeating all the same old gender-related mistakes in introducing ICT to rural areas. We (the international community) seem to have learned little from earlier experience with the introduction of "appropriate" technologies or the development of gender-sensitive technology policy. The key issue is that the technologies should be adapted to suit women rather than that women should be asked to adapt to suit the technologies. It seems to me that most policymakers are proceeding on the second premise. If we can encourage them to think and act in terms of the first premise then we will ensure that ICT become more "women-friendly" in terms of cost, access, applicability in different fields, etc.

(Eva Rathgeber, Canada)

The respondents provided examples of projects that have been developed in an attempt to eliminate the conceptual gap and absence of gender equality awareness in ICT policy. The posts confirmed that projects on women's advancement and ICT policy have different areas of focus, some are geared to changing the views of the policy makers and governmental leaders, others aim to encourage dialogue between those who create policy and those who engage on the community level and yet others aim to improve the ability of activists to influence policy makers.

2.4.2 Integrating people-centredness

Participants believed that the current principles of the ICT sector need to be questioned and examined if these technologies are to serve women's advancement objectives.

For women's organizations and other gender-focused groups to be able to take on these issues from an advocacy standpoint, a widespread endeavour of awareness-raising is needed, to have a better understanding of the serious implications of present trends. In many cases women's needs and interests will not be served simply by inserting gender considerations into a model of development that is distorted from the outset. Through a deeper understanding of such issues, gender advocacy groups could play a leading role in proposing a more people-centred technological development, with a focus on women's interests and needs, but also those of different communities and social groups. This will need to include policies and mechanisms for redressing the balance between social and commercial goals. The "information society" is presented as an inexorable result of technological progress [in which] developing countries need to "adapt" to the new demands that this will imply. We are not invited to shape and define the society we want to live in the digital era. That, apparently, is the domain of big business... we are expected to adapt to the technology, not to see how to adapt technology to our needs.

(Sally Burch, Ecuador)

Participants appeared to be convinced that without deeper and more 'transformative' change in the ICT sector, women's advancement would not take place.

When information and training are conducted with a goal of transforming the perspective of the individuals and the institutions as opposed to simply informing them then the results have a much bigger impact than what is done in the limited projects. A transformed individual/organisation will produce the new engendered goals and projects themselves as opposed to having to be told what to do.....

What I mean by transformation is that the basic underlying belief system of the individual or organization has undergone a fundamental shift. You cannot empower rural or urban or professional women without transformation taking place. You cannot change a gender unaware person into a sincere gender ally without transformation taking place. ...As far as ICT go there is no doubt that both on the level of the woman user, and on the level of the policy maker, these deep changes must occur. [There is] frustration because of (1) the lack of belief in our female constituents that they can engage with ICT in the

different arenas and (2) the lack of any gender awareness and commitment in those who hold the reins of power.

(Gillian Goddard, Trinidad and Tobago/ USA)

2.4.3 Implementing a complex change process

The participants suggested that to realize the potential benefits for women's advancement, gender equality must be integrated into the ICT arena. Some of the more important and difficult changes that gender equality advocates face in the ICT arena include:

- Raising the awareness of women to the potential usefulness of ICT;
- Ensuring that ICT policy and practice is engendered and;
- Increasing the involvement of women in the ICT developmental process.

These changes are themselves made more complex by the fact that technology is racing forward at a rapid pace, gender roles are not static and the ICT themselves are resulting in some profound societal changes. Altering many factors simultaneously, as in this case, can be a complex undertaking. Not only does it require a thorough understanding of the issues and the populations involved, but it also involves having a good grasp of how change occurs. This section of the report will provide some of the posts in which participants describe their experiences coping with and assisting change.

A lively discussion on effective and innovative methods of change took place in the last two weeks of the conference. The focus of the discussion was how to realistically integrate a gender perspective in ICT policy and practice. In general, participants agreed that in the following areas steps were essential:

- Training and capacity building for all interest groups;
- Coalition and consensus building within and among relevant groups;
- Development of activist and community pressure on policy makers;
- Transformation of the ICT arena.

However there was some disagreement on where efforts should be focused, the points of departure are borne out in the citations provided.

Training and capacity-building

Some participants felt that the policy makers should be the target of training, while others believed that gender activists should be the target of both training and capacity building efforts.

(In order) to engender ICT policy ... under the current circumstances, training and transmission of information are some of the best alternatives available. However, I think that training is mainly useful when it is part of a goal of transformation. I have seen countless dollars spent on workshops that have to be conducted year after year because the participants in the workshop came out with information built on an old way of thinking that had not really changed. No amount of training or dissemination of

information can truly change the way that business is conducted when an individual or an organisation has not undergone a change in the underlying belief system.

(Gillian Goddard, Trinidad and Tobago/USA)

Very few policy makers are trained to think from a gender perspective and unless they are educated on how to do so at all steps of the process, we simple to not get gender integrated into policy. I believe that training of policy makers (both at the country level and international organization level) on how to engender the policy process is of the utmost importance.

