Gender and ICT

Angela M. Kuga Thas
Chat Garcia Ramilo
Cheekay Cinco

Foreword by

NOELEEN HEYZER

Asia-Pacific Development Information Programme
e-Primers for the Information Economy, Society and Polity

Gender and ICT

Angela M. Kuga Thas

Chat Garcia Ramilo

Cheekay Cinco

Foreword by

Noeleen Heyzer

Asia-Pacific Development Information Programme
e-Primers for the Information Economy, Society and Polity

APDIP

ELSEVIER

The analysis and recommendations of this publication do not necessarily reflect the views of the United Nations Development Programme nor do they necessarily reflect the views of the institutions with which the authors are affiliated.

Academic Press, Butterworth-Heinemann, Digital Press, Elsevier, Focal Press, Morgan Kauffman, North Holland, Pergamon are the Science and Technology Imprints of Elsevier.

Printed and bound in India.

TABLE OF CONTENT

LIST OF BOXES

Box 1: New Information and Communication Technologies
Box 2: Why Women Living in Poverty Would Need Computers
Box 3: The Same Old Story?
Box 4: Women in Technology
Box 5: A Cost-Benefit Myth of Telecentres
Box 6: Grameen Bank's Women Phone Operators
Box 7: Malaysia's Demonstrator Application Grant Scheme
Box 8: Gender Analysis Frameworks
Box 9: Definition of Discrimination Against Women
Box 10: Women Encounter Technology
Box 11: Gender Transformative Strategies
Box 12: The Story of SITA-Mitra Mandal
Box 13: Measuring the Immeasurable
Box 14: Definition of Quantitative and Qualitative Indicators
Box 15: e-Governance - Philippines Case Study
Box 16: Gender-aware Guidelines for Policy-making and Regulatory Agencies Recommended by the ITU Task Force on Gender Issues

LIST OF FIGURES

Figure 1: Levels of Severity of Gender Problems
Figure 2: Underlying Causes of a Gender Issue
Figure 3: Learning for Social Change
Figure 4. Integrating a Gender Perspective in the Making of a Public Policy
Figure 5: Gender in the Wider Policy Process

LIST OF TABLES

Table 1: Internet Usage and Population of the World
Table 2. Gender Aspects of ICT Policy Issues
Table 3: Comparison Between Gender Neutral and Engendered Policy Process for Universal Access
Table 4: Key Issues to Consider for Gender-equal Outcomes in the ICT Arena

LIST OF ABBREVIATIONS

APC	Association for Progressive Communications
APCTT	Asia-Pacific Centre for Technology Transfer
APDIP	Asia-Pacific Development Information Programme
APWINC	Asian Pacific Women's Information Network Center
APWW	Asia-Pacific Women Watch
AWORC	Asian Women's Resource Exchange
C2C	Citizen-to-Citizen
C2G	Citizen-to-Government
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CSO	Civil Society Organization
DAGS	Demonstrator Application Grant Scheme
GDI	Gender Development Index
GEM	Gender Evaluation Methodology
GISP	Government Information System Plan
GPL	General Public Licensing
GTZ	Gesellschaft for Technische Zusammerabeit
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communications Technology
ICTs	Information and Communication Technologies
ILO	International Labour Organization
IT	Information Technology
ITU	International Telecommunication Union
NGO	Non-Governmental Organization
NRS	Nari Raksha Samiti
PLCPD	Philippine Legislators Committee on Population and Development
PM&E	Participatory Monitoring and Evaluation
SEWA	Self Employed Women's Association
SGSIP	Seed Grant and Small Innovative Project
SHG	Self-Help Group
SITA	Studies in Information Technology Applications
SME	Small- and Medium-Sized Enterprise
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIFEM	United Nations Development Fund for Women
VAW	Violence Against Women
VOIP	Voice Over Internet Protocol
WAO	Women's Aid Organization
WENT	Women's Electronic Networking Training
Wi-Fi	Wireless Fidelity
WNSP	Women's Networking Support Program
WSIS	World Summit on the Information Society

FOREWORD

Two decades ago, at the Third UN World Conference on Women in Nairobi, we realized the potential of the new Information and Communication Technologies (ICTs) to advance gender equality and women's empowerment. A decade later, we realized what it would take. A genuine Information Society demands the equitable participation of all members of society in the creation, management and use of its products. Without this, the notion remains an empty promise.

UNIFEM has worked for over a decade to help make the promise a reality for women. It is true that some women can use technology to access new markets, to access information and to compete on more equal terms with men. In countries or communities where strict cultural norms and traditions isolate women in their homes, for example the Internet has greatly facilitated their access to knowledge information. But technology is never neutral. It cannot by itself change the power structures that are deeply embedded in society. While the Internet has been a powerful tool for global advocacy for ending violence against women and other human rights abuses, for example, it has also served to facilitate the dramatic increase in sex tourism and trafficking in women and girls.

The constraints to women's access to and control over ICTs are by now well known. Despite advances that have reduced prices for computers and connectivity in many regions, they are still beyond the reach of most women worldwide. Telecommunications infrastructure is largely urban centred, Internet content is still primarily in English and online use of some languages has been constrained by technical design. Women have less time to use computers, email or the Internet regularly. Similarly, the unequal participation of women in decision-making, and their lack of needed skills and training factor into the gender gap in ICT policy and design.

So long as women are viewed solely as consumers of ICTs, they will never be able to fully participate in their benefits. Enabling women to realize these benefits means building their capacity not only to access technologies, but also to participate in their design, influence their content and shape their uses. Women are producers as well as consumers of information and knowledge. Women must also participate in shaping the regulatory environment that surrounds content and use. Without such an environment the digital divide will remain – between rich and poor, between those with the advanced education and skills and those without, and between women and men. But we also need to ask to what extent women are involved in, and gender issues addressed in the shaping of regulations – with regard to both content and use.

UNIFEM is supporting the development of websites, virtual communities and networks and CD-ROMS on such issues as gender and trade, ending violence against women, and women's human rights, as well as region-specific initiatives such as Arab Women Connect, which offers web-based information spaces in Arabic and English. We are currently partnering with Cisco Corporation in Jordan in the creation of e-villages, which is building the capacity of rural women to secure jobs in the new economy. Our Digital Diaspora initiative in Africa is harnessing the technical know-how and business expertise of entrepreneurs in the diaspora to women's organizations and business associations in Africa to strengthen women's economic security through training in ICTs, the creation of business partnerships and access to finance. In India we have set up a web-based centre for journalists on gender and HIV/AIDS, and in South Asia and Africa we are supporting networks of HIV positive women by linking them through an online resource centre.

Importantly also, women themselves are actively seeking help in building their ICT skills – in rural villages as well as big cities. Significant progress has been made, in Asia-Pacific and elsewhere, examples of which are highlighted in this publication. However, in looking at their impact on the ground, we must also realize that, for the most part, they remain at the level of pilot projects and ad hoc policies. We need to find ways to ensure they are scaled up and adopted in all countries and regions, and reach women everywhere at home and at work, even in remote areas.

It is within this context that I welcome this publication by UNDP Asia-Pacific Development Information Programme (UNDP-APDIP) and the Association for Progressive Communications Women's Networking Support Program (APC WNSP), placing the discussion of ICTs and gender within a gender equality framework. While acknowledging the benefits, both real and potential, of the much-heralded Information Society, they have moved forward to address the implications of integrating a gender perspective at a national level. What policies need to be put in place? What steps can be taken to expand the reach of good practice examples? It is time we move the discussion from the potential to the reality, and begin an in-depth policy dialogue on how to operationalize the recommendations that have been signed and agreed to by Member States.

At the most recent World Summit on the Information Society (WSIS) in 2005, UNDP-APDIP worked with UNIFEM South Asia and several other partners to organize a pre-WSIS Summit forum for Civil Society Organizations (CSOs), academics and leading activists from the country level to dialogue on some of the more pertinent issues we face in charting the way forward. We look forward to greater collaboration with UNDP-APDIP, UN partners, international donors and CSOs to eliminate the inequalities that still define today's Information Society.

An Information Society is not built by designs and intents but by concrete measurable actions. It is only when global commitments and national policies are translated into meaningful public policy development and implementation, that we can say for certain that we are making progress towards a true Information Society, and genuine e-quality for everyone, both women and men.

Noeleen Heyzer
Executive Director, UNIFEM

PREFACE

The status of women's access to participation in the Information Society is a microcosm of the larger society that we live in. It is a startling testament of the sheer mountain of the task that is before us and also how optimism at the highest levels of national policy makers has to be tempered with the harsh realities of the socio-economic and political landscape that is evident in the developing world. It is within this crippling environment that the role of ICTs and their potential for the empowerment of women should be examined to be able to provide concrete and tangible results for the participation of women from all levels of society into the Information Society.

There are notable examples of successes within the region in attempting to push this agenda forward, but it should also be cautioned that we need to place these pilot projects and ad hoc policies in the appropriate context. We need to ensure these successes do not detract attention from the actual status of participation of women in the Information Society. In the final analysis, equal participation of women in the Information Society involves attention on issues such as the ability to access, process, create and manage information.

UNDP has always advocated that ICTs have enormous potential, especially in the field of education, health and commerce. Even more so, it has a critical role in providing an opportunity to democratize decision-making and enhance the governance processes of women's rights. However, to ensure we are able to reap the full potential of the opportunities within this new Information Age, the global community and national policy makers have no other choice but to be proactive about ensuring that the benefits of ICT are equally available to and shaped by women and men.

It is within this vein, that UNDP-APDIP and APC WNSP collaborated on this publication to examine and discuss the context of ICTs and gender by placing it within the Gender Equality Framework.

We hope this publication will move the dialogue forward to address the questions of implications of integrating a gender perspective by realistically examining the state of play across the region.

Shahid Akhtar
Programme Coordinator, UNDP-APDIP

INTRODUCTION

The digital divide is not an accessibility issue but an equity issue… Under informational or digital capitalism increasing returns are not an anomaly. But they create an instability. They have been marked by the most unequal distributions of income and wealth in human history. …development theories of the industrial age are inadequate to explain the ground realities of the information age.

- Govindan Parayil, National University of Singapore[1]

What are the Benefits of ICT for Development and What is the Digital Divide?

Information and Communications Technology (ICT) has no doubt been recognized as a potent force that can transform the development pace and status of a country. In fact, this is not the first time that technology is seen to provide the much needed impetus for progress and development. Industrialization and the establishment of manufacturing and electronic assembly plants, primarily in Asia, and to a large extent in Latin America, have demonstrated how technology alone could influence and drive economies and their respective developmental policies.

Within the same vein, the developments taking place in the field of ICT have positively enabled and strengthened the creation, processing, storing and sharing of information as a continuous communication cycle. It provides instantaneous relaying of information to and from any location on the face of the planet at a relatively lower cost than ever before.[2]

The potential benefits for women with the resources to access and use new ICTs are enormous. For society as a whole, ICTs offer immense possibilities for reducing poverty by providing income generating opportunities, overcoming women's isolation, giving women a voice, improving governance and advancing gender equality. In addition, ICTs have provided various options to increase the reach and speed of communication (see Box 1).

At a macro level, this seems to imply that geographical, social, economic and political borders and boundaries are made irrelevant in this new information age. However, there is a growing global concern

---

Box 1: New Information and Communication Technologies

Information Technology (IT) uses computers, which have become indispensable in modern societies, to process data and save time and effort. IT employs the use of computer hardware and peripherals, as well as software, and requires computer literacy on the part of its users.

Telecommunication Technologies include telephones (with fax) and the broadcasting of radio and television, often through satellites.

Networking Technologies of which the best known is the Internet, but which has extended to mobile phone technology, Voice Over Internet Protocol (VoIP) telephony, satellite communications, and other forms of communication that are still in their infancy. Networking technologies include the Internet, mobile telephones and cables, Digital Subscriber Line, satellite and other broadband connectivity.

Source: Adapted from Association for Progressive Communications. 2003. ICT Policy: A Beginner's Handbook. Johannesburg: APC. p.9

---

[1] Key points from a paper exploring if ICTs could be India's growth engine, which was presented at the Indo-US workshop organized by the department of management studies of the Indian Institute of Science, Bangalore. See
http://www.rediff.com/money/2003/mar/12guest.htm
[2] See Drake, W., 'The Rise and Decline of the International Telecommunications Regime'.
http://www.ceip.org/files/projects/irwp/pdf/draketelecom.pdf

on what is deemed as the 'digital divide' – of those who have the capacity and access to information and the 'information have-nots'.

In addition, it must be noted that the impact of the digital divide on information 'have-nots' needs to be contextualized within the reality that women make up the majority of the poor and are part of the deeper end of this divide.[3] The constraints on women's access, usage and capacity vis-à-vis ICT are similar in many respects regardless of geography. Poverty, illiteracy, lack of education and skills, language limitations and capacity, time constraints, cultural restrictions on mobility in public, and psychological barriers (which are perhaps due to the perception that technology is a male domain) often result in women's ambivalence and fear towards ICTs.

Why does Gender Equality Remain a Missing Agenda in Development?

Today's development framework leaves very little room to address issues of equity (which, to a large extent, demands affirmative action towards women's empowerment) and gender equality. If a gender perspective and analysis is at all integrated, the main impulse motivating the articulation of concerns with gender are usually limited to promoting growth, reducing poverty and improving productivity (Rose, 1995). The additional concerns of Asian countries on the sustainability of the digital economy have further exacerbated this emphasis.[4]

As trends in negotiations around the World Summit on the Information Society (WSIS) have shown, actions which were proposed prioritize issues of infrastructure, connectivity and access (WSIS Plan of Action 2003[5]). Gender equality advocacy groups had to continuously monitor negotiations and persistently advocate for gender to be recognized as a cross-cutting issue and principle in the final declaration, only to see it whittle down and tied specifically to a paragraph on women as a target group, and after young people (WSIS Declaration of Principles 2003[6]).

Such narrow definitions discourage a deeper analysis and engagement into the complexities faced by women and girls in exercising their agency in decision-making that affects all spheres of their lives. Hence, engagement with equity in this respect usually extends only as far as addressing 'access', rather than empowerment issues of control, ownership, decision-making and self-determination. A policy study on gender and ICT in the Philippines by WomensHub and the Philippine Legislators Committee on Population and Development (PLCPD) points out that a correlation between the level of human development and the prevalence of ICT access and use exists and that "countries with high human development indices prove to have high ICT availability. Women's development, as a highlighted concern of human and sustainable development, must therefore be considered in the planning, implementation, and monitoring of ICT development and utilization in the country."[7]

Why is There a Need to Incorporate Gender in ICT for Development?

In order to maximize the potentials of ICT in effecting gender equality and women's empowerment, there is a need to not only have a clearer understanding of the concept of gender, but to also consciously integrate a gender perspective in ICT and improve our ability in identifying and analysing gender and ICT issues.

At the outset, while it is acknowledged that most development paradigms do incorporate gender as a factor, it must be noted that these are primarily and largely as an add-on or as an afterthought. It must also be noted that several developmental agencies have now taken a broad-based approach, whereby they have placed gender as a cross-cutting thematic area of developmental work.

---

[3] e-Choupal, for example, is a much celebrated initiative. Their agriculture extension efforts in India which seek to improve the productivity of agriculturists are based on the telecentre model. e-Choupal has been critiqued for not involving low-caste farmers. Women are also not seen as intended beneficiaries of the initiative (Gurumurthy, 2004: p.29).

[4] According to Mitter (2001), sustainability of the digital economy depends, finally, on a country's ability to cater to its domestic needs and local traditions; in its absence, export-oriented strategies will only create an enclave or a satellite economy, often referred to as the 'bubble economy', that is dependent upon decisions of foreign investors. There is thus, in Asia, justified concern lest that these bubbles burst and ICT-related jobs disappear.

[5] The WSIS Plan of Action can be referred to online at http://www.itu.int/wsis/documents/doc_multi.asp?lang=en&id=1160|0

[6] The WSIS Declaration of Principles can be referred to online at http://www.itu.int/wsis/documents/doc_multi.asp?lang=en&id=1161|0

[7] 'Gender and ICT in the Philippines: A Proposed Framework', jointly-developed by WomensHub and the Philippine Legislators Committee on Population and Development.

Gender advocates have long insisted that gender is an integral component in development for the simple reason that persistent and emerging gender issues and inequalities hinder full and equitable development. A gender-blind framework and approach to development does not take into account socially constructed inequalities between women and men, as well as between different kinds of women and different kinds of men, within a community.

Furthermore, the location of gender in development paradigms and initiatives have been mostly in areas that are viewed traditionally as 'women's issues', such as health, and violence within the community and the family. While these issues of concern are important, it is equally important to extend and expand the development framework to include areas and fields that have not included women and gender in the past. In the Philippines, for instance, the review of the government's ICT policies that was conducted by WomensHub and PLCPD has shown that: "Significantly missing in the many incarnations of the ICT policy initiatives and formulations as well as ICT legislations in the last 10 years is a clear-cut and equivocal commitment to advance the gender equality and women's empowerment through ICT. The Philippines' strategic framework for ICT development is silent on gender issues and considerations."[8]

ICTs have long been believed to be gender neutral but, contradictorily, the ICT sector is primarily a male domain. This, in and of itself, is an issue as it dismisses the invisibility of women in the ICT field as a given. ICT for development frameworks and initiatives that do not incorporate gender as a key factor and concern run the risk of widening inequalities between women and men. For example, in attempts to provide universal access to ICTs among rural communities, several development agencies fail to consider women's particular needs and realities in planning and implementation. Thus, these initiatives tend to be largely tailored towards the needs of men within these communities, a situation that further marginalizes women. Policy makers and even development experts may sceptically ask too, *why women living in poverty would need computers*? (See Box 2).

Box 2: Why Women Living in Poverty Would Need Computers

Why would women living in poverty need computers if they still do not have access to clean water and other basic goods? This is an interesting debate which is touched upon in the International Development Research Centre book *Gender and the Information Revolution in Africa* by Rathgeber and Adera, but which needs much more exploration. Limited evidence so far suggests that the poor are willing to spend a significant proportion of their income on ICTs if by using them they can see real economic benefits. For example, a World Bank report showed that, in Chile, the poorest sections of society spend as much on telecommunications as on water and electricity combined (Kenny, *et. al.*, *2000*). Another research issue relates to whether the emergent information society can be seen as a knowledge society.

Source: Information and Communications Technologies: A Priority for Women in Developing Countries. Paper presented at the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge, MA, 30 April - 1 May 2001.

ICT is an important tool to address women's basic needs but, more importantly, it also serves as a means for women to lead themselves out of poverty. "Women in poverty may lack education and may be illiterate, but this should not be equated with their lack of wisdom, survival skills or resilience," stressed Usha Reddi, Director of the Commonwealth Educational Media Centre for Asia. Women must be enabled to use ICT effectively within a social, economic and cultural fabric that has consistently disallowed this. Digbijoy Bhowmik of i4d said, "it must be kept in mind that the need for information and communication precedes the need or substantiation of technology."[9] In other words, the need for information, knowledge and communication and the means by which these are provided cannot be considered at the same level of priority, as these needs existed long before ICT. ICT must remain as the means to this end.

---

[8] The four-month review covered (1) National ICT Plans and Strategies from the Ramos Administration to the Macapagal-Arroyo Administration; (2) Major ICT-related Legislations; (3) Conferences and Major ICT-related Covenants and Declaration of Commitments; (4) Publicly-funded ICT Projects and Initiatives which Promotes Citizen's Access and Use of ICT; and (5) Pending ICT-related House and Senate Bills. The review's objective was to find out whether gender equality and women's empowerment are considerations in the government's ICT strategies, policies and actions over the last 10 years.

[9] Please visit http://www.dgroups.org/groups/GenderICT/docs/GenderIctReport.doc for full summary report of the i4d-hosted online discussions on 'Gender and ICT: Issues, Implications & Opportunities'.

Application of ICTs by women's rights activists in small-scale projects has shown that such technologies enable a woman to seek safe spaces in the form of information, knowledge and community. ICTs provide women the ability to make informed choices in relation to political, economical or social issues that affect their lives. If a gender perspective and analysis is not integrated from the beginning into national ICT policies while nations are either still trying to develop these or have yet to start, women and girls risk experiencing disempowering gender relations of a greater intensity and being impoverished even further.

TAKING A CLOSER LOOK AT WOMEN'S REALITIES

…in no region do women enjoy equal legal, social, and economic rights. Women have fewer resources than men, and more limited economic opportunities and political participation. Women and girls bear the most direct cost of these inequalities—but the harm ultimately extends to everyone… Gender inequalities persist because they are supported by social norms and legal institutions, by the choices and behaviours of households, and by regulations and incentives that affect the way economies function. A strategy to reduce gender inequalities must address these factors. Foremost among the costs of gender inequality is its toll on the quality of human lives. Evidence suggests that societies with large and persistent gender inequalities pay the price of more poverty, illness, malnutrition, and other deprivations, even death. This makes a compelling case for public and private action to eliminate inequality. Public action is particularly important, since many social, legal, and economic institutions that perpetuate gender inequalities are extremely difficult for individuals to change.

- The World Bank, 2001[10]

Gender Neutrality of Technology – Pure Science Fiction

The application of the technology and who uses it make ICT extremely gendered. However, in reality, gender issues are not holistically addressed in the application of ICT. The way ICT is applied today has largely been an extension of our socialization – an extension of the provision of basic services and an extension of our efforts to promote efficiency, productivity and cost-effectiveness. Generally, the way ICT is applied today has little to do with the appreciation of the individual and the richness in diversity s/he brings to a society and the multiple identities and roles that the individual plays within that society. The way ICT is applied today makes little difference in addressing gender (Kuga Thas, 2003).

Traditionally, women have had a subordinate position to men, where, for example, she may contribute materially to the household but her husband makes the decisions on how the income is spent. On a macro-political level, most governing bodies are dominated by men; legislative and judicial decisions often lack a gendered perspective and do not represent women's interests. ICT access and use may be similarly restricted: at the micro-level, the son's preferences may translate into allowing boys greater access than their sisters to the family computer; at the macro-level, supposedly 'gender-neutral' ICT policies regarding education, training and price structure may have an unintended negative impact based on gender roles and access to ICT resources.

In the context of ICT, it is necessary to consider how ICT impact women's multiple roles and examine changes brought about by the new information and communication society on women's and men's gendered roles. Gender role analysis is useful to understanding to what ends women and men utilize ICT (i.e. reproductive tasks associated with educating children, productive tasks associated with work, and community tasks associated with volunteerism), whether use of ICT is time-saving, and whether women's and men's use of time is different (i.e. does one sex have greater leisure or does increased time flexibility create the potential for more 'double shift' as telecommuting blurs distinctions between private (home) and public (work) domains).

In terms of ICT use and impacts, examining gender roles may lead to greater understanding of the differences between women and men in ICT use and impacts. For example:

▸ In a given community, do women and men, girls and boys, participate equally in the use of Internet facilities at a library or telecentre? At the telecentres, are men visiting pornographic sites and making the environment uneasy for women to remain within?

---

[10] From the World Bank's *World Development Indicators 2001*, pp. 35-36. http://www.worldbank.org/data/wdi2001/pdfs/people.pdf

▸ In a development organization, is there a gender difference among those who use/appropriate email and those who do not? Is a general public email account assigned to lower category staff who are usually women compared to private email accounts of top management who are usually men?

▸ Does the availability of a home computer facilitate work management through telecommuting, or does it create unrealistic time demands because the worker – female or male – is always connected? Are both women and men who telecommute paid equal wages for equal work or do wage differentials still exist?

▸ Are women, when telecommuting, often disrupted just because they are working at home, while men are generally left to do their work without disruption just as they would be at an office? Do female workers' time demands increase or decrease?

▸ Are national policies being designed in such a manner to encourage telecommuting only for women, with the presumption that all women would prefer to work from home as they would want to take care of the children and household? Do such policies work against encouraging men to share household responsibilities? Do such national policies prioritize incentives to the private sector as they will not have to pay for various insurance and health benefits?[11] Will such policies effectively remove women's opportunities to go outside of the home? Will such policies unknowingly exacerbate existing situations of domestic violence?

The questions above as one can see are not just limited to the issue of an equal number of women and men using ICTs. They must include issues that 'interfere' with not only family matters, but cultural matters as well. Projects that say they address gender inequalities therefore, need to look beyond the surface of the immediate problem (see Figure 1). Projects cannot run away from 'interfering with family and cultural matters' because when gender inequalities are addressed, the whole issue of socialization of values, of what is feminine and masculine, and the power dynamics between the two socialized concepts need to be examined and analysed.

The fact remains that opportunity costs of forgoing girls' labour are often high, particularly relative to boys', given the gender division of labour within the household. Girls are more likely to be 'employed' in the household, whereas boys are often not considered old enough to contribute to productive labour (Bhatty, 1998). Thus, the opportunity costs of empowering women and girls at all stages are high for a household to bear. It is only when this 'empowerment' is accompanied with an income value to the household that a valuation of their contributions changes to one of reasonable acknowledgement. Gender is therefore a consistent variable in decision-making at the household, and reinforced in a vicious circle by the larger society not only through tradition, beliefs and practices, but through various institutional structures and mechanisms which include those of the State. These usually result in women and girls facing gender-specific disadvantages arising from the specific construction of femininity.

Women are also constantly reminded about what they should or should not be interested in, and where their capabilities and strengths lie. For example, the *Newsweek* magazine, regularly trumpets studies finding gender-related mental differences while ignoring the (far more common) studies which finds no differences at all (Henson, 2002). Dismissive explanations such as 'women just aren't interested in computers' or 'women aren't as smart as men', implicitly reinforce the stereotypical mentality that women are genetically pre-determined from conception to not be interested in computers.[12] This 'just aren't' theory has been used in many other fields when women first began entering them, from education to medical science to even joining the armed forces.

Even if women are able to acquire better education and training and begin to enter ICT fields in greater numbers, women's leverage within the ICT job market may be undercut by the feminization of certain ICT occupations whereby "large numbers of women enter a profession and as a result, there is a drop in

---

[11] Women's ability to work is significantly shaped by the availability of childcare, flexible work hours, and maternity leave. While in many countries, governments mandate that employers provide for these benefits, the extent to which these are actually provided relies heavily on the decisions of the employer, which are more often than not, guided by actual costs incurred as well as opportunity costs.

[12] Sceptics are constantly amazed at how illiterate women, if taught effectively, can quickly learn how to use the computer. For example, on 23 March 2000, an illiterate woman launched the e-governance programme in Rajasthan in Nyala village in the presence of the ex-US President Bill Clinton. Kailashi Devi was tutored over two days to operate an ICT-based system, clicked on Rajasthan Government's site and showed President Bill Clinton the immunization card of the health department (see http://www.rediff.com/news/2000/mar/24josy.htm for details). Clinton, impressed that an illiterate village woman could retrieve information on neo-natal care from the Internet, later stressed at the need for similar community centres all over the Mississippi Delta.

salaries, status and working conditions" (Hersh, 2000). As Reardon warns, "as computer-based skills become more commonplace, and as the need for more workers to use them in a greater variety of ways grows, more women will again be recruited. But this will be at a lower wage because these will no longer be considered specialist skills, merely something that women can do" (Reardon, 1998).[13] Feminization has plagued other sectors, perhaps with the exception of law and medicine, and Hersh raises the question of how engineering and ICT professions can be opened up to women and "become a genuinely gender neutral profession without a resulting drop in salaries and status" (Hersh, 2000).

A cornerstone of gender equality is women's equal participation in decision-making. Collective participation is also one of the essential aspects of women's empowerment. Participation in decision-making is integrated with 'conscientization', process of awareness raising among women about gender discrimination and the resulting oppression it creates for women as a social group. Through this process, women collectively analyse various aspects of gender inequality that they face. This process constitutes women's development and becomes the basis for action to overcome and dismantle gender inequality in control of resources. Achieving control is an essential element of women's empowerment that includes the ability to direct and/or influence events to protect one's own interests. Control makes it possible for women to ensure that resources as well as the benefits that the use of these resources can bring are distributed so that women and men get equal shares. This framework is particularly useful in understanding and evaluating the impact of women's access to ICTs. Gender gaps in access to ICT resources and services remain an obstacle to women's empowerment (see Box 3).

In investigating the impact of ICT and development on gender equality, it is essential to trace the factors that govern its production, consumption, distribution and appropriation. Women and men traditionally have different levels of access to and control over resources, whether they exist in the private or public spheres.

Box 3: The Same Old Story?

While efforts are underway to increase ICT access, improve capacity and enable usage for all – or at least for more – questions are arising about how well those efforts are reaching women in developing countries. It's the same old story, in some ways, with a high tech twist. Early returns suggest that women are neither participating in nor benefiting from the efforts at anywhere near the same level as men. The familiar and still formidable constraints are again rearing their ugly heads – poverty and illiteracy, lack of time, insufficient skills – with 'technophobia' and male-dominated, corporate control of technology added to the list. Accompanying the questions and constraints are the continuing debates about the relative value of 'Women in Development'-type initiatives vs. 'gender mainstreaming' as responses. Noteworthy progress notwithstanding, after a quarter of a century of exploring, analysing, debating and experimenting with approaches to meeting women's development needs, one still faces daunting difficulties and dilemmas when it comes to striving for gender equity.

Source: Fontaine, M. 2000. A High-Tech Twist: ICT Access and the Gender Divide. Knowledge Enterprise Inc.
http://www.TechKnowLogia.org

Where are Women in the Globalized Information and Communication Society?

In a globalized[14] world where international trade and financial systems have become so dependent on ICTs, it has become an arena that women cannot afford to not be a part of. Despite being a very new field in most developing countries, the ICT sector is already being entrenched with gender inequities that are so well-ingrained in other sectors, from gender employment patterns and gender stereotyped division of labour to gender role biases. These could take the form of preference for male workers because of the perceived physical demands of the job or the perceived higher level of skills and experiences which are in turn due to men having easier access to more opportunities, or the provision for differentials in salaries

---

[13] Certain kinds of work, because they are historically performed by women, have come to be defined as 'unskilled' (and therefore low-pay). Effective call service often requires a great deal of performative or emotional labour, but such labour is naturalized as 'inherent' to women and therefore undervalued (Costanza-Chock, 2003: pp.11-12).

[14] Globalization (also frequently referred to as global restructuring to emphasize its social aspects) (Marchand and Runyam, 2000) refers to the phenomenon that emerged in the 1970s involving the spatial reorganization of production, movement of industries across borders, and spread of financial markets that resulted in flexible production methods and integration of production into global commodity and production chains. "Businesses could treat the whole world as their field of operations and re-deploy their capital and move the location of their production at will" (UNIFEM, 2000).

due to the man being perceived as the main breadwinner of the household. Women tend to be poorly represented as administrators and managers and concentrate in lower level, end user positions. On a higher level of skills, women tend to be well represented in desktop publishing and software programming, but not in hardware design, operating systems or computer maintenance.

Swasti Mitter says that, "technological innovations become commercially successful if and when the creator of the innovation could make use of political, economic and legal networks. Thus the dominant group in a society determines the shape and direction of a society's techno-economic order - and the image of an inventor has almost always been male. Lack of access to relevant networks in the public domain explains the historical marginalization of women's contribution to technological innovations" (Sarkar, 2003). Unfortunately, it is a reality that women are not seen or encouraged to be 'creators' but rather more as 'consumers' of ICTs.[15]

Access to ICT, Women's Use and Challenges

Nancy Hafkin and Nancy Taggart (2001) in their document entitled *Gender, Information Technology, and Developing Countries: An Analytic Study* provides valuable insights as to where women are in the still defining globalized information and communication society. In their review of available sex-disaggregated statistics/data on Internet use, which had to be sourced from marketing surveys and *ad hoc* research projects,[16] the authors found the figures by country puzzling as there did not appear to be any correlation between women's Internet usage and expected indicators such as female literacy rate, female GDP per capita, female representation in professional and technical jobs, or even gender empowerment. Nor were there regional patterns to women's use.

No correlation could be found in developing countries either between a high percentage of users overall and a high percentage of women users, as there is in the developed world such as in the USA and Japan (Hafkin and Taggart, 2001). This lack of correlation supports the hypothesis that many women Internet users in almost all developing countries are not representative of women in the country as a whole, but rather are part of a small, urban educated elite. A study by Asian Women's Resource Exchange (AWORC) on gender and ICT issues in the Asia-Pacific confirms this (Ramilo and Villanueva, 2001). Figures of relatively high (e.g. 30 percent or more) women's Internet use as a percentage of total users per country can be misleading when Internet access is confined to a tiny elite of high-income urban dwellers. This urban elite centricity is particularly true for countries like the Philippines and Malaysia, where the latter boasts of extremely good telecommunication infrastructure.

Figures by the Internet World Stats show that Asian Internet users as at the end of June 2006 experienced a growth of over 232 percent and represent 36.5 percent of global users, but penetration (percentage of global population) is only 10.4 percent (see Table 1). By regions, in 2004, women were 22 percent of all Internet users in Asia, 38 percent in Latin America, and 6 percent in the Middle East. No regional figures by sex were available in Africa. In the two latter regions, less than one percent of the total population was connected to the Internet.[17]

Unfortunately, there are no comprehensive surveys that document all the uses women make of ICT in developing countries. However, the early adapters of the technology in developing countries were non-governmental organizations (NGOs) working on women's rights and empowerment issues on behalf of women. This was clearly the case when women mobilized around the world in preparation for and in their actual participation at the Fourth World Conference on Women in Beijing in 1995. In these cases and in the cases of women entrepreneurs in small- and medium-sized enterprises (SMEs), women are using ICTs to make their organizations and businesses more efficient and effective. Where these groups

---

[15] In the case of consumer applications, the international private sector is attempting to capture women's purchasing power while clothing its efforts, in the language of gender and ICT advocates, as 'empowering women', but clearly targeting women who have significant amounts of disposable income (Hafkin and Taggart, 2001: p.19).

[16] As the International Telecommunication Union did not have sex-disaggregated data, other sources that did have sex-disaggregated data had to be sought out and used.