(Sonia Jorge, USA)

Nor have the overall results of over a decade of "gender training" and "gender analysis" etc in the field of development brought the hoped-for benefits for girls and women. Change has not been shown to be a direct result of training of policymakers. How does change come about? Through activism, through pressure, through publicity, through struggle... by girls and women affected by the policy. Training of policymakers may play some role, but it is usually has a very limited impact in my experience.

(Pamela Collette, Kenya)

I agree ...that training needs to be directed at women and girls themselves. I believe for most women in Africa that training needs to be at a very much more basic level than the use of ICT. When a woman does not have running water or electricity she does not have the mental furniture to use ICT. Nor can she afford them or run them. It is far more important to provide her with the skills to generate sufficient income to attain these basic necessities. Parts of these skills consist in training her to recognise and use resources in what most people regard as unusable. (I have been doing that for two years - but it doesn't come into this particular discussion.) As women and girls learn skills that allow them to add value to the quality of their life styles so they develop the necessary confidence to stand up for themselves and to learn more complex skills.

(Sheena Freeman, Zimbabwe)

In Canada, a women's group, WomenSpace (womenspace.ca) (is conducting a) project (...) to provide women with tools to improve their capacities with consultation through ICT. Womenspace is actually focusing on this issue because (the) Canadian government is putting a lot of money in becoming a E-government in which they want to consult Canadian citizens on many subjects and issues. In numerous women's groups, we feel it is not good at all that the government is orienting (its) way of getting feedback from citizens mainly through electronic consultations. This is why women's groups in all Canada are getting together to know how it works and to improve their capacities to use these tools for their own issues and agenda.

(Colette Lelievre, Canada)

Coalition-building

There was agreement that there is a need to build coalition and consensus despite the sometimes strained relationships between policy makers and activists or policy makers and their communities and within these groups.

(M)any times "gender experts" or feminists have an "instrumentalizing" approach to policy makers. They/us conscious or unconsciously place ourselves as the truth keeper, that have the mission to "convert" them to our cause without listening and understanding their own perceptions, values and proposals on gender discrimination and how to change it. I believe we need to reflect much more on feminists attitudes and values towards the people we want to work with and be willing to establish a real dialogue and cooperative activities with them.

(Gloria Bonder, Argentina)

We can foster a commitment to the engendering process in ICT policy makers by mobilizing women to embark on intensive advocacy. Policy makers, such as we have in Nigeria, will not willingly and readily engender the process without some people being on their neck. I discussed with the Chairman of one of the Local Government Areas I visited, and he said women are never interested in "such things". Women in his office do not like challenging assignments. But they want facilities that will make them lazy. Can you imagine? So why waste resources and opportunities for people who will not make the best use of them. I say "women arise".

(Emem Okon, Nigeria)

Any kind of policy work is putting conflicting interests into play, and therefore implies a power relation (rapport de force). The central challenge, therefore, is to strengthen the position of those who are seeking to redress the imbalances (whether in gender relations, development models or whatever). From this perspective, it is obvious that, while training policy makers may be a useful tactic to help strengthen the arguments of those supporting change, or to break down resistance of those opposing it, as a strategy in itself, it will never be sufficient without building pressure from a broader constituency.

So training in advocacy for women's organizations may require a much longer process, but the longer term impact is likely to be more lasting. And let's not forget that the spaces for advocacy and influencing policy are not limited to negotiating at high level meetings, but can also include anything from raising public opinion on policy issues to direct action, when that becomes necessary.

(Sally Burch, Ecuador)

It is important not to be naïve about the important role that institutional and individual relationships play in the power structure. My experience has been that the most effective way to exercise influence begins with a non-adversarial relationship between one's NGO and the government. This type of relationship is difficult to build because NGOs, especially gender-focused NGOs, are often marginalized in ICT discussions. But it is in our best interest if we want to achieve our goals to ensure that we improve the relations between our NGO and the related Ministry...across the globe relationships are often the foundation on which future decisions rest. Relationships often decide where funding is distributed and what policy is prioritised. The skill of building relationships in the midst of difference may produce slow results, but it is one of the most effective ways to influence policy.

(Gillian Goddard, Trinidad and Tobago/USA)

In one of the projects with which I was involved I began to meet regularly with the civil servants responsible for the Gender Affairs division within a ministry. Once a relationship had been built then it became much easier for me, and for the other members of my organization, to have our voices heard. We were even able to draft initial policy that the governmental employees would use as the backbone of the policy that they eventually would propose.

(Gillian Goddard, Trinidad and Tobago/USA)

...[encourage] Consensus building among groups working on ICT policy and gender issues.

(Sally Burch, Ecuador)

Change tools and approaches

The discussants suggested that effective approaches often take a long time and require long term commitment.

I find that “on the job”, “pole pole” (little by little or slowly in Kiswahili) “training” that is looking for moments where there can be some significant learning and breakthrough works best for long term change. However, this organic approach is very slow, based on people’s lives and energies and never funded. The organic transformative approach does not fit within the usual project-oriented, short-term approach that virtually ALL international “aid for development” is based on.

(Pamela Collette, Kenya)

Others emphasized the need to be reflective about learning about the change while it is occurring.