[17] According to Nua Internet Surveys (http://www.nua.ie/surveys/how_many_online/), the art of estimating how many are online throughout the world is an inexact one at best. Surveys abound, using all sorts of measurement parameters. However, from observing many of the published surveys over the last two years, here is an 'educated guess' as to how many are online worldwide as of September 2002; the number is 605.60 million globally, with 6.31 million in Africa, 187.24 million in Asia and the Pacific, 190.91 million in Europe, 5.12 million in the Middle East, 182.67 million in Canada and the USA, and 33.35 million in Latin America. Since accessing this data in 2005, it is now only available to subscribers, see http://www.gdsourcing.com/statslinkcanada/IndexFreeE.asp#I

Table 1: Internet Usage and Population of the World					
World Regions	Population (2006 Est.)	Population (% of World)	Internet Usage, Latest Data	% Population (Penetration)	Usage (% of World)	Usage Growth, 2000-2005 (%)
Africa	915,210,928	14.1	23,649,000	2.6	2.3	423.9
Asia	3,667,774,066	56.4	380,400,713	10.4	36.5	232.8
Europe	807,289,020	12.4	294,101,844	36.4	28.2	179.8
Middle East	190,084,161	2.9	18,203,500	9.6	1.7	454.2
North America	331,473,276	5.1	227,470,713	68.6	21.8	110.4
Latin America/ Caribbean	553,908,632	8.5	79,962,809	14.7	7.8	350.5
Oceania	33,956,977	0.5	17,872,707	52.6	1.7	134.6
WORLD TOTAL	6,499,697,060	100.0	1,043,104,886	16.0	100.0	189.0

NOTES: (1) Internet Usage and World Population Statistics were updated for 30 June 2006. (2) Demographic (Population) numbers are based on data contained in the world-gazetteer website. (3) Internet usage information comes from data published by Nielsen//NetRatings, by the International Telecommunication Union, by local NICs, and other other reliable sources. (4) For definitions, disclaimer, and navigation help, see the Site Surfing Guide. (5) Information from this site may be cited, giving due credit and establishing an active link back to http://www.internetworldstats.com. ©2006, Miniwatts Marketing Group. All rights reserved.
Source: http://www.internetworldstats.com/stats.htm, accessed on 23 August 2006.

of women are concerned, women have strived to be their own agents of change and decision-making, ensuring that the technology serves them.

However, while the AWORC study acknowledges that the rate of increase in the use of ICTs by women's organizations have been rapid, women's full access to the benefits of ICTs have largely been for administrative purposes (Ramilo and Villanueva, 2001). These findings seem to imply that women's use of ICTs is driven by their practical realities and needs, which may or may not directly challenge gender inequalities and/or inequities within the local context. The experience of Projek Ikhtiar, however, does suggest that while women are driven by their practical realities and needs, they will be unable to fulfil these needs effectively if gender issues on control and decision-making remain unaddressed.[18]

Another prominent challenge is the lack of relevant local content and the continued predominant use of English, which makes ICT seem highly irrelevant to many women in the Asia-Pacific region, and much of the developing world. Women continue to be more inclined towards ICTs that are more audio in nature, such as the radio and even the mobile telephone.[19] For example, recognizing the relevance of radio and its proliferation as a reality in most women's lives, especially those who are not employed outside of the homes, the Women's Aid Organization (WAO) in Malaysia focused its public education strategy on providing awareness and information on basic rights to women, through the radio. WAO targets non-Malay or non-English speaking audiences whom, through experience at the WAO Refuge, were either short of time or had costs and literacy obstacles in gaining information through print media, television or new forms of ICT. Working through the radio has been very successful as the number of phone calls to the Refuge invariably increases whenever there is a programme aired (Kee, 2004). Hence, community media centres which promote women's issues and content can be an effective approach to providing development solutions but within a gender equality framework.

Mainstream media can also be encouraged to host gender transformative and women-centred programmes.[20] Women prefer technology that is audio in nature not purely because they are illiterate or semi-literate, but largely because they do not speak English, the predominant language of the Internet

---

[18] See Gibbons, D. S. and Kasim, S. 1990 for more details.
[19] Grameen Phones in Bangladesh is another example where women with low levels of literacy can still effectively adopt new ICTs in their lives. The experience such as that of Grameen Phones further testifies that women's illiteracy should not be equated to their lack of wisdom, survival skills or of resilience. For more information on Grameen Phones please visit http://www.opt-init.org/framework/pages/appendix2Case2.html. See also Bayes, A., von Braun, J., Akhter, R. 1999. 'Village Pay Phones and Poverty Reduction: Insights from a Grameen Bank Initiative in Bangladesh'. *ZEF-Discussion Papers on Development Policy* No. 8, Center for Development Research, Bonn, May, p.47. http://www.telecommons.com/villagephone/Bayes99.pdf
[20] WAO has successfully partnered with both mainstream radio stations and the web-based radio station, Radiqradio.com. However, it took NGOs in Malaysia more than a decade to get the Domestic Violence Act enacted before issues of domestic violence started to be taken up more readily by the mainstream media.

and the new knowledge-based economy. A cheaper alternative in telephony that is now available is VoIP, which unfortunately is not allowed in many countries because it affects the profits of telecommunication monopolies (Sprigman and Lurie, 2004).[21]

While ICTs include a variety of technologies, the Internet has proved the most innovative and fastest-growing new technology. This network of networks has become critically important in the development of the new information and/or knowledge society, contributing to the development of what many are now calling the new knowledge-based global economy. Many of the more traditional ICTs such as radio and television broadcasting are converging on the Internet, using it, becoming part of it, and often becoming indistinguishable from it (APC, 2003). In our race to be part of the new knowledge-based economy, it is imperative that governments substantially consider that in many cultures, women have been at the core in safeguarding and passing on traditional knowledge and wisdom. While the recording of this traditional knowledge and wisdom is still done with the use of speech, drama, painting, song or dance, the use of writing and the invention of the printing press has changed information and communication means tremendously.

The knowledge, culture and tacit skills of women should be respected and enhanced through the use of ICTs, thereby enabling a better preservation and transference of traditional knowledge, wisdom and skills. It is also equally important to ensure that the tacit and uncodified knowledge of women, and the material resources of their traditional use in the household and in micro and small businesses, are not appropriated by the corporate sector in the developed world. Codification and digitization of women's knowledge should not lead to patenting, a trend that could deprive rural and semi-literate women of their livelihoods and ways of life. Instead of an intellectual property regime that privatizes knowledge, an inclusive knowledge society must fully embrace women's knowledge including knowledge that is contextual, rooted in experience and practice, and draws from local knowledge. In addition, it means ensuring that the information needed by specific communities is generated, and that accessing society's knowledge is possible and affordable to all.

Trends in the ICT Sector and Gender Implications

The perception of women being passive consumers of ICT rather than producers extends to their work-related use as well, where one continues to see a feminization of lower level ICT jobs and women in a more reactive role of receivers of ICT-type jobs. Women continue to be concentrated in tedious, repetitive tasks as when they were during the first wave of industrialization, in manufacturing sectors such as textiles, clothing and electronics. The lower skilled ICT jobs that women typically find themselves in are word-processing and data entry. Trends and dynamics of global job distribution have also seen women taking up more social-related ICT jobs such as working in particular divisions of the call centres industries, information-processing, banking, insurance, finance, printing and publishing, where skilled requirements are relatively lower than in software development. The entry of women in the new technology service sector is not only recent, but there are fewer jobs numerically compared to those that had been created in manufacturing.

Women's employability status has also considerably weakened as women who had lost manufacturing jobs were generally not qualified and unskilled to enter into the new service industry. The service jobs show a preference for young women, familiar with English, single and better-educated than those who had worked in manufacturing. In call centres in the Philippines, employees – both women and men – commonly recount that they are trained to speak in an American accent, and are even expected to handle emergency calls which get redirected to these call centres outside of the country concerned (interviews conducted by WomensHub, Philippines).

Women tend to represent a very small percentage of managerial maintenance, software developers, or design personnel in operating systems and networks. Summarizing the results of the United Nations University / Institute for New Technologies project on *Monitoring the Impact of Technological Changes in*

---

[21]Telkom, a formerly state-owned monopoly and the owner and operator of South Africa's telephone network, was privatized between 1997 and 2003. Despite enjoying an advanced network backbone, Telkom does not offer basic telephone service to a majority of South Africans. As it depends on revenues from phone calls, Telkom has little incentive to offer cheap VoIP service. South African law dictates that only Telkom and 'under-serviced area licensees' (small firms in rural areas) are allowed to offer VoIP, yet the government has not approved a single under-serviced area licensee. So today, for a variety of regulatory reasons, only Telkom can provide VoIP. For competitive reasons, it does not. (Sprigman and Lurie, 2004).

Women's Employment in Asia, Swasti Mitter (in Ng and Kua, 1995) concludes that the introduction of new technologies has changed women's work in three ways by:

1. Altering the process of production in manufacturing and service industries through automation, de-skilling of workers and augmenting the skills requirements of key jobs;

2. Introducing new products or services in the market, such as electronics, computer peripherals or information processing work; and

3. Shifting production that often used old technologies to locations that are distant from the main sites of commercial units or to home-based workers.

Evidence also indicates that women are conspicuously absent from decision-making structures in ICT in developing countries. These structures include boards and senior management of private IT companies, senior management and advisors of international policy and regulatory organizations, technical standards-setting organizations and industry, and professional organizations. In line ministries of developing countries, out of 201 senior government officials responsible for ICTs in developing countries, only 11 are women (5.5 percent). Although the numbers are miniscule, it is notable that there are more women in senior government positions related to IT in Africa than in other regions.[22]

Women's representation is also very low in International Trade Union Study Groups, which are able to influence the direction of the development of information and communication infrastructure and standards in developing countries. Likewise, women from developing countries are absent among the 19 directors who sit on the board of the Internet Corporation for Assigned Names and Numbers (ICANN), the non-profit corporation that assumes responsibility for Internet address space allocation and related matters, and is therefore a major decision-making body and player in the Internet world. Women in key decision-making positions in ICT have the potential to influence how ICT is allocated, applied and developed in their countries as well as at regional and international levels. These women are able to facilitate the entry of other women into the arena and alleviate some negative impacts of the technology on women and girls.

Despite the appalling statistical scenario of women and ICT use, and its 'easy-to-miss' implications on women's employability, women have taken on leadership roles in technology, debunking the 'women just aren't' argument, of women not being technically inclined (see Box 4).

It is important that this information is shared with a wider audience of women and girls to help reverse the mentality and attitude women generally have towards technology as a result of years of socialization that says 'technology is a male domain'. As Swasti Mitter expressed in her keynote address at the Global Knowledge II Women's Forum in Kuala Lumpur, Malaysia in 2000, "it is not only in the production of content, but also in the sphere of production of technology that women's presence is necessary for an efficient and equitable knowledge society…The prospect of addressing women-specific questions in the configuration of software remains remote unless women themselves become visible in the community" (Mitter, 2000).

Gender Implications in Skills and Capacity Development in Science and Technology

To some extent, the traditional view that women tend to shy away from technology is becoming less of a reality as women represent more than 30 percent of university level students in natural sciences in a large number of developing countries across the regions (Hafkin and Taggart, 2001). In Malaysia, for example, women are at least 50 percent of the students in IT courses at public universities (Ng and Yong, 1995).[23] In Western Asia, enrolment at most universities is predominantly female. The high percentage of women studying natural sciences, as well as other fields is largely due to the fact that many men are sent or get to study abroad, while women usually do not have this option.

---

[22] Nancy Hafkin and Nancy Taggart compiled these figures from lists of senior government officials from developing countries using the ITU Global Directory, 2001.
[23] Also available online at http://www.unu.edu/unupress/unupbooks/uu37we/
uu37we0k.htm#9.%20information%20technology,%20gender%20and%20employment

---

Box 4: Women in Technology

Augusta Ada King

There are five visionaries who changed the face of technology – the unsung Heroes of Computing. These five includes a woman, Augusta Ada King, Countess of Lovelace (1815-1852). The other four are Douglas Engelbart (1929-), Vannever Bush (1890-1974), Alan Turing (1912-1954), and J.C.R. Licklider (1915-1990).

Ada Lovelace, Lady Byron

She is credited with the idea for the first computer program. In 1979 a programming language developed by the US Department of Defence was named in her honour as 'Ada'.

Rear Admiral Grace Hopper of the US Navy

As early as 1953, she invented the compiler – the intermediate program that translates English language instructions into machine language.

Esther Dyson

She has been hailed as the 'most influential woman on the Internet'. She was the first interim chairperson of ICANN and earlier, also the chair of Electronics Frontier Foundation. She has also written the book *Release 2.1*.

Carleton S. Fiorina

She was the President and Chief Executive Officer of Hewlett-Packard Company from 1999 to 2005, and launched the World e-Inclusion programme in October 2000. She also led the Hewlett-Packard merger with Compaq, which was completed in May 2002.

Courtney Houston

She is founder and Chief Executive Officer of eHow, a website that provides 15,000 step-by-step how-to solutions.

Pippa Norris

She has written *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*, outlining the debate between the cyber optimists (who see Internet as a great leveller) and cyber pessimists (who see greater inequality emerging) and examining the evidence in 179 countries worldwide. She is currently the Director of the Democratic Governance Group at the United Nations Development Programme based in New York.

Note: Paraphrased and sourced from selected questions and responses from http://www.i4donline.net/issue/sept-oct2003/quiz.htm

However, these percentages take a sharp dip when a closer examination of the existing workforce in the area of science and technology, and particularly at jobs that require higher levels of ICT skills. Many of these qualified women opt out due to gender-constructed social obstacles – such as tight labour market and the prevailing preference to give men jobs rather than women, lack of suitable mentors and role models, sexual harassment in the field, and so forth (Henson, 2002). Social expectations for women to get married and stay at home is also a prevalent reason, and the 'value' of the woman as a wife can be strongly linked to the level of education obtained.

On the flip side of this coin, it is important to note that a growing number of governments who are experiencing this phenomenon of having more women studying at the tertiary level and doing much better than their male colleagues, are thinking of affirmative measures to allow young men to qualify more easily into universities and to encourage better performance by male enrolees. In this respect, governments may want to not just examine the numbers, but also ask why young men are not doing well or studying as hard as they could. If parents are still giving preference to male child education but this time, sending them abroad despite their poorer examination results, it could account for the poor

performance locally in schools and at university. In short, is this the result of the fact that there is no change in how young men and boys are being socialized into society and their perception of what it is to be male, while there is some change in how young women and girls are being socialized into society, and in their perception of what it is to be female? Will our response be to withdraw or reduce the affirmative measures taken in relation to development initiatives for women and girls and start reallocating resources towards affirmative measures for young men and boys? Something to ponder about, no doubt.

PLACING WOMEN'S EMPOWERMENT BACK INTO THE GENDER EQUALITY FRAMEWORK

…we must guard against falling into a kind of technocratic approach to gender mainstreaming that governments and agencies can adopt, without actually talking to women – particularly women who are poor and disadvantaged. We must guard against regarding gender equality and women's empowerment as a set of technical tools and concepts de-linked from practice, power, and politics.

- Noeleen Heyzer, Executive Director, UNIFEM[24]

The Odd Couple: Development and Empowerment

Empowerment refers to enabling people towards self-determination. For women, empowerment emphasizes the importance of increasing their power and taking control over decisions and issues that shape their lives. This includes having full access to complete information and to self-discern the quality and credibility of such information in making these decisions. To empower women means to understand and address the various dynamics of power and relationships in a particular society which are intertwined with issues of age, class, culture, ethnicity, gender, history and race.

Power is identified with equity and equality for women and men in access to resources, participation in decision-making and control over distribution of resources and benefits. Gender equality is addressed at these different levels with the aim of increasing equality between women and men, and achieving women's empowerment. Access to resources refers to both the means and the right to obtain services, products or commodities. Gender gaps in access to resources and services are a major obstacle to women's development. The process of empowerment includes mobilizing women to eliminate these gaps. Therefore, if development efforts are indeed being implemented within the framework of gender equality, it means that development interventions must ultimately be aimed to empower women.

Needs vs. Rights Mentality

Many countries argue that development and the needs of the community must come first, rather than providing a preferential focus on women's development needs and their rights. And often, what are cited are values that put the community first. Hence communal rights must come first before individual rights, making many countries reluctant to place any priority on promoting and protecting women's rights and autonomy. What many countries have failed to acknowledge, but is open knowledge to everyone, is the fact that communal rights, once gained, are enjoyed at the individual level. The extent to which these are enjoyed by the wider community depends further on the power hierarchies within that community. This ebb and flow of development priorities and choices, however, have yet to fully integrate a gender perspective that is aimed towards the achievement of women's empowerment.

Louise Chamberlain in her paper on 'Considerations for Gender Advocacy vis-à-vis ICT Policy Strategy' suggests that gender advocates need to take a more pragmatic approach, i.e. in her words, the 'business case' approach (Chamberlain, 2002). Chamberlain maintains that gender mainstreaming is revolutionary in many circles and hence, takes too long to attain if a purely rights-based model is used. While she still promotes using arguments of rights, she strongly suggests complementing these with arguments of essential utility. This is not the first time that gender advocates are asked to 'speak the language' of policy makers. Such has been what women's health rights activists have had to do in showing governments that it costs more to 'heal' a woman survivor of rape compared to ensuring that proper laws are in place and duly enforced (see Box 5).

---

[24] In 'Making the Links: Women's Rights and Empowerment are Key to Achieving the Millennium Development Goals', available online at http://www.oxfam.org.uk/what_we_do/resources/downloads/gmd-2.pdf. The original article was taken from an address given at the Workshop on Gender Equality and the Millennium Development Goals, World Bank, Washington DC, on 19 November 2003. Since the article was written, many of the links that the author laid out have been codified in detail in a UNIFEM booklet (2004).