Gender evaluation methodologies can be used to investigate whether ICT are being used in ways that change gender biases and roles and do not simply reproduce and replicate existing ones and can contribute in strengthening gender accountability in global, regional and national ICT initiatives. As more and more of today's development work and money is channeled into projects that employ ICT, measuring their impacts on and benefit for women are of great importance.

(Chat Garcia Ramilo, Philippines)

2.4.4 Good practices for integrating gender in ICT policy

Several examples of projects were provided by conference discussants, which addressed the many aspects of integrating gender equality concerns into ICT policy, taking into account the absence of a shared conceptual understanding, limited participation by women, the need for transformation of objectives of the sector and to introduce creative approaches to dynamic change management. The projects described in summary span many regions of the world and focus on a range of beneficiaries. The projects identified included:

Projects that aim to foster better understanding between policy makers and intended beneficiaries

UNESCO Chair on Women Science and Technology in Latin America, developing a research on conception, values and proposals of policy makers in top positions in Science and Technology (S&T) institutions in 6 countries of the Region. By this mean we intend to understand the personal and institutional culture of S&T institution in order to plan future dialogues and agreements.

(Gloria Bonder, Argentina)

Projects that analyze and assess the extent of engendering in ICT policy

APCWNSP (APC Women's Networking Support Programme) worked with UNESCAP in a research to map an ICT policy framework and legislation environment for our region, from a gender perspective and draw recommendations directed at narrowing the gender digital divide. The research paper focused on a comparative study of the countries' national IT and gender policy frameworks and the extent to which global and regional gender and ICT advocacy have effected local or national policy changes.

(Chat Garcia Ramilo, Philippines)

Projects that provide frameworks for engendering ICT policy focusing on both gender analysis and behavioural change

In 1999 several of us in the African Information Society – Gender Working Group (AIS-GWG) got together and prepared a manuscript on Engendering ICT Policy in which we included information on how to conduct change (in the ICT sector) at this deeper level. The information was groundbreaking on many levels and has proven highly useful to many others.

(Gillian Goddard, Trinidad and Tobago/US)

Projects that campaign for gender equality in ICT policy

Distributing a powerful medium, such as the Internet, to the present structures of power and privilege means that those structures are maintained and strengthened. Present policies are replicating and generating inequality.

(Jo Sutton, Canada)

The online conference discussants indicated that there is a particularly difficult challenge in getting community based activists to communicate with policy-makers or to engage in the policy arena.

ICT policy, perhaps even more than other policy areas, is often perceived as an issue reserved for specialists. It's therefore not often seen by women's organizations or other gender-focused groups, as something with important development and social implications that they should therefore take on in the framework of their advocacy initiatives.

(Sally Burch, Ecuador)

The discussion and debate around integrating gender perspectives into the ICT policy arena focused evenly on diagnosing the challenges faced in transforming a cultural and

political space where gender equality is not yet considered to be important and legitimate as well as on providing many examples of approaches and projects that can assist in making the necessary fundamental changes. The participants in the online conference were resolute in identifying the need for more than *reform* of the ICT sector in terms of objectives, culture and organization, and offered constructive solutions for a difficult set of tasks.

2.5 Cross-cutting issues

This section discusses some of the cross-cutting issues that participants raised in the online conference, that were not limited to the weekly topics. There were four main issues that appeared to be of central interest: 1. increasing participation in the ICT sector; 2. ensuring affordable access to ICT services and removing financial barriers to participation in advocacy; 3. providing training and education in ICT technology; and 4. ensuring language diversity.

2.5.1 Participation

The issue of women's participation, particularly of marginalized communities, held center stage throughout the entire conference. The contributors demonstrated that there are various levels at which meaningful participation takes place, there are barriers to effective participation and finally, that some good practices are required if women are to participate equitably in this arena. "Participation" meant many different things to conference discussants including particular concerns about:

- how marginalized women can gain access to ICT;
- how ICT could meaningfully serve women's lives by e.g., becoming beneficiaries in the development and economic opportunities provided by ICT;
- how women could interact and change the structures, institutions and policy that shape the ICT arena;
- how ICT can adjust to the needs of women rather than women having to adjust to the ICT sector.

The various meanings are illustrated in these quotations:

How can ICT empower women in the informal economy? If ICT is to make a difference in alleviating poverty and improving the well-being of women and their families, it seems to me that this is the crucial area for concentration.

(Nancy Hafkin, USA)

(H)ow many African women in rural communities can access ICT services? In Nigeria, there are no libraries or information centres in rural areas. Some cities have just one library which everyone thinks is meant only for students.

(Emem Okon, Nigeria)

Too often the making of ICT policy is treated as a technical issue, without consideration for its social aspects. But the essence of ICT is communication- people reaching people. If we are dealing with people, then the important aspect to consider are the constraints that people, disaggregated, face in getting access to and using communications technology.

(Nancy Hafkin, USA)

The most important issues becomes providing access. Particularly providing access in ways that consider the many constraints faced by women in their lives (e.g., time, location of access point, disposable income, family priorities, child care, among other).