> **Box 5: A Cost-Benefit Myth of Telecentres**
>
> **Myth:** If telecentres have to be economically sustainable, it is not possible to design interventions for the marginalized, including poor women.
>
> **Fact:** New ICTs are remarkably amenable to addressing aggregated demands at the community level; they are versatile enough to meet not only the diverse needs of various social groups but also the range of demands of every individual in a community. Successful pilots have demonstrated that a diversity of models can be adopted to viably address the information and communication needs of the entire community. Telecentres need not be isolated information stations, but rather can form part of existing facilities and institutions – health centres, schools, libraries and community centres – that provide a mix of services and potential cost structures based on cross-subsidization.
>
> The fundamental issue in reaching poor women is not one of profitability of models, but the creation of a set of technology-mediated services and products that allow women to be part of emerging opportunities. Efficient business models will follow effective technology models. A lopsided focus on financial viability in discussions around telecentres has resulted in the undermining of a committed focus on the transformatory and development capabilities of ICTs (Gurumurthy and Sarkar, 2003).
>
> The private sector does not have the incentive to reach the marginalized and where information relevant to the marginalized is to any degree delivered by the private sector, the telecentre has been treated purely as an information shop accessed rarely and randomly by the marginalized and not as a potential force for change. Governments and NGOs trying to harness ICTs need to view the economics of telecentres within frameworks of justice and equity. Public information delivery has to be guided by the cornerstone of accountability rather than of profit. Initial investments required to set up a telecentre will start paying off when information begins to have positive influences on the community – in terms of economic well-being as well as transformation in social relations at community and household levels - as women and the poor start leveraging information and communication resources.
>
> *Source: Selected myth from Gurumurthy, Anita. 2004. 'Box 11: Telecenters: Some Myths' in Gender and ICTs: Overview Report. Brighton: BRIDGE, Institute for Development Studies, p.34.*

However, the pragmatic cost-benefit approach places the burden of responsibility and proof on gender advocates who are not only under-resourced, but do not have access to suitable sex-disaggregated data. Would it be sufficient for gender advocates to point to examples within other sectors such as health and rural development, which have a longer history of data collection and research, in order to exemplify why gender mainstreaming is important? Would ICT policy makers take any interest if these are not examples pertaining directly to ICT?

The fact that gender is cross-cutting should render these examples relevant as any other, yet they are not. Time and again, gender advocates have had to argue as to why gender is important within each and every forum. Governments do have their obligations and responsibilities which they continuously reaffirm of their own free will at various UN conventions and reviews which they are committed or obligated to implement. A more pragmatic approach then may be to design an effective mechanism that will facilitate the various government agencies to actually talk to each other and work together with the national women's machineries.[25] At the least, there must be a mechanism that comprehensively informs all government ministries of the various commitments made at such fora and how these intersect across sectors as well as their implications for policy-making and implementation. However, one unspoken yet often hinted at hurdle may still remain.

There is a general innate fear that remains little spoken of or discussed constructively today, that is, if one promotes women's rights and women's empowerment too strongly, then that person is deemed a feminist and a man-hater. The fear of feminism probably manifests in different ways. One of which, usually, is in the way most policy makers and development programme planners would differentiate gender issues

---

[25] Probably the one and only known successful model of a multi-agency approach is in the area of violence against women (VAW) and the One Stop Crisis Centre. Women's rights activists working in the area of VAW have successfully challenged the notion that domestic violence and honour killings are family matters.

from women's issues, and render 'achievement of equality' in terms of equal numbers between the sexes and, in doing so, fail to pay due attention to affirmative measures that need to be undertaken to ensure women's empowerment. It is time to place women's empowerment back into the framework of gender equality, where it has always belonged, the way on-the-ground activists have been doing on a smaller scale.

Enabling Women's Empowerment through ICT

A number of successful initiatives can be cited from all across Asia that demonstrates how women can acquire ICT-related skills and use the technology, and at the same time have control over their use. In this section, efforts have been made to highlight key initiatives that clearly depict how women can be empowered economically, socially and politically. Considering how women's needs and issues are so interrelated to one another across these three areas, it is not surprising that these initiatives more often than not address more than one area of women's empowerment.

Enabling Women's Economic Empowerment

In Asia, a number of credible models exist that could be replicated to address women's economic issues through the use of ICTs.

The Self Employed Women's Association (SEWA), for example, has been organizing women in the informal sector in India since 1972.[26] It was one of the first organizations globally to realize the potential of using ICTs for the productive growth of the informal sector. SEWA is establishing Technology Information Centres in 11 districts of Gujarat, India to provide computer awareness training and basic computer skills for their 'barefoot managers', build the capacity of women organizers and leaders, and strengthen their members' micro enterprises. It now runs programmes that develop women's abilities in the use of computers, radio, television, video, the telephone, fax machines, mobile phones and satellite communication. Electronic networking is expected to strengthen the connections between the various cooperatives working in different sectors and areas, and currently enables the provision of content tailored to the needs and environment of particular groups of villages. In addition, members of SEWA are able to access government schemes and tap into new markets. In the second phase, the centres will also support the education of girls.[27]

The best known of the ICT-enabled businesses with a high percentage of women owners/operators is Grameen Phones in Bangladesh. The Grameen Bank took a focused approach to gender and development through their model of poverty reduction, serving as a source of micro-credit and literacy training, skills development, and health, family planning, and political consciousness education directed at women.[28] In 1996, the Bank set up Grameen Phones, Bangladesh's first cell phone network. Grameen Phones is particularly noteworthy because of the economic empowerment that it has brought to poor, largely uneducated women. From among its more than two million predominantly women borrowers, the Bank management selects Village Phone Operators to whom the phone is provided as an in-kind loan. The operators resell wireless phone services (incoming and outgoing) to fellow villagers.

Some 75 percent of the operators are women, numbering about 2,000 (see Box 6).[29] Having women operators promotes women's phone usage because women are more likely to use phones when the operator is a woman. Where women were operators, 82 percent of the users were women; with men operators, women comprised only 6.3 percent of Grameen Bank phone users. More than half of women users (58 percent) said that they preferred women phone operators.[30] The phones are used primarily for calls relating to financial matters, particularly relating to remittances, which are a significant source of

---

[26] As a union, SEWA's current outreach stands at about 530,000 women members. For more information on SEWA, see http://www.sewa.org

[27] 'The information technology revolution: Widening or bridging gender gaps', in International Labour Organization's *World Employment Report 2001*. http://www.ilo.org/public/english/support/itcom/

[28] Grameen effectively raises consciousness by laying down certain rules of conduct that borrowers are required to follow. These range from boiling water and setting up their own safe household water supply to non-payment of dowry for marriages. Grameen therefore interfered and challenged cultural norms and given power dynamics within the community and the family.

[29] Twenty-five percent of telephone operators are men, a much larger percentage than their representation in the borrowing population as a whole (5 percent). As the Grameen Bank chooses the village operators, the male management of the Bank made a gender-based decision in selecting a disproportionate number of male operators.

[30] 'Grameen Telecom's Village Phone Programme: A MultiMedia Case Study'. TeleCommons Development Group. March 2000. http://www.telecommons.com/villagephone/

village income. Strikingly, among poor villagers, 38 percent of phone users had one or more family members living abroad. The phones are also used to obtain agricultural price information, thereby improving the position of the villagers in bargaining with middlemen and resulting in higher prices for local farm products.

Box 6: Grameen Bank's Women Phone Operators

The Grameen Bank's women phone operators are generally poorer than the average villager. However, the income that they earn is significant, generally accounting for 30-40 percent of household income and averaging US$ 300/year in a country where average per capita income is US$ 286. The operators are likely to be married (90 percent), and half of them have no formal education. Another quarter has primary education and the remaining quarter, some secondary education. Thirty-six percent identify themselves as housewives, and only 6 percent have some kind of formal employment (in government or business).

The women operate their phone businesses while doing household chores or operating another business. Current Village Phone Operators are likely to become managers of the expanded telecommunications services. Village Phones have made women phone clients and phone business operators. They have created a 'phone culture' among women by enabling their access to communication tools from which they might otherwise be excluded. They have also shown that poor, largely uneducated women can master the skills and run a small business.

Women phone operators have achieved economic and social empowerment within their households and communities. The relatively substantial revenue stream has elevated the women operators' positions in their own households, particularly in decision-making. As a result of being a phone operator, better-off villagers come to homes they would ordinarily not frequent, thereby raising the status of the operator. The advantages of small-scale telecommunications businesses for potential women entrepreneurs are that there are no educational requirements, except for minimal mechanical aptitude, and that the capital requirements are small enough to be met through micro-credit schemes. Not only do these businesses provide income and employment for the entrepreneurs – they also accelerate development in areas where telecommunications were scarce or nonexistent.

Source: Hafkin and Taggart, 2001.

Governments too have undertaken some initiatives in building up the capacity of women in the area of ICT, in particular the Korean and Malaysian governments. For example, between 2001 and 2002, the Ministry of Information and Communication of the Republic of Korea, trained one million housewives in computer and Internet use. The Ministry of Labour runs computer training for unemployed women, especially those who are heads of households. The Ministry of Education and Human Resource Development has a project to enhance ICT skills of girl students from elementary through high school. The Ministry of Gender Equality has organized programmes at 12 Korean universities for women who want to work in an e-business or to start Small Office-Home Office businesses. Asian Pacific Women's Information Network Center (APWINC) at Sookmyung University trains women to work in IT, including as freelancers and in their own businesses.

The Ministry of Agriculture and Forestry encourages the use of ICTs by women farmers through onsite and mobile computer education and technical support services. Real-time information on market prices is posted on the website. The website also operates a shopping mall for agricultural products. Technical assistance is available to farmers in building personal websites. The Kyonggi Province Programme for women IT professionals (http://www.womenspro.org) provides training and lifelong education for women tailored to the different stages of women's lives. Unemployed women, women heads of households and handicapped women who want to enter the work force are trained in business incubation and capacity building (including gender training). Women are trained for 10 to 12 months as IT specialists, and at the end of it, they either seek employment or start their own businesses. The course made numerous accommodations to meet women's needs and daily schedules.

In Malaysia, the Demonstrator Application Grant Scheme (DAGS) proved to be an extremely successful model that promoted collaborations and project-based partnerships among governmental agencies, small ICT private sector enterprises, CSOs, as well as the community (see Box 7). Among the 74 projects funded, a number were aimed to benefit women, and included women's capacity building in the use of

ICTs. For example, the project called *T-Center For Teleworking and Telecommuting* was designed to guide 200 participants, mainly women and youths, to learn and acquire teleworking skills and to enable them to adapt teleworking as a new mode of work. Another project that was funded under the DAGS scheme is the e-Homemakers' Project (http://ehomemakers.net), the only tri-lingual local portal that promotes the concept of working from home by providing resources and a platform for homemakers and homeworkers to teletrade and tele-exchange. A Women's Electronic Networking Training (WENT) Award[31] winner in 2003, this project provides basic ICT skills training to disadvantaged and special women to enable them to participate effectively in this knowledge-based economy. The project prepares them to work at home through other soft skills trainings and empowerment exercises.

Box 7: Malaysia's Demonstrator Application Grant Scheme

DAGS was officially launched in 1998 and was a key initiative for the realization of objectives set out in Malaysia's National IT Agenda. Additionally, DAGS enabled all Malaysians the opportunity to be acculturated and involved in community innovation projects and related activities. The grant scheme was a platform to build human capacity and capability through ICT applications. Initially, the Scheme was granted MYR 50 million under the 7th Malaysia Plan, which ended in December 2000. Whilst under the 8th Malaysia Plan (January 2001-December 2005), the amount increased 100 percent to MYR 100 million. DAGS funded a total of 74 projects with total funding of MYR 104.8 million, covering different target communities. The majority of the projects focused on community development. From these 74 projects, an estimated 1.8 million people from different target communities benefited from ICT exposure in various ways.

Source: DAGS Pride II, CD-ROM, Mimos Berhad, 2004. http://www.DAGS.net.my

---

The examples above bring out the following key elements:

▸ Women are culturally not exposed to establishing and running a business. In fact, in most countries, trade is generally a male domain as well, and businesses can succeed or fail by whom you know and do business with. Hence, women will not only lack business management skills but also business development/marketing skills and a business network. Women should either be supported (mentored but not made reliant) with the necessary expertise by a third party or be trained specifically on these skills. For almost all of the examples above, women who are enabled to run small businesses are almost always provided a 'captured market' of peers and fellow villagers/community members, a small but still necessary start-up niche.

▸ Grameen's approach, on the other hand, operates on the notion that the woman knows best on what she has to do given her situation, capacity and needs. What Grameen spearheaded was a development approach that placed resources into the hands of poor women and empowered them with control and decision-making over the use of these. In setting up their system of accountability among their borrowers, Grameen successfully challenged certain cultural norms and entrenched gender-power dynamics.

Enabling Women's Social Empowerment

Women's social disempowerment is often strongly linked to her isolation from information that she needs, and this includes her ability, opportunity and space (both virtual and non-virtual) to communicate in her own local language with others for this information.

In India, Change Initiatives is putting a web-based information system to strategic use for the benefit of poor women of Baduria, a rural region in North-24 Parganas district in the Indian state of West Bengal. The project, Nabanna, is a collaboration exercise among Change Initiatives, United Nations Educational, Scientific and Cultural Organization (UNESCO), National Informatics Centre, researchers of the London School of Economics and Queensland University of Technology, and the Baduria Municipality.

---

[31] WENT was an Asia-Pacific regional annual training for women in the use of ICTs, and was a project that was implemented for five years continuously. At the end of those five years, an award was funded by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) as a form of acknowledgement to the most successful WENT graduate who applied her learnings from WENT for a selected community or within her own organization.

In 2002, concerned over the lack of penetration of ICTs among the rural poor, Change Initiatives found that absence of information and an information-sharing mechanism among poor women have thwarted their ability to fulfil basic needs, restricted their awareness and blocked their desire to break barriers that limit their participation in society. The findings were the result of a survey among woman NGOs and self-help groups (SHGs) in rural regions of North-24 Parganas.

As a pilot for the project, Change Initiatives decided to work among poor women of the Baduria Municipality – despite being an urban body, the municipality was to all intents and purposes a rural region – who were involved in its Community Development Scheme. In its application for the inaugural Gender and ICT Awards,[32] Change Initiatives shared that, "since Nabanna involves and affects many people, we had to understand many viewpoints in order to formulate plans and track progress. A key feature that distinguishes our project is that it involves people in all four stages of planning, doing, observing and reflecting."

For Nabanna, Change Initiatives had developed a novel participatory rural appraisal tool where they had asked the candidates to maintain diaries on their lives. The diaries were an effective tool for needs assessment, in addition to being a vehicle for self-expression. Change Initiatives further shared that, "our biggest achievement until now is in instilling a sense of personal empowerment among the beneficiaries by just ensuring greater access to and use of ICTs. We find that our beneficiaries can raise their voice within their family; are respected by their husband, in-laws, parents and other family members; are considered knowledgeable persons in their community (since they learn computers); and have become more creative after learning graphic art software programmes. Many of them said that by learning computers, they would be able to approach the job market with greater confidence. Over and above this, is the emergence of solidarity that has resulted through the correct perception of the ICT centres being spaces reserved exclusively for women. While learning computers, our beneficiaries often discuss their problems, creating a sense of unity among them and also bringing forth the leadership qualities in them. Solidarity outcomes have also been noticed in our review of information group meetings."

WENT[33] is one key regional training in the Asia-Pacific region that surprised both project owners and donors. Started in 1999 as a project-based initiative, this regional training continued to be jointly managed by the APC WNSP and APWINC on behalf of AWORC until 2004. WENT began by training women on basic website development tools and other Internet-based group communications in 1999. WENT sought to promote greater networking among women's organizations in the region and enhance their capabilities on the use of ICTs to advance their social and policy advocacy.

The first WENT workshop trained 23 women from 11 countries to use email and web-based services to promote and enhance their participation in the review process for the Beijing Platform for Action. In response to various information and communication needs of women in the Asia-Pacific region, WENT then diversified its training. Since 2000, WENT ran parallel instructional tracks on web-based information management, local area networking, using ICT for advocacy, and database management. In 2004, instructional tracks focused on e-commerce, content development, and training for ICT trainers. From a workshop designed for women's organizations in the Asian region by women ICT practitioners, WENT has opened its doors to women and their organizations in the Asia-Pacific region. Women coming from relatively under-represented countries such as Bangladesh, Cambodia, East Timor, Kyrgyzstan, Lao PDR, Russia and Uzbekistan have also graduated from WENT. By 2003, 138 women from 23 countries had been trained under WENT's methodology. Since then, WENT has been successfully replicated in Africa and nationally in the Republic of Korea (1999), the Philippines (2002), Malaysia (2002) and India (2003). WENT is now being planned for the Pacific and the Middle East and North Africa region.

The above examples tell us that in enabling women's social empowerment, access to ICTs alone is insufficient. Content must match women's needs in order for ICTs to remain relevant in women's lives. As needs change, so must content. With WENT, year after year, content evolved to match women's capacity building needs as women in the region gained more opportunities and exposure in using ICTs. What

---

[32] The Gender and ICT Awards is a collaborative project between the APC WNSP and the Global Knowledge Partnership (GKP). The inaugural awards ceremony took place in Geneva in conjunction with WSIS in December 2003, where Change Initiatives accepted their award as the winner in the category of 'Advocacy and Networking'. For more information on Nabanna and other Gender and ICT Award winning projects, visit http://www.genderawards.net

[33] The WENT Workshop, strongly supported by UNESCAP for five consecutive years, was initiated by AWORC. AWORC is an Internet-based women's information network founded in 1999 to develop cooperative approaches and partnerships in increasing access to and exploring applications of new ICTs for women's empowerment. The members of AWORC include women's information, resource and documentation centres; women's information providers and users; and communications organizations working closely with women's networks. More information can be found on the network at http://www.aworc.org/index.html

Change Initiatives and WENT did was to provide 'safe spaces' of communication and exchange that forged women's solidarity within these spaces. As a result, women strengthened each other in their learning and sharing, knowing that they are no longer alone, no longer isolated.

There is an additional dimension to the notion of communication as women's communication rights is a difficult issue to address purely by ensuring physical availability of ICTs. Access to ICTs alone does not take into account who controls these resources. If women need permission from their husbands on exactly when they can turn on/use the radio and the types of radio programmes they can listen to, having a radio in the household as an indicator of success is extremely misleading. Likewise, the establishment of community telecentres alone is insufficient to assume that these will impact and serve women and men equally. Women's heavy workloads and multiple roles that limit their available time to use the telecentre; male attitudes towards women's use of technology and to women who visit a mixed-sex public facility; the lower educational levels of women compared to those of men, and therefore their lack of literacy skills; the lack of relevant content for women in their local languages; and their lack of disposable income for fee-paying centres, are all gender-based factors that constrain women's use of the telecentres. Availability is not equivalent to access and access is certainly not equivalent to control and decision-making.

Enabling Women's Political Empowerment

ICTs have been applied as agents of change in enabling women to participate directly in politics and civic life. The important role provided by ICTs enables an increased opportunity for positive facilitation of public and political participations and rightfully serves as an attempt to replace the traditional form of governance and its accompanying deficiencies with a modern, more open, transparent and responsive service delivery system. As Vikas Nath says, "the new models of governance open up avenues for direct participation of women which so far has been limited to representative forms of participation in which women were insufficiently represented. These models would lead to a more interactive and proactive form of communicating with officials in the local governance spheres in a process which will lead to greater transparency and accountability of their actions. The notion of distance and time would become meaningless as the technologies have the capability of working at all times and from all geographical locations. It also means that women in rural areas for whom time is a scarce commodity and for whom it is absolutely impossible to commute to public offices – the new technologies would enable them to leapfrog to an altogether different platform where they can voice their opinions and communicate to the concerned person without additional burden on their time or commuting large distances."[34]

In India, SEWA organizes electronic discussions through the *panchayati raj* (village governance institutions). In these discussions, village women often pose questions that are answered promptly by a panel of experts. Through translation modules, responses go to the women in their vernacular language.[35]

ICTs are also particularly useful in increasing the transparency and accountability of government, an application from which women can particularly profit.[36] Two examples demonstrate how women used ICTs to call upon a national government and a local administration for greater accountability and transparency. In 1999 when a devastating cyclone hit south-eastern India killing hundreds of people, women in India found out from the Internet that the scale of the disaster had been made worse by negligence and ill preparedness of the State government disaster mitigation agency. They became active in calling the government into question on this matter. In another incident, when women students in Bangladesh faced administrative inaction in response to increasing instances of campus rape, they publicized their situation on the Internet. The resulting international and national response pressured the university administration to conduct an inquiry.[37]

In the years 1993 to 1994, in the Northwest Frontier Province of Pakistan, the Deutsche Gesellschaft für Technische Zusammerabeit (GTZ) with the Public Health Engineering Department of Pakistan introduced

[34] Nath, V., 'Digital Governance: Building and Sustaining Democratic and Accountable Governance Structures using ICT', p.9. http://www.cddc.vt.edu/digitalgov/gov-menu.html

[35] Nath, V., 'Empowerment and Governance: Women's perspective', loc. cit., p.7.

[36] There were two dramatic examples from Asia of the role of IT in making governments more transparent and accountable. In response to Internet accounts contradicting the official story, the Prime Minister of China, Zhu Rongji, in a highly unusual action for a Chinese official, publicly recanted the government's previous position on the cause of a tragic school fire in rural China. In India, photos and a story on the website http://www.tehelka.com exposed high-level bribery and brought the Government into crisis. Smith, C. S., 'Chinese Leader Backs Away From Denials in School Blast', and Dugger, C. W., 'The Sting That Has India Writhing', *New York Times*, pp. 1 & 3, 16 March 2001.

[37] Nath, V., 'Empowerment and Governance: Women's perspective', loc. cit., pp. 3-5.

a community-based water and sanitation project that used video technology to effectively address gender issues and include women in the design and planning processes. The project aimed to install tube wells and household latrines, but recognized that women, the main managers and users of water, were excluded from village management and decision-making bodies since no man, foreigner or local, was permitted to meet with them. The *Woman to Woman Video* project provided women the opportunity to speak across the physical boundaries of the *purdah* (custom of seclusion), discuss what water and sanitation infrastructure could be afforded and participate in choosing the best water supply option for their households. A camera was used for filming and linked to a portable, car battery-powered monitor for playback, with no editing required (at the time, most villages had intermittent or no electricity supply). The project showed that older women would agree to be filmed by women; women rather than male engineers were the designers, implementers and overseers of construction; women farmers became motivated to build latrines on discovering they could produce safe agricultural compost after eight months; and that as a result, women were better able to exert pressure on men to invest money in household innovations such as the installation of piped water supply (Wickett, 2004).

A project that possibly captures the potential of ICTs in enabling women's political and civic participation is the e-Seva (e-services) project, which began in the district of West Godavari in Andhra Pradesh, India. The project uses ICTs to provide access to various citizen-to-citizen (C2C) and citizen-to-government (C2G) services to the people living in rural areas. Under this project, web-enabled rural kiosks termed e-Seva centres were established at the *mandal* (a sub-district unit of administration) level. The unique thing about these centres is that they are run and managed by women SHGs and have been able to position the rural women as information leaders to help bridge the gender divide.

The e-Seva centres run on a district portal that allows access to various citizen-centric services. These services range from the issuance of various certificates to getting information about various programmes, and also go to the extent of networking citizens and allowing them the flexibility and convenience of mutually beneficial transactions. The project is an effort to strengthen women SHGs in the district, and through them provide citizens access to various government services in a user-friendly and transparent manner. The project offers a host of services to the citizens living in rural areas. The project allows citizens to file their grievances and applications for various government programmes in these centres. Every grievance is acknowledged and transferred online for bringing in field-level action.

The centres, through the portal, expect to provide a virtual meeting place for citizens to discuss issues relating to the district/villages, its problems and prospective solutions. Citizens can now freely interact with each other to post their ideas. This acts as an online forum for them to share their grievances, air their opinions and trigger the necessary social changes. It also provides opportunity to conduct opinion polls on the important topical issues leading to improved decision-making. The portal, through the kiosks, also enables the administration to pass down important social communications and advocacies for broadcast to the communities.[38]

It is important to note that while e-governance initiatives are promising, many focus only on administrative efficiency and fail to enable the citizen's full political participation in consultative and decision-making bodies or mechanisms. This means that at best, such efforts render women as consumers of information and not equal stakeholders in development. At worst, they completely overlook women's needs and the value of women's knowledge in public policy and programme implementation. The SEWA model and the *Woman to Woman Video* project show that 'giving women voice'[39] alone is not sufficient if there is a commitment to addressing gender equality. The voice expressed must be heard and responded to with substantive affirmative action. Otherwise, even e-government services will lose their relevance to women in the long run.

---

[38] e-Seva was a Gender and ICT Award winner in 2003 under the category of 'Capacity Building'. For more information on this project, visit the Gender and ICT Awards website at http://www.genderawards.net

[39] Many development projects tend to boast of 'giving women voice' by including consultative mechanisms. But if women have expressed their needs and no concrete and effective action is taken with the women as key stakeholders and actors to address these, it gives the impression that the consultation is nothing more than just a token act.

GENDER ANALYSIS IN DEVELOPMENT IS A CONSCIOUS CHOICE

It is true that times have changed and are still changing. The society is evolving day by day and opportunities are expanding, but our socialization relatively remains the same. Except for a few well-educated women, [we] still see gender inequality and low status of women as normal. Therefore, young women even after their university education still see decision-making as a matter for men. Yet you cannot formulate policy without taking decisions or vice versa. It is the learned roles that make the woman not to be ambitious and assertive, and [to be] lacking self-esteem and confidence.

- Onyinye Ndubuisi, participant in 'Talk to Her: A Dialogue to Action among Young Women in ICT'

What are the Challenges in Integrating a Gender Perspective?

Taking on a gender perspective in any type of initiative is fraught with challenges, both conceptual and practical, individual and communal. Fully integrating gender analysis means putting on the gender lens, not selectively, but consistently. This requires viewing all social phenomena from a gender perspective, probing into hierarchical, unequal and unjust relationships between women and men. At the individual level, this requires a consciousness on the part of the wearer to continuously challenge socially accepted roles of women and men that result in harmful health practices or role subordination. This can raise potentially serious conflicts within the individual.

The individual conflict that is a necessary by-product of becoming aware of gender inequalities extends to the community level as well. Gender analysis requires communities to probe into existing relationships among community members towards understanding the inequalities and injustices that exist between different groups within the community. Community organizers, by and large, hesitate to get into gender issues precisely because it is seen as having a divisive function that raises conflict within the community. It is, by far, easier to focus on unifying communities along traditional ways of conduct and roles, rather than to address existing gender inequalities and concerns.

There are also practical challenges in incorporating a gender perspective. This means allocating time and resources in understanding basic gender issues as well as applying such concepts into the context of policies and initiatives. At the community level, this requires a series of gender sensitivity workshops to prepare communities and individuals to address gender issues and concerns. It may also require the services of gender specialists to provide necessary advice to development agencies and planners, as well as gathering resources relevant to different gender issues.

Developing inclusive development strategies with women requires a variety of approaches, or a combination of these, such as the women's empowerment approach, the affirmative action approach,[40] and the Participatory Monitoring and Evaluation (PM&E) approach.[41] Consultation with women and participatory decision-making are not sufficient to ensure that gender issues are considered and addressed

---

[40] The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) recognizes variations of historic or past discrimination and introduces the concept of corrective measures to overcome the effect of past discrimination that leaves women handicapped vis-á-vis men. For example, if a development initiative is offered to women on the same footing as men, according to the principle of equal rights or equal opportunity, it might still turn out that men benefit more than women, because men have more experience, confidence or simply because the environment is male dominated and is more conducive to male participation. This is the effect of past discrimination. Article 4 provides for measures through which temporary special measures or affirmative action and women centred development policy measures can be legitimized to ensure *de facto* equality for women. The Convention goes beyond the law and obligates governments to implement extra legal measures such as separate programmes or policies for women to overcome their disadvantage as compared to men. These are provided for in articles 4.1 and 3 of the CEDAW Convention. The provisions under article 4 has to be enforced to obligate governments to implement policy and programme interventions, even to the extent of reverse discriminations in order to enable women to access the rights guaranteed in the law.

[41] PM&E is a different approach which involves local people, development agencies, and policy makers deciding together how progress should be measured, and results acted upon. It can reveal valuable lessons and improve accountability. However, it is a challenging process for all concerned since it encourages people to examine their assumptions about what constitutes progress, and to face up to the contradictions and conflicts that can emerge. For more information on this approach, please refer to 'Participatory Monitoring & Evaluation: Learning from Change' *IDS Policy Briefing*, Issue 12, November 1998. http://www.ids.ac.uk/ids/bookshop/briefs/PB12.pdf

in the area of ICT. A high level of consciousness and understanding too is needed to discern the kinds of gender issues being raised. Do these further perpetuate the gendered division of labour? Do these just support women in fulfilling their obligatory gendered roles and responsibilities in the household and in the community? What is usually brought to the surface in such consultations are practical gender needs rather than strategic gender interests. With the development of trust and a consistent consultative process, as well as the provision of space for women to come together to discuss these issues, strategic gender interests can be brought out more clearly and addressed more effectively.

Incorporating gender is an ongoing, never-ending process of conceptualizing, activities, and re-conceptualizing. Once the conscious decision and commitment to take on a gender perspective is made, development planners and agencies must be prepared for the long haul. This is perhaps the reason why many development planners and agencies, governments and organizations have remained indifferent to, or at the very least selective in, incorporating gender in their policies and programmes. Gender analysis is not something mechanical that an individual or community can conduct properly based on just guidelines and frameworks (see Box 8) as it can demand that the individual and the community question their own beliefs, long-time practices and values.

Box 8: Gender Analysis Frameworks

Gender analysis frameworks are practical instruments designed to help users integrate gender assessment into social research and planning. Used in an appropriate way, they can identify issues, facts and relationships that affect women and men's lives in any given context. The understanding and knowledge gained from using these frameworks can then be used in planning the work to confront women's subordination, as well as in training and as a basis for gender policy. This growing body of literature to understand the basic concepts and methodologies include: *Gender Analysis: Alternative Paradigms* prepared by Carol Miller and Shahra Razavi (1998); the Oxfam publication, *A Guide to Gender-Analysis Frameworks* (1999) by Candida March, Ines Smyth and Maitrayee Mukhopadhyay; an unpublished UK Government's Department for International Development document on gender planning frameworks; and the 'EGA' or Efficient Gender Analysis Instrument developed by Saskia Sassen for TOOL.

The differentiation in impact of development interventions on women and men can, for example, be assessed using a methodology derived from the Harvard Framework. This methodology has three main profile components: (1) Activity; (2) Access and Control; and (3) Intervention. The Activity Profile asks 'who does what' and attempts to identify labour and activity by disaggregating each by sex, age, and other factors. The Access and Control Profile asks 'who has what' in order to distinguish between access to resources and the benefits that are derived from control. The Intervention Profile asks 'who gets what' and uses the information from the 'activity profile' and 'access and control profile' to determine the likely impact of development interventions on women and men.

Source: APC WNSP, http://www.apcwomen.org

Despite the probable difficulty in internalizing and operationalizing a gender perspective and analysis, however, it is imperative that efforts of integration continue in development. As APC WNSP states, "women compose one-half of the world's population and perform two-thirds of the world's work hours, yet are everywhere poorer in resources and poorly represented in positions of power. As these inequalities constitute a systemic condition in all parts of the globe, it is imperative to take gender seriously in thinking about or understanding economic development and globalization. Gender analysis should include an examination of economics at the micro-, meso- and macro-levels and across a range of institutional contexts (households, communities, markets and states) to illustrate women's disadvantageous position in ICT, and the male bias in measuring ICT outputs which renders women's work invisible."[42]

There are real gender inequalities and injustices in the ICT sector, and ICTs can result in further perpetuating such inequalities and injustices. There is a need to address these gender issues in ICT, and in order to do so, incorporating a gender perspective in planning, monitoring and implementing ICT-led projects is non-negotiable.

---

[42] http://www.apcwomen.org/gem/en/understanding_gem/genderanalysis.htm

What is the Difference between Practical Gender Needs and Strategic Gender Interests?

The differentiation of practical and strategic gender needs is theoretically significant for gender analysis. This distinction is often important in gender planning, becoming the basis for identifying actions. For evaluation purposes, assessing the extent of responding to both practical gender needs and strategic gender interests can inform the impact of projects and initiatives.

Practical gender needs are the needs women identify that do not challenge their socially accepted roles. These needs relate to fulfilling their productive, reproductive and community managing roles and responsibilities. They are practical needs that include basic living commodities such as shelter, employment and food. While practical gender needs are related to existing gender roles, strategic gender interests challenge those roles in favour of equity and equality for women.

Strategic gender interests begin with the assumption that women are subordinate to men as a consequence of social and institutional discrimination against women (see Box 9).[43]

Box 9: Definition of Discrimination Against Women

Discrimination can be direct or indirect and intended or unintended as defined in the CEDAW Convention. This definition spells out in detail the meaning of discrimination against women. It highlights three ways in which different treatment on the grounds of gender can constitute discrimination. Intentional or unintentional disadvantaging treatment that could be classified as follows:

1. Different treatment leading to non-recognition of human rights of women both in the private and public sphere (direct discrimination), for example, the nationality law prohibits women from transmitting citizenship to their children but men can.

2. Different treatment preventing women from exercising their human rights both in the private and public spheres (direct discrimination), for example, only women in a particular country are prohibited from going abroad to work because of the risk of exploitation of foreign workers in many countries.

3. Same treatment preventing women from exercising their human rights in the private and public spheres (indirect discrimination). For example, in a particular institution, playing golf is given a certain number of points for promotion irrespective of whether they are women or men. However, this gives men an advantage as it is mainly men who play golf.

As a result, any act of restriction, exclusion or distinction, whether intentional or unintentional, that impedes the recognition of women's human rights or denies women the exercise of any such right is discrimination.

Source: International Women's Rights Action Watch Asia Pacific. 2001. Building Capacity for Change: A Training Manual on the Convention on the Elimination of All Forms of Discrimination Against Women.