(Sonia Jorge, USA)

2.5.2 Affordable access and increased access to financial resources

The online conference considered affordable access and adequate connectivity to be the essential pre-requisites for women to participate in the ICT sector as users.

ICT are by and large expensive solutions even when they are effective. Women's access to ICT will remain a challenge unless regulators and policy makers work in a focused way to bring down costs of infrastructure and technology. Women especially have more to gain since they are generally poorer than men in most environments.

(Mahesh Uppal, India)

There were many examples of how making improvements to access required a holistic and sophisticated approach. In particular, the ICT connectivity projects that were successful were those that provided access under conditions that were fine-tuned to respond to the needs of the target population. For example, in Canada the RoseNet and Violet projects in Ottawa began an ICT project by addressing issues other than connectivity. In the views of the planners, these issues were more critical to the success of the project than connectivity.

The Violet and Rosenet projects... are small projects working with NGOs in Canada who provide services to abused women in the use of Internet. The underlying theme is to create opportunities for women to experience using the Internet both as consumer and as part of a production team... In both cases, the women who participated in the projects were community leaders, paid and volunteer who are now getting interested in women and ICT. In some cases, they are getting into helping other NGOs and women in developing Internet capacity. ...We did not start the project with providing hardware and connectivity. Our plan is that if there is a need, we as a group will find a way to secure funding for connectivity.

(San San Sy, Canada)

However, the discussion also provided an example of a project which solved the issue of access through partnerships.

(The Multimedia Caravane was a project we) had here in Senegal from August 2001 to January 2002. Within the framework of the activities undertaken by OSIRIS (see

www.osiris.sn)...., we went through the remote areas of Senegal to meet people of any age : children, youngsters, men, women, elderly people. We had about 30 computers, electricity generators, with cd roms, dvds for educational and religious purposes. We also had free access to telephone lines and Internet everywhere thanks to Sonatel, our telecommunication operator.

(Fatimata Seye Sylla, Senegal)

There was consensus around the need to increase affordable access and improve connectivity through the establishment of telecentres and it was believed that such specific programmes would arise out of engendered policy.

...the establishment and deployment of telecentres that focus on women, both as consumers as well as owners or managers. Specifically, it is important to promote the deployment of telecentres in areas with low penetration rates or no access at all, particularly in rural and peri-urban areas where women make up a majority of those with no access to ICT.

(Sonia Jorge, USA)

Solving barriers to access was considered to be quite a complex challenge. The participants provided an example of a project with a laudable goal, but where improvements in access for women did not materialize because commitment to gender perspective were not vigilantly applied.

At the Zimbabwe Womens Resource Centre and Network we provide training on basic computers skills, packages and use of email/Internet. The Internet cafe was set up specifically to provide women with access to technology in a gender sensitive environment, with affordable rates. What we have noticed is that we are missing our target group. More men are using the Internet cafe than women and girls. More men are inquiring about the training courses than women.

(Thembile Phute, Zimbabwe)

In communities with limited finances and undeveloped infrastructure the issue of access can be managed by ensuring that older ICT remain part of the tool-kit.

(A) wide sector of the population has access to television, but only as recipients not as active subjects in the process or conformation of the messages. So the need of improvement, in this case, is to have the possibility of taking part of the decision making process, because television could be a great means to model new roles and flexibilize traditional gender patterns.

(Margarita Salas, Costa Rica)

Women in Trinidad and Tobago have many reasons to be discouraged from using newer ICT. Computer hardware and maintenance are expensive, access is difficult - especially for rural women - if one does not own a computer, connections to the Internet are slow, expensive and inefficient.

(Gillian Goddard, Trinidad and Tobago/USA)

Even in technology-rich societies it is easier to provide connectivity and access with older tools and discussants maintain that there is a positive role for these technologies in facilitating women's participation and advancement.

"ICT" does not only mean computers, e-mail, and the Internet. "Information Communication Technologies" include telephones, radio and TV. Telephone is a transforming invention for politics... Radio is very important for participation in public life... Here in the US, many people get access to be on television through their local cable TV systems.

(Frieda Werden, USA)

The most important needs for financial resources to which participants referred were for the need of connectivity and the need for funding for community based activists.

Organisations with more resources are likely to be online, while small NGOs simply do not have the money.

(Jo Sutton, Canada)

In her list of ten practical tips from an activist', Sara Platon of the Netherlands stated:

"Ten, most community based activists group do not have any travel funds, so try to cover their travel costs if you want them to join your activities."

And in the final conference week Sheena Freeman of Zimbabwe supports the view.

Funding is particularly necessary for activists from developing countries. Firstly they are often volunteers and secondly their national currencies seldom rate high in the international market place. This makes it almost impossible to fund themselves to conferences.

2.5.3 Skills training and education in ICT

Conference participants perceived the availability of adequate basic training as a pre-requisite for ICT being effectively used to empower women. Posts repeatedly referred to the paucity of ICT training available to women, especially the women of marginalized communities.

However, the main barriers remain lack of training, language and access to the tools. The problem of training has to be faced if we want to be able to express our needs and fears using ICT and if we want to be producing information and not only consuming it. Women of any age have to be involved in the training activities and emphasis should be put on young girls to become real actors in public life.

(Fatimata Seye Sylla, Senegal)

The fact that most women lack skills in the area of ICT brings in the need for training which should go simultaneously with provision of ICT technology

(Lettie Longwe, South Africa)

Contributors clearly identified as essential the need for women to attain basic ICT skills. The general absence of basic skills was seen as a major obstacle to women's ability to benefit from ICT. In addition some participants also mentioned the need for specific, more specialized ICT skills that could enhance organizational development or improve women's capabilities in targeted areas such as health, education or economic flexibility.

Information Communication technology (ICT), is indeed an effective tool for women(s') economic empowerment ...The limited access to resources, skills, technology and ICT, lower level of literacy, lower value to women's work, gender insensitive economic policies and unfriendly market structures have ... (contributed to) the feminization of poverty....(T)he Internet and website development ... (can) enable women to access and utilize information that is relevant to the development of their existing enterprises, in the process, women will be empowered leading to being economically better off.
(Patience Okokon, Nigeria)

The results of a recent study with social organizations in which I participated () show how organizations are coming to realize that an effective use of ICT to improve their information and communication capacities calls for a serious investment in developing policies and strategy, and in training people within the organization in areas such as information management and production and in developing organizational policies in communications. We observed that in many (mixed) organizations, women are the main operators of the Internet connection (often seen as an extension of secretarial work) but aren't necessarily being trained in the new information skills required. The organizations recognized that training in these areas needs to be much more widely developed, and should be integrated into any programs in ICT for NGOs and social organizations.*
(Sally Burch, Ecuador)

I think that one way to bring ICT for women in this sector is to partner with organizations that are already working to empower women (and who better understand the social, economic and cultural context of women's lives), and provide them ICT as another tool to work toward that goal. These organizations can themselves maximize their use of ICT and train women in the use of ICT to meet their multiple needs and demands (such as information on health issues, education, government programs, training on eCommerce strategies, business support programs, etc). By working with these organizations, we also have a better chance at producing local content (on health, education, social, economic, cultural issues, among others) and applications that will contribute to women's empowerment, while alleviating poverty and improving women's lives.
(Sonia Jorge, USA)

Participants gave examples of projects that were successful in providing ICT training and education for women. Several of these projects were seen by contributors to have had implications beyond simple transmission of ICT skills and to have been powerful contributors to the general empowerment of the participants.

For 2 years I led a Ministry-funded project that was geared to providing job skills training for young, impoverished urban women in Trinidad and Tobago. I was expected to help provide the basic life skills that many of these young women were lacking. I ...briefly introduced them to the PC and to the Internet.... It is now 5 years later and most of these young women are skilled at using ICT in their jobs. Some design web pages, one of the women is highly trained in computer architectural illustration, etc. Several of them have become the pivot points in the NGOs or professional organizations that are related to their work places. None of these women had used a PC prior to the start of the project.... Giving women opportunities to see themselves as important in the wider world can shift their perspective in ways that sometimes seem miraculous. I remember when these women were exposed to the World Wide Web and Internet chat rooms for the first time and how it woke all of them up.
(Gillian Goddard, Trinidad and Tobago/USA)

I have set up a training centre in a poor neighborhood of Dakar - Senegal ...to create a learning environment - with today's available technology - in which children will acquire knowledge to improve their environment, taking into account their cultural aspects and specific needs. The centre focuses on the promotion of women and girls activities. Today, with the involvement of the local community and the assistance of the centre coordinator who is a teacher, 15 girls and 2 boys are working with 6 obsolete computers to conduct data processing, spreadsheets, calculus, drawing, ... projects, in the mornings to learn "how to do things ". ...They don't have access to Internet in the centre but they already have the training and they go to private cybercentres to send emails to each other....This experience is preventing these girls from being street children. They are gaining self confidence and are eager to learn to be successful thanks to the ICT attraction. ...To me, this is an important step towards having more women involved in the making of the information society and be able to speak up their concerns.
(Fatimata Seye Sylla, Senegal)

To this end, we adapted a community development with an adult education approach in designing and implementing these two web-based projects. Our process starts with working with the identified communities – collectively assessing where they are at with their understanding and use of the technology, then move into involving them in the developmental process of the learning web sites. These two projects were conceived of as a means to give the groups a reason to learn to use the Internet.... In both cases, the women who participated in the projects were community leaders, paid and volunteer who are now getting interested in women and ICT. In some cases, they are getting into helping other NGOs and women in developing Internet capacity. We are also working with these women groups in exploring how to develop the capacities of other NGOs in order to participate in the Canadian online engagement process.
(San San Sy, Canada)

2.5.4 Language diversity

Discussants reiterated a strongly held view that language issues in the ICT arena limit women's participation. Many of the participants who were based in countries or regions in which English is not the official or primary language referred to this barrier.

Once online people need to be able find things which are of relevance to them and to then be able to participate. For example, the predominance of English online discourages those who have another first language.