In practice, an approach that emphasizes practical needs may make room for recognition and consideration of strategic interests. On the other hand, satisfying practical needs reinforces the existing division of labour, which subordinates women. Having access to the Internet, for example, does not automatically change the relative position of women to men. An approach that emphasizes strategic interests, often taken up by activists, challenges existing social systems and structures in favour of equality for women.

Project interventions may target gender disparities in one of two ways. They can address immediate short-term needs without necessarily challenging the structural causes of gender inequality, or they can address larger strategic issues relating to the gender interests of women and men to create conditions for gender equality. For example, a project designed to place computer terminals in rural public school

---

[43] The CEDAW Convention, adopted in 1979 by the UN General Assembly and described as an international bill of rights for women, defines discrimination against women as "… any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of women and men, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field" (Article 1).

classrooms addresses the immediate need of improving access to computers without necessarily addressing the strategic interests of improving disparities in female and male enrolment in primary and secondary schools.

A framework that is useful in analysing gender and ICT is the newly emerging cultural analyses of technology. This framework understands both technology and gender not as fixed and given, but as cultural processes which (like other cultural processes) are subject to 'negotiation, contestation, and, ultimately transformation'. This 'technology as culture' perspective goes further than the current viewpoint of women's exclusion from full participation in technological work. In the cultural analyses of technology, technologies are 'cultural products', 'objects' or 'processes' which take on meaning when experienced in everyday life. Whereas technology has been defined as a predominantly male perspective, change comes through a total re-evaluation and appropriate remuneration of women's skilled and technical tasks. Given this framework, transforming the gendered relations of technology is not merely focused on gaining access to knowledge as it is, but with creating knowledge itself. This means being involved in the level of definition, making meanings and creating technological culture.[44]

Box 10: Women Encounter Technology

Mitter's and Rowbotham's anthology *Women Encounter Technology* explores the impact of technology on women's employment and the nature of women's work in third world countries. Their observations provide an 'authentic international perspective' on women and technology that can inform further research. Some observations that are particularly relevant in gender analysis are given below:

▸ Gender is one of many factors that determines the impact of IT on women's working lives. Age, class, ethnicity and religion can play even greater roles in defining women's working position. Similarly, the degrees of exclusivity that arise from the information revolution sharply differentiate regions and communities.

▸ Technological changes affect the quality and quantity of women's work. Along with women's employment benefits from new technologies there are associated health, environmental and other costs. Employment issues of concern to women working in technology relate to contractual terms, intensification of workloads, wages, training, and health and safety such as video display unit hazards and repetitive strain injuries.

▸ Increased job opportunities bring new tensions in women's domestic lives. For example, Acero's case study documents the typical life of a woman textile worker in Argentina: "My marriage started to break down when I started to work…I had more chances than he did. So things started to go wrong." Deeper insights are needed into the links between women' status and role at work and at home.

▸ Women are rarely represented in the decision-making areas of technology. As a number of essays document, women are predominantly only in blue-collar jobs. In the next phase of the technological change these are precisely the jobs that will be vulnerable.

▸ Upgrading women's skills through a continuous learning process benefits women and society.

▸ Radical thinking about training is essential for utilizing women's potential. In particular, training needs to take into account age, class, ethnicity and religion.

▸ Women's sharing of experiences has proved rewarding at community, national and international levels. More international exchanges of experience in organizing around some of the new issues relating to the electronic era are needed in order to ensure that women's employment benefits from new technologies are not outweighed by the associated health and environmental costs.

Source: APC WNSP, Gender and Information and Communication Technology: Towards an Analytical Framework.
http://www.apcwomen.org/work/research/analytical-framework.html

---

[44] http://www.apcwomen.org/work/research/analytical-framework.html

Wearing the Gender Lens and Keeping Them On

As Sara Longwe puts it, "if we wear good spectacles, we shall be properly equipped to recognize the whole picture of the different types of gender problems and their levels of severity" (Longwe, 2002). Longwe identifies five levels of severity of gender problems. These are: (1) General Development Needs; (2) Women's Special Needs; (3) Gender Concerns; (4) Gender Inequality; and (5) Gender Issues (see Figure 1).

Figure 1: Levels of Severity of Gender Problems

Gender Issue	Arises when people recognize that a particular instance of inequality is wrong, unacceptable and unjust. This realization is more likely where the gender gap is large and where women are aware of their democratic and human rights. (It need hardly be stated that that in the patriarchal states of Africa, most gender injustice is perpetrated against women, rather than the other way around). Of course, from a purely moral standpoint, it may be said that gender inequality is always unjust, and therefore an issue. But at the same time, it is difficult in political practice to make an issue of gender inequality if there is not a wide perception that this inequality is unjust.
Gender Inequality	Is a more severe type of gender problem because here the gender concern is always overlaid with gender inequality; typically because women have less access to facilities, opportunities and resources. Because of this inequality in the present systems of allocation, women have a greater need. Gender inequality is here defined as a gender concern that brings with it inequality in allocation and opportunities.
Gender Concerns	Are needs that arise because of gender divisions of economic and social roles. Therefore, examples of women's gender concerns arise from their more domestic location and their concern with child care and food production and preparation. Typically, women are more dependent on the natural environment and with gathering of food and medicine from the natural vegetation or forests. For this reason too, women and men have a very different perspective on development problems as well as a different identification of problems that need to be addressed. A development issue may adjust to a gender concern, but gender issues need to be addressed.
Women's Special Needs	Are defined as those needs that arise from biological or sex differences. Of course, these may be serious problems in the general sense but they are not in themselves gender problems. Obvious examples are the need for maternal hospitals, ante-natal care facilities, and so on. But most child care facilities are not in this category because women's child care responsibilities arise mostly from the gender division of labour rather than biologically given roles. (Of course, gender problems may arise out of women's special needs, for instance, where male control of the government budget leads to lack of funding for maternity hospitals).
General Development Needs	Are defined as those needs that affect women and men equally so there is no sex or gender difference. This is the zero level for seriousness of gender problems. It is often claimed that such matters as the need for roads, transport or water are general development needs. But given the severe differentiation and division of social and economic roles in most societies, it is doubtful whether any need can be put into the category of general development needs. Nevertheless, it may be said that some needs are more general than others where gender differentiation and discrimination are less severe. For example, perhaps roads are more of a general need in comparison with land. In Africa access to land is an area where women have a much greater need being the majority amongst famer and food producers but at the same time this is an area where women are severely discriminated against.

Source: Longwe, S. H. 2002. Spectacles for Seeing Gender in Project Evaluation. Paper presented at the APC WNSP Africa Gender Evaluation Workshop, 19–23 November 2002, Zanzibar, Tanzania.

However, Longwe stresses that having the right spectacles is not enough. An added lens for analysing a gender issue is required. Such a lens provides us the ability to examine a gender issue in terms of its underlying causes, hence enabling the fine-tuning of a policy, programme or project in tackling a gender issue at its root cause, rather than just addressing effects at the surface (see Figure 2).

Figure 2: Underlying Causes of a Gender Issue
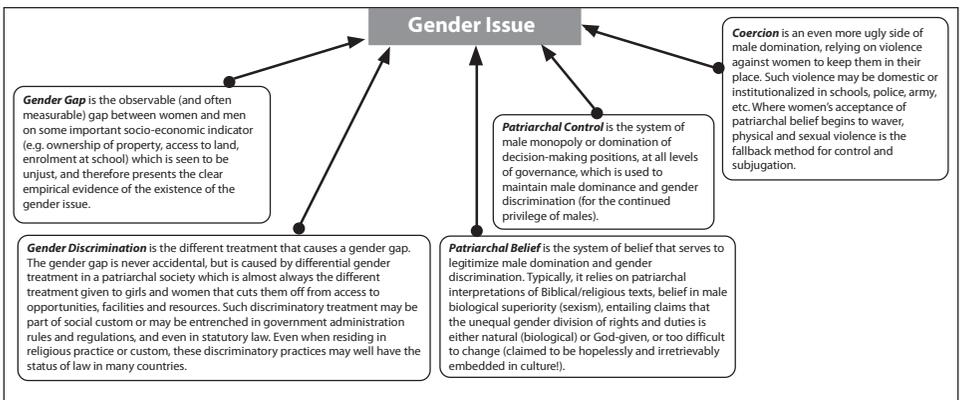
Source: Longwe, S. H. 2002. Spectacles for Seeing Gender in Project Evaluation. Paper presented at the APC WNSP Africa Gender Evaluation Workshop, 19–23 November 2002, Zanzibar, Tanzania.

Innovative interventions underway in different countries offer a micro-level view of processes of change and prospects for transforming gender inequities into equitable opportunities and outcomes. These are referred to as gender transformative strategies (see Box 11).

Box 11: Gender Transformative Strategies

Gender transformative strategies are about change and transformation of existing inequalities as opposed to gender-neutral or gender-specific policies that target one gender over another to achieve gender goals, and in doing so, leave the gender division of labour and resources intact.

For example, providing women with the enabling resources which will allow them to take greater control of ICTs; to determine what kinds of ICTs they would need; and to devise the policies to help them reach their goals. The development and implementation of ICT policies could be evaluated by asking the following questions:

▶   Do these policies address gender needs?

▶   Will they lead to the transformation of gender relations and gender roles?

If women are to benefit from ICT interventions, mainstreaming the perspectives and concerns of women is one of the important tasks to be undertaken. Two types of strategies are offered to support this task: *top-down* and *bottom-up*.

Top-down strategies aim to change the ICT institutions and agencies to promote women's equality and empowerment in ICTs. Examples of top-down strategies might include:

▶   Using political pressure at international conferences and consultations to demonstrate the importance of gender-sound policies and interventions;

▶   Serving as a 'watchdog' that monitors ICT impacts on women;

▶   Conducting researches and gathering data on gender concerns as central to ICTs for more effective lobby work;

▶   Promoting the use of gender analysis tools such as frameworks, guidelines, checklists and rosters of women, and ICT and gender experts; and

▶   Working within structures to effect change through gender training, financial allocations, staff appointments, and obtaining internal legal mandates.

Bottom-up strategies are aimed directly at women, supporting their entry into the mainstream of ICT. They include:

▶   Removing legal or social barriers that limit women's access to ICTs;

▶   Enabling women to take initiatives in their involvement in ICT planning and policies; and

▶   Extending financial or technical assistance to women to facilitate access to and control of ICTs by providing credit, training and education.

Source: http://www.apcwomen.org/gem/en/understanding_gem/genderanalysis.htm#jump63

Gender-aware[45] interventions still remain an important source of learning for wider social policy, as they aim to challenge the cultural and social norms that underpin persistent denials of women's rights to ICTs, and belie many of the assumptions upon which efficiency-oriented policies are based.

---

[45] Kabeer defines gender-aware policies as those "based on the recognition that development actors are women as well as men, that women and men are constrained in different and often unequal ways, as potential participants and beneficiaries in the development process and that they may consequently have differing, and sometimes conflicting needs, interests and priorities" (1999: p.39).

LESSONS YET UNLEARNT

In most developing countries, women are less likely than men to use the Internet because they do not have access, they do not have skills, they do not have disposable income or they do not have time and/or interest. Therefore the notion those ICTs can be a vehicle for making government services and public participation more widespread is flawed by the simple fact that men and women have different user patterns. From this perspective, the move towards digitization of government services may be further marginalizing women.

- Dr Eva Rathgeber, Carleton University[46]

Issues and Potential Solutions

There are commendable efforts at the grass roots to provide equitable access to ICT for women and girls and minority groups. The term 'minority' is used here to represent any group which lacks socio-economic and political voice. Used in this way, the word 'minority' then provides us the full extent of a contradiction when it is realized how great in number women and girls are as the poor and the marginalized, yet how silenced and invisible they seem to be. Women and girls are also largely representative of the rural population where infrastructure for ICT is non-existent for most developing countries.

Some of the programmes designed for women and girls go a step further in the provision of ICT literacy and actual training, and not just access. However, looking at the current advocacies around the globe on gender in the area of ICT, one will find that the call for equality and equity is persistent and, sadly, consistently ignored to a large extent. Current advocacies apply to basic issues of access, affordability, training, employment, education, health and so on, in addition to more complex issues of information security and freedom of communication, Internet governance, intellectual property rights[47] and free and open source software (Kuga Thas, 2003).

Greater attention needs to be paid to micro-level successes and a higher consciousness needs to be cultivated when trying to address gender issues in ICT. This section highlights persistent issues in gender and ICT[48] and some illustrative examples on potential solutions.

Access and Control

Women's access to new ICTs is most times mistakenly understood to be synonymous with making available an Internet-abled computer for women to use. This is far from true. There are numerous and significant factors that determine whether women can access ICTs - from education, literacy, language and skills to financial resources, cost implications, time constraints, location and socio-cultural norms. Women's access to ICTs and control over them is not equal to men's. When considering the way in which ICTs are allocated between women and men (the 'gendered' allocation of ICTs), it is important to look at the difference between access and control. 'Access' is the opportunity to make use of ICTs meaning not only technology but also information and knowledge, while control refers to the power to decide how ICTs are used, and who has access to them. Women's access and control (or lack thereof) is dependent on factors such as age, class, gender, geographic location, health, illiteracy, and other socially and economically-determined categories.

---

[46] Rathgeber, E., 'Engendering E-Government in Development Countries', 8 May 2006.
http://www.carleton.ca/womensstudies/index.html
[47] Women's traditional knowledge and bio-privacy issues lie on the continuum that concerns intellectual property, corporate monopolies and the ethics of the public domain. Knowledge-sharing needs to be promoted with newer concepts like General Public Licensing (GPL) which was designed by the Free Software Foundation, a non-profit institution that was established to promote the publication of free software. GPL is used by programmers who want to give others the right to copy and modify the source code of their programs. The concept also extends to written documents. Another non-profit called Creative Commons offers an alternative to full copyright, designed to encourage creativity and adaptation (visit http://www.gnu.org/copyleft/gpl.html and http://creativecommons.org/about/ for more information).
[48] As articulated by the APC WNSP in the development of their 'Mind the E-Gap' framework to help ICT practitioners in understanding and applying a gender analysis to their work.

Some experiences on the ground do point to the fact that availability of computers alone does not ensure equitable access to both women and men. For example, the National Institute of Information Technology's *Hole in the Wall* Project in India installed a computer screen and keypad with an active Internet connection into the wall of a slum or school in three different pilot sites. Through a hidden camera, women monitored who accessed these *Holes in the Wall* and how. Use was evenly divided between girls and boys at the rural pilot site, but was higher among boys than girls in the urban sites, allegedly because when boys pushed girls aside, girls would withdraw, fearful of the physical threats that might arise from challenging the boys (Mitra Sr., 2001). Particularly, where computer labs are just placed in schools without further monitoring as to how these are accessed by girls and boys, the tendency is for boys to rush for the computers, while girls do not. In Hong Kong SAR, while a growing number of households have computers, it was found that many women are only allowed to touch the computer to clean it.[49]

For women, affordability of the technology is a key factor to their access. Innovative experimental measures such as those in India that seek to provide ICT access even though there are no telephones or electricity in the area is worthy of mention. A project has started in Andhra Pradesh, India, using packet switching to route Internet data and telephone calls through the spare capacity of railroad cables to areas presently without telephone service. If successful, it would provide connectivity at rates below those of any other option.[50]

For areas where there is no electricity, the Pondicherry project in India combines power supply from the grid with battery backup and solar power. Pilot projects have been put in place in Mongolia as well as in Chennai, India, and elsewhere using wireless radio modems for transmission of Internet data to remote, sparsely populated areas where there are no landline telephones.[51] Rapid progress is also being made towards the availability of inexpensive Internet access devices that could be installed for public access. The Simputer, being developed for the rural poor by Ashok Jhunjhumwala and Vijay Chandru at the Indian Institute of Science, has attracted a great deal of interest and support. With a market cost of about US$ 200, the battery-run pocket computer/Internet access device uses free software and features a smart card that could provide a whole village with separate personal accounts on one machine.[52] The developers feel that the availability of the device will spur content development in local languages, a necessity if more women are to be able to access information that addresses their needs.

Outside of urban areas, women in developing countries are far less likely to come into contact with ICTs and tend not to perceive a need for them. In some places, this is due to a lack of telephones, electricity and infrastructure. In others, it is because women often control indigenous, traditional and popular forms of media which, many caution, should not be ignored in the rush to embrace computer-facilitated communication. As one woman explains, "for generations, rural women have been active participants in social communication networks using indigenous communication methods for information exchange and knowledge sharing. This rich cultural and creative environment should...be strengthened. The preservation of traditional forms of communication and new IT are not mutually exclusive."[53] ICTs therefore do not have to be just computers and the Internet. Radio, television, embedded chips, and links between old and new technologies or the combined usage of these are important tools in reaching poor people in developing countries. The Kothmale FM radio station in Sri Lanka[54] combines traditional community radio serving a poor and isolated rural area of Sri Lanka with Internet and computer technology.

The radio station provides an interface between the Internet and the rural community. On the programme *Radio Browse the Internet* listeners send in queries, a search is done for them, and the results are broadcast in the local language. The station sets up two free community Internet access points that the community also uses to produce radio programmes. Kothmale has developed a database, available at the access

[49] Anecdotal information from Chan Yu, in 2003, who was then Executive Director of the Hong Kong Federation of Women's Centres.

[50] http://www.cseindia.org/html/dte/dte20010215/dteanaly.htm

[51] http://www.panasia.org.sg/rresult/40439.htm; http://xlweb.com/food/wireless/final.htm

[52] 'Simputer to make browsing easy for rural folk', *The Times of India*, 8 August 2000. http://www.simputer.org; http://timesofindia.indiatimes.com/articleshow/1691262792.cms

[53] Quote is from the Virtual Working Group on Women and Media with a special focus on ICTs as they impact women's lives, sponsored by WomenWatch and facilitated by Women Action 2000 during November and December 1999. The Group's goal is to analyse, at a global level, which of the objectives from the Beijing Platform for Action, Section J, have been realized and which still need attention. Access the Group's archives at http://sdnhq.undp.org/ww/women-media

[54] A joint project between UNESCO, the Ministry of Posts, Telecommunications and the Media, the Sri Lanka Broadcasting Corporation, and the Sri Lanka Telecommunications Regulatory Commission.

centres, of frequently requested information of local interest downloaded from the Internet.[55] Local knowledge in applying ICT in development has been quite an untapped potential.

Education, Training and Skill Development

Education, training and skill development are critical to ICT interventions. Illiteracy rates for women in developing countries are far higher than men. Training methods are often *ad hoc*, alienating and not customized to women's needs. Learning practices for women should be extended to women and girls, made gender-sensitive (making training women-specific, ensuring ongoing user support, and mentoring in the communities where women live) and deepened (for women as users, technicians, policy- and change-makers).

Training in the use of ICTs by knowledgeable trainers is a serious shortcoming. For the most part, women have little or no previous experience with technology, and many feel confused when confronted with the sudden appearance of computers and the Internet. Merely getting access to the hardware or connecting groups to the Internet without an adequate introduction to what it is and how it works – and in the absence of policies or guidance about usage, etiquette or communication techniques – is proving insufficient to promote intelligent usage (Fontaine, 2000). Who assists with the capacity strengthening also can be an issue, especially if all the technical 'experts' are males, and many are young. As one woman explained, "we find that mainly women over 40, who are just learning to use their computers, feel really uneasy when a young boy is the one in charge of hands-on-training."[56]

WENT that began in 1999 as an Asia-Pacific regional training workshop, with strong support from UNESCAP, is one model that integrated a gender perspective into their training approach. WENT aims to build the capacities of women in the field of ICT and strengthen women's organizations and networks in Asia and the Pacific. The training was purposefully designed to have women ICT practitioners lead in the training as well as the development of the training modules. Jointly managed by APC WNSP and APWINC on behalf of AWORC, WENT is now being replicated at sub-regional and national levels as well as in other regions of the world.[57]

In India, Datamation Foundation works with local non-profit partners including Nari Raksha Samiti (NRS), Prayas, Action India, Nanhi Kali, Katha, Arise and Shine Church International, Deepalaya, Udayan, Help Care Society, Azim Premji Foundation, and the American India Foundation, who offer free or low-cost six to eight month IT training courses to marginalized groups of women, and recruits successful trainees for full-time jobs within the company (Sarkar, 2003). Since the overall goal of the programme is women's empowerment and personal development, Datamation Foundation also provides life skills training in topics such as healthcare, communication skills, professionalism and work ethics, and knowledge of worker's and women's rights. An ongoing mentoring and training system has also been established to ensure the necessary support towards new employees. However, of Datamation's nearly 2,000 employees, only 35 percent are women, but 85 percent of these women are from disadvantaged backgrounds.

In education, at the primary and secondary levels, radio and television are an increasingly important means of reaching the rural poor. In Thailand, for example, educational radio has been utilized to teach mathematics to school children, and for teacher training and other curricula[58] (Kenny, 2001). In such programmes, however, it is important to see if existing patterns of gendered division of labour obstructs access to learning for women and girls. Radio educational programmes that are conducted in a series with little repetition tends to favour learning for men and boys, as women and girls often cannot follow a radio programme diligently enough due to their multiple gender roles and responsibilities of reproductive, productive and community. The timing of when these programmes are held should also be a consideration.

---

[55] 'Kothmale Community Radio', in Dagron, *Making Waves*, pp. 127-132. Similar community radio connections to the Internet are found in Bolivia. UNDP, *Human Development Report 1999*, p.64; Gallagher, L. and Benamrane, D. 'Rural Access by Radio and Internet Helps Close the Digital Divide' - http://www.isoc.org/oti/articles/0401/gallagher.html

[56] Quote is from the Virtual Working Group on Women and Media with a special focus on ICTs as they impact women's lives-sponsored by WomenWatch and facilitated by Women Action 2000 during November and December 1999.

[57] For more information see section on 'Enabling Women's Social Empowerment' above.

[58] The example of the use of radio comes from Nwaerondu, N. G. and Thompson, G. 1987. 'The Use of Educational Radio in Developing Countries: Lessons from the Past'. *Journal of Distance Education*, Vol. 2(2): pp. 43-54.

Industry and Labour

In the ICT industry, labour is highly sex-segregated. Women are found in disproportionately high numbers in the lowest paid and least secure jobs. The gender dimension of ICT also affects telework, flexi-time, and work from home arrangements where women have few rights, meagre pay, and no health, social or job securities. A woman's wage labour outside (or inside) the home as a result of the new technologies does not entail a change in the family division of labour. Men still get out of doing the housework, and women find themselves with dual or triple burdens. Poor working conditions, long hours and monotonous work routines associated with ICTs are often injurious to women's health.

While many countries in Asia scramble for strategies to attract international telework that is currently globally distributed, women too are looking towards these new opportunities to work from the home, in trying to balance their multiple gender roles and responsibilities at the household, in work, and in the larger society. Governments are seriously looking at national policies to enable teleworking on a larger scale.[59] However, such policies must not only consider the practical gender needs of women, but their strategic gender interests. The 'working conditions' at the home front needs to be well-defined and be made more conducive for women in terms of protecting their rights as workers (including their right to leisure), and the implementation of such policies should not further perpetuate the general misconception that 'a woman's place is in the home'. Nor should such policies contribute further to limiting the mobility of women outside of the home or reduce her independence and self-determination within the home.[60]

While the system provides women with the possibility of managing their homes and earning a living, there is a danger that their contributions to society will remain invisible. It would not change their existing gender inequity in the home or the prevailing stereotypes that domestic work is essentially women's work. e-Homemakers in Malaysia[61] is one group whose work since 1998 is aimed at supporting women who choose or want to work from home to balance their gender roles and responsibilities, and is currently working in tandem with a similar policy thrust and emphasis of Malaysia's Ministry of Women and Family Development.[62] For teleworking to help in achieving gender equality in the family, however, both women and men must challenge gender roles and stereotypes and start with the premise of equality between wives and husbands in all aspects of family life – in decision-making, in household work and in family responsibilities. If this is not embedded alongside the promotion of teleworking, all teleworking for women can do at best is to provide an opportunity for women to balance their gender-based roles and responsibilities better, and at worst, be used to justify women's multiple burdens of having both a family and career life (APC WNSP, 2003).

Content Development and Language

Online content development and language used facilitate knowledge sharing. However, the content that predominates on the Internet and in the new media is northern-ruled, male-dominated, anglophone, and culturally biased. This affects the expansibility and proliferation of knowledge since access and use is limited. Hans-Dieter Evers in his paper on 'Transition towards a Knowledge Society: Malaysia and Indonesia Compared' (2002) is convinced that "the treasure trove of knowledge is jealously safeguarded by the powerful industrial nations," and as a result, today, mega companies who control budgets exceeding those of many governments[63] "increasingly determine what knowledge is created and who will have access to it." Representation of women's viewpoints, knowledge and interests remain inadequate. The

---

[59] Due to the prevailing notions that home-based work is essentially women's work, it is likely that companies adopting telework systems would prefer women.

[60] This may be particularly true for cases of abuse within the home and violence against women issues.

[61] In 2003, e-Homemakers conducted an evaluation plan called 'A Study on How Gender Dynamics Affect Teleworkers' Performance in Malaysia' to test APC WNSP's Gender Evaluation Methodology (GEM) tool. The main objective of the evaluation was to explore how women's family lives and home situations affect teleworking and their job performance. GEM is a guide to integrate a gender analysis into evaluations of initiatives that use ICTs for social change. The guide is available online at http://www.apcwomen.org/gem

[62] Given that women in Asia continue to fulfil traditional gender roles, promoting teleworking for women should be done with full recognition that it will not fully challenge gender issues and concerns in relation to work and family. Home-based work can clearly address practical gender needs without necessarily challenging socially (and internally) accepted roles of women and men in the home. Home-based work can become a compromise for women so they can continue to fulfil their roles as mothers and homemakers. The long-term effects in terms of gender relations within the family will not be truly evident until further evaluation and monitoring is done. What is necessary, however, is to make sure that indicators and benchmarks in terms of changes in gender relations as a result of teleworking are developed and evaluation of teleworking from a gender perspective is continuous (APC WNSP, 2003).

[63] Among the biggest 100 economic units (in the year 2000) are 49 countries and 51 corporations (Spiegel, D. 2001 in Evers, 2002: p.14). Government ministries, let alone universities and research institutes are dwarfed by the research and development divisions of these large conglomerates (Evers, 2002: p.14).

use of ICTs for pornography and sexual exploitation is another critical dimension of content that can provoke controversial debates around issues of Internet censorship. Language barriers to information access would require the development of more sophisticated applications such as multilingual tools and databases, interfaces for non-Latin alphabets, graphic interfaces for illiterate women and automatic translation software.

The approach of the Kothmale FM radio station in Sri Lanka[64] has proven to be capable of overcoming linguistic barriers in using the Internet by non-English speakers (see earlier section on 'Access and Control'). The radio station adds value to the information by interpreting it into a local context, by broadcasting it in vernacular languages, and by providing a platform for feedback through local discussion and networks of local correspondents. While translation software, even to/from relatively obscure languages, is becoming more easily available, original local language content will certainly go a much longer way to making ICTs relevant to local communities everywhere.

Power and Decision-making

In *Nattering on the Net* (1996), Dale Spender notes that women's marginalization from the new communication technologies is "less to do with women and more to do with computers" arguing the computers are the site of wealth, power, and influence. She warns that women cannot afford "to permit white male dominance of these technologies because a very distorted view of the world is created when only one social group, with one set of experiences pronounces on how it will be for all."[65] ICTs are important tools: for power and control, for making money, for effecting change, and for women's equality and empowerment. Involvement in the power and decision-making processes of ICT is exclusionary – mostly representing white, wealthy, influential, professional, and English/American-speaking males.[66] Whether at the global or national levels, women are under-represented in all ICT decision-making structures including policy and regulatory institutions, ministries responsible for ICT, boards and senior management of private ICT companies, etc. Deregulation and privatization of the telecommunications industry is making decision-making in this sector less accountable to citizens and local communities, further compounding decision-making and control of resources for women.

Gaining access and utilization of ICTs for women serves "to conscientize women in the possibility of changing how the world is shaped and how the world shapes women." In particular, ICTs have a major role in reducing the vulnerability of the poor – especially to natural disasters and powerlessness. One of the reasons for this is the part that ICTs can play in amplifying the voices of the poor. ICTs bridge the distance between remote communities and service providers – markets, government departments, and aid agencies. They can allow the opinions of the poor and the needs of the poor to be heard.

For example, in India, the women's rights NGO Sakashi had faced difficulties in lobbying for sexual harassment legislation. With help from international women's networks provided over the Internet, Sakashi was able to receive advice and technical assistance on legal issues surrounding sexual harassment (Kenny, 2001). As a result, the group succeeded in convincing the Supreme Court to establish sexual harassment guidelines in the workplace and brought the issue within the purview of human rights violations. Another critical way in which poor women can profit greatly from the application of ICTs is having access to government information online, such as land registration through the Computer-aided Administration of Registration Department functioning in Andhra Pradesh, India since 1998.

In India, Delhi-based NRS, founded 50 years ago to help women in distress, focuses on promoting the safety and security of women, family welfare, employment, health, and training in job-oriented professions. Under the leadership of Vandana Sharma, NRS established a small computer education centre and volunteers have trained 250 young women, many of them with a history of oppression, in basic computer literacy as well as office software such as Excel, Word, and Power Point. This IT training programme is part of the strategy to enable women who are dowry victims and have a history of harassment and exploitation, to find employment and economic independence. The NRS computer centres not only provide job training, but have also allowed NRS to establish an online complaint system

---

[64] For more information, see http://www.kothmale.net

[65] http://www.apcwomen.org/resources/research/analytical-framework.html

[66] 'Louder Voices: Strengthening Developing Country Participation in International ICT Decision-Making' (2002), a study by the Commonwealth Telecommunications Organization and Panos London gives a good overview of which institutions are key players in ICT decision-making, especially differentiating those who make decisions on hard policy issues with those who make decisions on soft policy issues.

for solving dowry and family dispute issues. Women can confidentially lodge complaints through the system and receive assistance from NRS, the police and government authorities (Sarkar, 2003).

Other case studies show how groups use ICTs to uphold women's rights. For example, Datamation Foundation has initiated a campaign against members of the medical community indulging in selective sex determination tests in India as well as against the selective abortion of female foetuses in contravention of the law and natural justice. *Save the Girl Child Campaign* uses ICTs innovatively and has a dedicated website for the campaign (http://www.indiafemalefoeticide.org). The website not only covers the regulatory aspects, but also includes a complaint lodging process. This process protects the identity of the complainant as well as provides an effective vehicle for the booking of doctors, maternity homes, ultrasound and radiology clinics.

The complaints are retrieved into a database format at Datamation, from where they are handed over to the competent authority for further action at their end. The responses from the authorities are also sent back to Datamation to enable updating of the database within a month's time, failing which, an automatic reminder for the competent authority gets published. Plans to sensitize people from rural areas on sex-selective abortions include the use of Internet radio and Internet video. Staff and volunteers of Datamation Foundation are also taking the Campaign to rural areas using a portable computer mart called a 'computer thela'. The equipment is taken to the panchayat level for the dissemination of information about the site. More than 750 cases of selective sex-determination tests and consequent illegal abortion of the female foetuses have been registered at the site. The site has been linked to other women's rights websites across the country such as Nanhi Kali, NRS, Nari Dakshata Samiti etc. to draw enhanced traffic as well as to enable tracking of individual complaints effectively.

Freedom of Expression, Privacy and Security

Privacy, security and Internet rights are other important thematic areas for women. They include having secure online spaces where women feel safe from harassment, enjoy freedom of expression, and have privacy of communication and protection from 'electronic snooping'. They also include the passage of ICT legislation that can threaten human rights. ICTs facilitate the development and progression of democracy, and when used effectively, can enable women's political participation, irrespective of their literacy levels, on a much wider scale. However, before the potential of ICTs to do this can be fully achieved, there are already efforts to curb the use of ICTs in this respect.

Trafficking, Pornography and Censorship

The large and growing presence of pornography on the Internet has been used to argue for the need to censor online content by technologically filtering these and tracking down creators and clients of pornographic websites. However, technology that filters content does this on a blanket scale, and includes indiscriminately blocking access to websites that deal with educational and rights-based content on sex, sexuality and other related issues. With the absence of any viable alternatives to control the use of the Internet for trafficking and pornography, many women's organizations and people in general, tend to demand that the State provide protection and to curtail such use without fully realizing the socio-political leverage that the common person can wield through the Internet.[67]

However, the response to date, gives governments full reign in over-developing legislation and regulations, much of which is open to wide interpretation in regard to what the State might consider 'harmful' or 'illegal' (Ramilo, 2002). Depending on extent of political freedoms in a country context, these new legislations and regulations can have serious implications for human rights defenders.

---

[67] The Internet was successfully used as a means to form a coalition of activists when thousands of Internet users protested Yahoo's decision to sell pornography. In December 2000, Yahoo created an online store devoted to selling pornographic videos and DVDs. Just a few months later, after receiving over 100,000 emails from Internet users, Yahoo decided to remove the portion of its website that sold pornography and to stop accepting advertisements from pornographic websites. In May 2001, Yahoo decided to make it more difficult to find sexually explicit chat rooms and online clubs (Gurumurthy, 2004: p.27).

What do Ground-up Experiences Tell Us?

Addressing gender equality means challenging existing social institutions and power dynamics, and therefore explicitly demands the conscious identification and implementation of affirmative measures for women. When men start asking 'why only women?' the answer needs to be rooted in the effects of historical and continued discriminations (and its variations) on women and girls. If women are to benefit from ICT interventions, integrating the perspectives and concerns of women is one of the important tasks to be undertaken. Two types of strategies are offered to support this task: top-down and bottom-up.[68]

Social change as illustrated by APC WNSP below (Figure 3), includes critical reflection, implying the self and self-transformation. The element of self/self-transformation is a critical element as it relates to the personal self (as individual) and the human self (as social construct), as well as the stakeholders/audience of a particular ICT intervention. The changes that happen to the 'self' and how the 'self' affects other components are central to the gender analysis of ICT interventions. Like gender, the 'self' has different roles and responsibilities that can be evaluated and seen in different ways.