(Jo Sutton, Canada)

Other methods of communication... will have to be in the language of the community as ICT have a tendency of using English which is not well understood by the target audience.

(Kudzaishe Sengurayi, Zimbabwe)

... as a francophone, I think the discussion and consultation would be much more deep and complete if other language than English was acceptable. When we talk about ICT policy, it is particularly important to note that focusing on one language excluded a lot of people who might have interesting things to say.

(Colette Lelièvre, Canada)

I believe that language options has to be taken as a political issue, an issue that has to be in the center of policy decisions, (e)specially for international organizations. This way discussions, political activism and research on gender and ICT can prove to be based in a diversity of women.

(Gloria Bonder, Argentina)

...language is always an issue, both academic and linguistically speaking.

(Sara Platon, Netherlands)

One participant gave her experiences and recommendations on the language barrier:

Several people have written about the exclusion of non-English speaking people from these discussions. I believe there are several possible aids to making their lives easier. First of all, I think it should be possible for them to write in one of the other languages that uses the Roman alphabet, preferably one of the more common European languages. It would do the rest of us no harm to have to stretch our minds a bit extra for a change. The most ponderous is to publish everything in several languages. Business and Professional Women International produce their information in English, French and Spanish. We have also encouraged correspondence on the BPW Sparklist in languages other than English as we have members in over a hundred countries.

(Sheena Freeman, Zimbabwe)

This section has reviewed the cross-cutting themes that link the discussion in the online conference. As noted, participants maintained that wide and meaningful participation was necessary if ICT were to be a tool for empowerment. There was consensus that by ensuring affordable access to ICT, particularly to poor and marginalised women, the role

of these technologies would be enhanced. Finally there was also a concern that unless increased attention was given to providing skills training and improving language diversity, the potential of ICT as a tool for women's empowerment would not be realized.

3. CONCLUSION

The information gathered in this online conference provided a good status report on what persons active in the area of gender equality and ICT perceive to be (1) the major obstacles to progress and (2) the projects that succeed despite the obstacles. The discussions in the online conference confirmed that there are opportunities for using ICT for women's advancement including through widening access to employment, increasing market access, and providing increased access to education, information sharing opportunities, and access to social development information. However the dialogue also emphasized that women face multiple challenges to achieving full participation in the ICT sector. These challenges included inadequate affordable access and connectivity, internal and external barriers to use of ICT including lack of awareness among women, and male-dominated public spheres, the lack of gender awareness among ICT policy makers and inadequate provision of public access facilities. The dominance of the English language in ICT was also identified as a barrier.

The conference participants also recognized that achieving full and equal participation in this sector will not only involve providing resources such as connectivity and training but will also involve eliminating more subtle behavioural barriers and obstacles. Women's full participation in the ICT arena will be achieved when the ICT environment is reorganized to ensure gender-aware input and to support women acquiring skills to provide this input. Implementing the transformative approaches to change suggested by online conference participants are a crucial part of ensuring that ICT can be used for the advancement and empowerment of women. The participants also recognized that access to ICT has not yet achieved importance as one of the main campaign and advocacy issues for the women's movement and organizations promoting gender equality.

This online conference is one small contribution to the ongoing global effort to increase women's meaningful participation, and attention to gender perspectives, in the ICT sector. The discussion demonstrated that there are many initiatives in every region of the world focused on this issue. As the conference drew to a close many participants highlighted the usefulness of such fora and the desire for ongoing interaction. This response underlines the importance of providing opportunities for people in the field to share ideas and experiences on the use of ICT for the promotion of gender equality.

ANNEX A – CONFERENCE STRUCTURE

The following questions were proposed to the conference participants as possible areas of discussion for each week.

Week One (17-21 June 2002): **ICT as a tool for women's economic empowerment**

Are ICT an effective tool for women's economic empowerment? Please provide examples of ICT enhancing women's economic opportunities.

How are ICT changing women's traditional economic opportunities and income-generation activities?

Week Two (24-28 June 2002): **ICT as a tool for women's participation in public life**

How do women use ICT as a tool for advocacy / networking, and to make their voices heard? Give examples of successful ICT use at local, national and international levels.

Describe how you have used ICT to increase women's participation in public life; to enhance campaigns for gender equality and the empowerment of women. What were the key elements for success or failure of ICT supported campaigns and activities?

How can ICT, and their use, change gender stereotypical roles and images in societies?

Week Three (1-5 July 2002): **ICT as a tool for enhancing women's capabilities**

Describe experiences in using ICT as a tool to enhance women's capabilities. Provide examples especially in the areas of women's education and training at all levels, and women's health, including access to health-related services and information.

How do women become ICT literate?

Provide examples of how women become producers of ICT-based knowledge and information.

Week Four (8-12 July 2002): **Integrating gender perspectives into ICT policy-making**

How are gender perspectives reflected in national ICT policies? Provide examples of strategies used to integrate gender perspectives in national ICT policy-making processes.

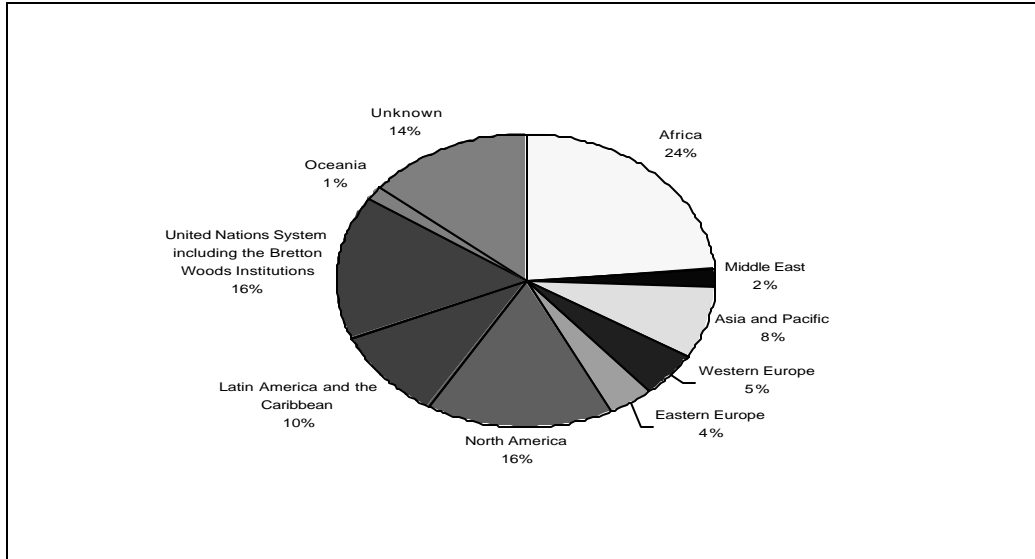
What were the key elements for success or failure of the strategies? What were the roles of different stakeholders: national machineries for the advancement of women; women's networks, NGOs or CBOs; international or regional organizations; others?

Week Five (15-19 July 2002): **Wrap-up Week**

ANNEX B -- STATISTICS ON THE ONLINE CONFERENCE

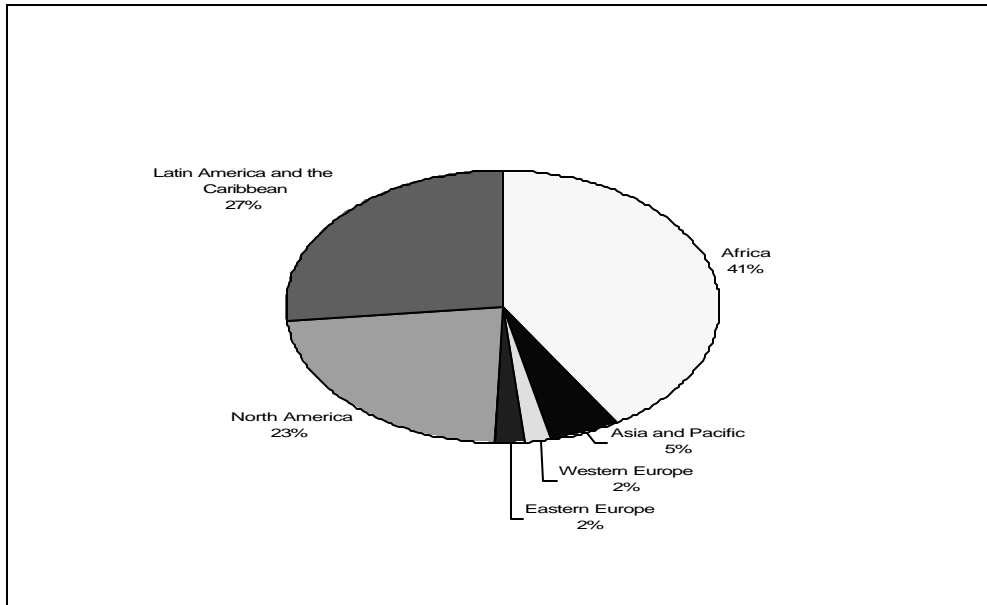
Exhibit 1 Geographic distribution of registered participants

The online conference attracted the highest percentage of registered participants from the African region (24%) and lowest for participation from Oceania (1%).



The level of active participation among registered participants, showed similar trend, with persons operating from Africa accounting for the highest percentage of active posters (41%), followed by posts received from Latin America and the Caribbean (27%) and North America (23%). The remaining 9% is accounted for by posts received from Asia, and Europe.

Exhibit 2 Geographic distribution of persons making contributions



Level of participation

Of the 217 registered participants, 39 contributed actively producing 97 contributions. The number of posts varied across the topic areas.

Exhibit 3 18% of registered participants posted messages

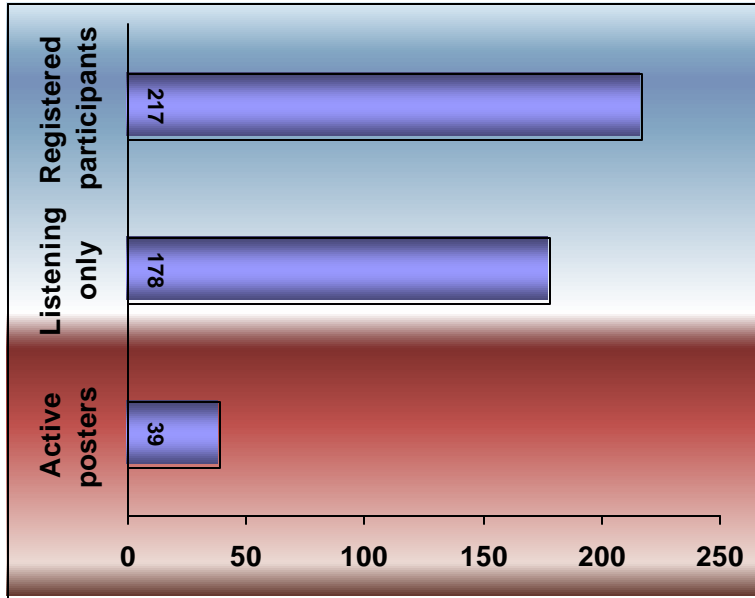
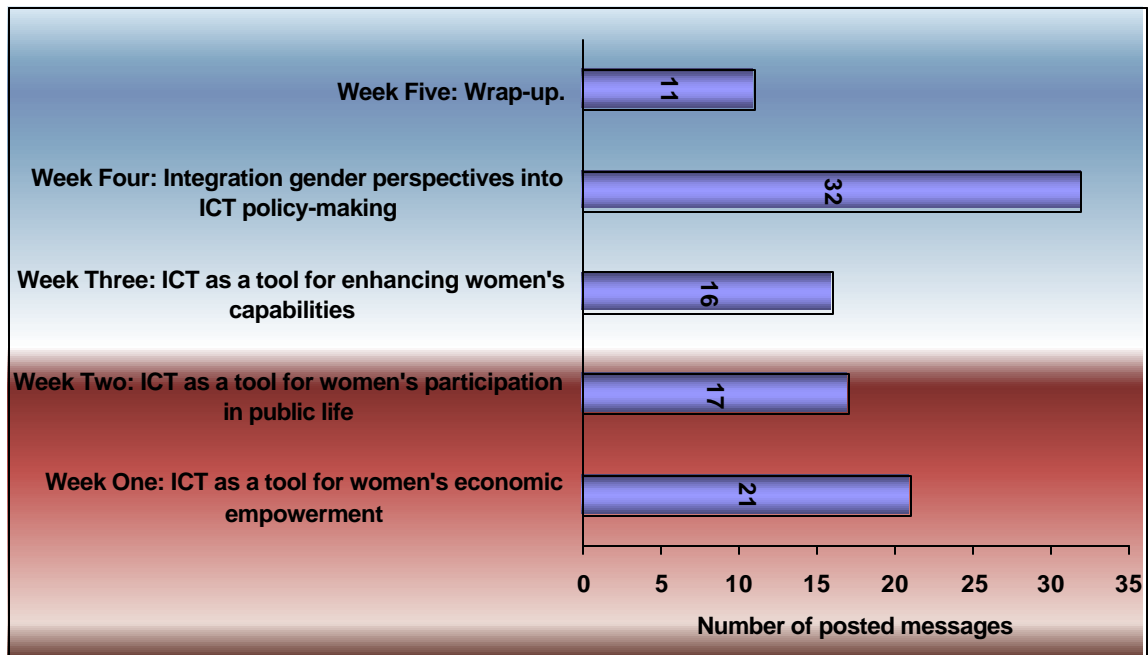


Exhibit 4 Gender and ICT policy topic accounted for over 30% of all contributions



ANNEX C— ONLINE RESOURCES PROVIDED BY PARTICIPANTS

Economic Empowerment Links

www.zamirnet.hr
www.zwrcn.org.zw
www.meda.org
www.devnetnigeria.org
www.osiris.sn

Public Life Links

www.cafra.org
<http://www.famafrique.org/parenteconjointe/accueil.html>
<http://www.neww.org.pl>
www.millionmommarch.org
ww.womenspace.ca
<http://policy.womenspace.ca/brainstorm/>

Enhancing women's capabilities

www.wings.org
<http://www.sabrang.com/irw/daily/july02/1july.html>
www.alainet.org

ICT Policy Links

http://www.whrnet.org/ICT/aisgwg_intro.html
www.cybersolidaires.org
www.genderchangers.org
<http://genderchangers.org>
<http://etc.genderchangers.org>
<http://squat.net/ascii>
<http://www.indymedia.org>
<http://www.uva.nl/>
<http://www.womenspace.ca>
<http://www.womenspace.ca/Campaign/Research/issues.html>
<http://www.womenspace.ca/Campaign/SpeakOut/index.html>
www.techknowlogia.org
<http://www.itu.int/ITU-D/gender/projects/>
www.apc.org or www.apcwomen.org
www.apcwomen.org/gem
<http://www.unescap.org/wid/04widresources/11widactivities/01lictegm/backgroundpaper.pdf>