Figure 3: Learning for Social Change
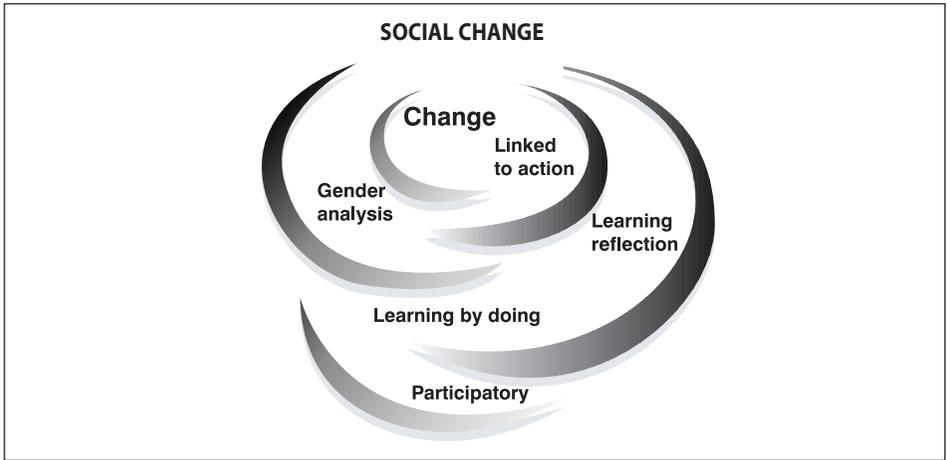
Source: APC WNSP, Learning for Change http://www.apcwomen.org/gem/en/understanding_gem/learning.htm

In making an appraisal of a project plan, an evaluator can often see the phenomenon of 'fade-away' in the project's attention to gender issues. In other words, gender issues appear quite prominent in the situation analysis, but gradually fade away as the text progress towards goals, intervention strategies and objectives. It is quite common that the situation analysis boldly admits gender issues at the level of gender discrimination and women's lack of participation in decision-making. However, as the plan progresses towards describing the interventions, the vocabulary fades away towards matters of welfare and access to factors of production (Longwe, 2002). The point where the plan fades away is a crucial point, not only for project reformulation, but for further analysis as to what it really takes to address gender and ICT issues. The story of SITA-Mitra Mandal illustrates this fade-away phenomenon and other points described above (see Box 12).

Ground-up experiences of the application of ICT in development also tell us that the likely impact of project intervention on women and men is often assumed to be equally the same for both. However, it is clearly not. There is a need to not only be people-focused in the design of programmes and projects utilizing ICT in development interventions, but to incorporate a gender perspective within that framework, and place women's empowerment in the centre of that. Designing development strategies on technology considerations alone does not work.

The achievement of gender equality remains a challenge as it is strongly linked to human rights, in particular women's rights and empowerment. Even where there are constitutional guarantees for women's rights, these more often than not are insufficient to ensure gender equality, particularly when women have been denied their rights on the basis of culture and tradition, and hence, within these contexts, the

---

[68] See Box 11.

Box 12: The Story of SITA-Mitra Mandal

The Delhi-based Studies in Information Technology Applications (SITA) project was launched in 1998 by Dr K. Sane, with funding from World Banks's *info*Dev, to provide computer skills training to poor and disadvantaged women. SITA's aim was to empower low-income women from rural, suburban and urban areas, through computer training, customized to meet the demands of both the public and private sectors. Women from two geographical regions, the Union Territory of Delhi and the adjacent state of Haryana, were targeted by this project. The SITA training package enabled intensive hands-on computer training with multilingual, audio-visual and interactive multimedia modules for self-learning. Wherever possible, trainees were also attached to a potential employer. A majority of the trainees involved in the project achieved commendable proficiency in basic computer skills.

SITA experienced a financial crisis in the year 2001, after *info*Dev support ended. At this point, Khalsa College (Delhi University) stepped in to provide the much-needed infrastructural support and facilitated SITA's interaction with the UN Asia-Pacific Centre for Technology Transfer (APCTT) based in Delhi. APCTT played an important role in the identification of 'internship' as an intermediate step in the process of securing jobs for SITA's women. The SITA women also set up a cooperative called 'Mitra Mandal' to take up job assignments. Mitra Mandal is, however, finding it difficult to perform as envisioned. Mukul Ahmad of APCTT says, "the most important thing that Mitra Mandal needs is marketing. Everyone in Mitra Mandal was trained in IT, but there was no component developed to market the training. With the lack of confidence that comes from social and economic deprivation, marketing became a problem for those trained. Also, women's lack of proficiency in the English language, no public relations workers from among them and their own socio-economic situations have come in the way of anything permanent and meaningful for them."

For the SITA-Mitra Mandal endeavour, the poor response of the labour market to the trainees has been a disappointing experience. The inability of a majority of women to find jobs shows that good education by itself does not serve the needs of the individuals from the disadvantaged sector, since only a handful of the 500 women trained by SITA have jobs. Another unanticipated difficulty was the inability of the trainees to find stable employment. That is, they got jobs but failed to keep them for various reasons. Notable amongst them being poor communication skills particularly in English given that most of the trainees had studied in government-run Hindi-medium schools; low confidence levels caused by a tradition that regarded a girl as a liability; lack of family support given that low-income families are not able to afford domestic help, baby sitters, etc. The women that SITA caters to, have to do work at home even if they work outside with very little support from the men in their households. This proved wrong the premise that an effective IT training for jobs was enough to enable individuals to find jobs and build their own future. SITA has demonstrated that this is inapplicable for most persons from a disadvantaged background, particularly women. Furthermore, the SITA experience has shown that giving these women IT training alone may do more harm than good as it breeds frustration through unfulfilled expectations that end up by adding to the alienation and disillusionment.

The Datamation Foundation case in India has proved that economically disadvantaged women do certainly possess the capabilities to qualify on the job. However, training initiatives *per se*, not linked to the employment market, come with stumbling blocks. If the benefits of IT have to trickle down to poor women, the larger institutional framework of the IT industry has to make spaces for the poor in general, and poor women in particular. The story of SITA elucidates the need for a more proactive policy in public and private institutions towards induction and mentoring of socially disadvantaged women.

Source: Sarkar, R. 2003. Building Information Societies: Grappling with Gendered Fault-Lines.

denial of women's rights have traditionally not been seen as discrimination. It is therefore particularly important for the promotion and protection of women's rights, to establish jurisprudence that can set universal norms and standards, and this is where the strength of the CEDAW Convention comes in. The strength of the CEDAW Convention rests on the international consensus on its mandate of equality and its principles, given that there are 185 ratifications/accessions as at end of October 2006. Such a mandate is a strong counter to claims that equality between women and men should be made relative to culture and tradition. As Rebecca Cook puts it, non-discrimination against women is now a principle of international customary law.

IMPLICATIONS OF INTEGRATING A GENDER PERSPECTIVE AT NATIONAL LEVEL

I think one of the biggest challenges for many young women is grappling with the language of the ICT for development policy processes. Many times, policy statements are written (and discussions conducted) using specialized terms, which most people would only learn in a university political science course. Given that young women are still underrepresented in universities in many countries, there are simply fewer young women with the vocabulary to feel comfortable and confident in these dialogues.

- Terri Willard, participant in 'Talk to Her: A Dialogue to Action among Young Women in ICT'

Implications for Policy, Programme and Project – Design, Implementation, Evaluation and Monitoring

'Mainstreaming gender' is both a technical and a political process which requires transformations in organizational cultures and perspectives, as well as in the goals, structures and resource allocations of governments and NGOs. Mainstreaming incorporates specific gender concerns within institutions, in agenda-setting, policy-making, planning, implementation, monitoring and evaluation. Elements in the mainstreaming task include staffing, budgeting, training programmes, policy procedures and guidelines. Experience suggests that increased response to gender issues is linked to the level of 'fit' of gender issues with the mandate and procedures of the government, and the capacity of staff members who work on gender concerns to translate their knowledge into agency-specific procedures and programmes.[69]

Recognizing the needs and perspectives of women in ICT policy can help ensure the active participation of women in policy discussions and lead to the increased contribution of ICT to socio-economic development, and in particular poverty reduction. When women have access to ICT, they can fully engage as decision makers in a variety of productive tasks, including entrepreneurship and management of SMEs.[70] Thus, development goals and gender goals can advance at the same time.

According to Sonia Jorge, "there need not be any inconsistency, however, between gender-specific objectives and development objectives; on the contrary, it is becoming increasingly apparent that one of the most effective means to provide access to both telephone and advanced ITs to unserved and lower income areas and populations is to encourage the development of micro, small or medium-sized telecommunications businesses owned and managed by women,"[71] as shown by the very tangible example of Grameen Phones in Bangladesh.

Most Grameen-provided phones represented the first telecommunications service in the respective villages. In places where the signal is weak, antennas, which serve as an advertisement of availability of public phone services, are mounted on the women's homes. Despite the imminent arrival of fixed wireless phone service in rural Bangladesh, observers feel that the Grameen village phones will continue to be viable businesses because the fixed wireless will probably target more densely populated areas and because village women have become loyal customers of the women phone operators. Grameen Phones has captured about half of Bangladesh's cellular phone market. It is planning technological upgrades to phone cards, email messaging, fax and web access through the newly established Grameen Communications, an NGO, which plans to launch an Internet service and has started pilot Internet kiosks.

---

[69] http://www.ids.ac.uk/bridge/dgb5.html

[70] Canadian International Development Agency, 'Gender equity, telecommunication development and the ITU', p.3. Document 128-E. ITU World Telecommunication Development Conference (WTDC-98). http://www.itu.int/ITU-D-Gender/Background/WTDC98documents.htm

[71] Jorge, S. N. 'Gender Perspectives in Telecommunications Policy: A Curriculum Proposal'. Report of Working Group I. Third Meeting of the Task Force on Gender Issues, ITU, Geneva, 9-10 October 2000. Document TFGI 3/4 E. http://www.itu.int/ITU-D/gender/projects/GenderCurriculum.pdf

Importance of Substantive Consultation and Facilitation of Women's Understanding of the Policy Process

Poor women in developing countries could improve their lives and the lives of their families with the help of ICT. Both the technological solutions and the successful pilot projects, along with tested finance mechanisms, are already in place. However, neither the technological solutions nor the pilot projects yet have sustainable business models that would allow them to be replicated in other regions. The focus needs to turn from small projects to national programmes, supported by national policy commitments. When these national programmes are put into place, women must ensure that they are part of them, and that governments remember that when they talk about reaching the poor in their countries with ICT, women are the majority of those whom they are talking about (see Figure 4).

Figure 4: Integrating a Gender Perspective in the Making of a Public Policy
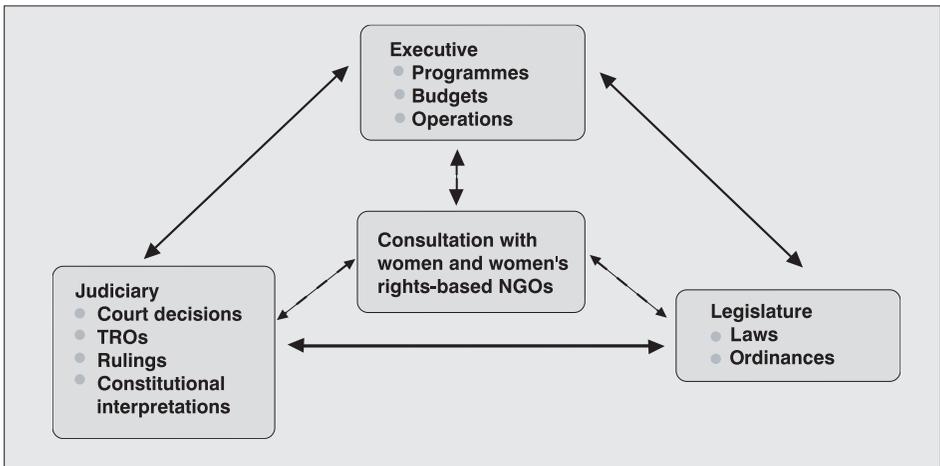
However, it is imperative too that when consulting with women, that not just practical gender needs are expressed and addressed, but also strategic gender interests of women (see section on 'What's the Difference Between Practical Gender Needs and Strategic Gender Interests?'). Consultations with women need to take place not only at the early stages of conceptualization and planning, but also at all stages of monitoring and evaluation. These consultations need to include simplifying development policy processes for women who have never been part of these, to enable their full understanding of the implications of policy development, not just from within the ICT sector, but the social sectors as well.

Louise Chamberlain in her paper on 'Considerations for Gender Advocacy vis-à-vis ICT Policy Strategy' says that a World Bank study,[72] "found that projects with greater focus on poverty reduction were more likely to address gender" (Chamberlain, 2002). However, this e-primer would like to suggest that a greater focus on addressing gender equality and women's rights, will definitely address poverty reduction. Since no such national programme exists that truly addresses gender inequality issues in all of its forms, it is quite premature to say that the development approach that has been traditionally used is the better approach. In fact, Chamberlain to a certain extent supports this in her paper when she said that the study, "found projects with gender components to be more effective overall, also recognizes that such projects may also reflect better identification of the target population, design and implementation" (Chamberlain, 2002). The making of a public policy, in other words, must include women's strategic gender interests at the centre of it if resources are to be well optimized.

ICT policy generally covers three main areas: telecommunications (especially telephone communications), broadcasting (radio and television) and the Internet. It may be national, regional or international. Each level may have its own decision-making bodies, sometimes making different and even contradictory policies. It is essential that gender issues be considered early in the process of the introduction of ICT in developing countries, as ICT is not gender neutral.[73] National level decisions about infrastructure can

---

[72] Louis Chamberlain cited J. Murphy's *Mainstreaming Gender in World Bank Lending* (1997).
[73]An interesting aspect of the communication side of ICT is that it can render gender invisible. Nobody knows who you are unless you choose to reveal these details yourself - what class or race you may come from, what level of education you have, what sex you are, etc. However, the possibility of gender invisibility or anonymity is different from the technology being gender neutral.

impact gender and affect women's opportunities to use new technologies – including decisions about what systems to put in place (at what cost to the consumer?), which suppliers of communications services (will they have universal service obligations?), and where facilities will be located (will they be available in rural areas?) (Hafkin and Taggart, 2001).

Many critics dismiss the issue of gender and ICT in developing countries because of the more pressing needs that women in developing countries have for safe water, adequate food, improved health, better education, owning land, etc. It is crucial to begin thinking outside of the 'either-or' mentality because ICTs are not, in any way, in opposition to fulfilling women's basic needs. On the contrary, ICTs will go a very long way in reducing the stark isolation that women face when these basic needs remain unmet or inadequately addressed.

Importance of Recognizing and Adopting International Norms

The process of integrating gender concerns into national ICT policy development processes can be informed by international consensus documents to ensure cross-border interoperable norms/rules and closer cooperation that can assist governments in meeting their commitments. Examples of internationally agreed consensual documents include the Beijing Platform for Action (1995),[74] the CEDAW Convention (1979), the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and of course, the Universal Declaration of Human Rights (UDHR). The CEDAW Convention, for example, obliges States to undertake a series of measures to end all forms of discrimination against women, including to:

1. Incorporate the principle of equality of women and men in their legal system, abolish all discriminatory laws, and adopt appropriate ones prohibiting discrimination against women;

2. Establish tribunals and other public institutions to ensure the effective protection of women against discrimination; and

3. Ensure elimination of all acts of discrimination against women by persons, organizations or enterprises.

The CEDAW Convention is the only human rights treaty which affirms the reproductive rights of women, and targets culture and tradition as influential forces shaping gender roles and family relations. It affirms women's rights to acquire, change or retain their nationality and the nationality of their children. It is also the only Convention that affirms the principle of substantive equality.[75] The CEDAW Convention promotes the substantive model of equality and consolidates two central approaches to equality. First it stresses the importance of equality of opportunity in terms of women's entitlements on equal terms with men to the resources of a country. This has to be secured by a framework of laws and policies, and supported by institutions and mechanisms for their operation. However, the CEDAW Convention goes beyond this in emphasizing that the measure of a State's action to secure the human rights of women and men needs to ensure equality of results. The indicators of State progress, in the eyes of the CEDAW Convention, lie not just in what the State does, but in what the State achieves in terms of real change for women. Article 2 of the CEDAW Convention enjoins the State to ensure the practical realization of rights. Thus the State is obligated to show results, not just stop at frameworks of equality that are strong on paper. Hence, the CEDAW Convention stresses that equality must inform the practice of institutions.

The UDHR is the main source of law in terms of fundamental and universal rights. At the international level, the UDHR guarantees the freedom of expression of every individual. Article 5 of the UDHR in

---

[74] The Beijing Platform for Action adopted at the Fourth World Conference on Women, at Beijing, on 15 September 1995, was the first international policy framework that talked about gender issues in relation to ICT. The areas of computer technology, satellite and television were explicitly recognized as opportunities for women's participation in communications.

[75] The concept of equality has been problematic because the term equality for women is traditionally understood to mean 'the right to be equal to men'. The basis for this understanding came from the fact that women faced gross inequalities in relation to employment opportunities, wages, access to and enjoyment of health, rights within the family, citizenship, etc. At this level of argument being equal to men is understood to mean having equal rights to that of men. The problem arose because equality is then extended to the understanding that women must be treated exactly like men if they are to gain equality with men. The implication of this is that women must be treated according to male standards. This obscures the ways in which women are different from men. If rules of procedure, expected behaviour, processes by which a task is carried out, institutional arrangements, etc., are the same for women and men, then women will be disadvantaged because of the differences between them. Women will not be able to access opportunities in the same way as men. For more information, see International Women's Rights Action Watch Asia Pacific's website, http://www.iwraw-ap.org/convention/equality.htm

particular, provides for the freedom of individuals to communicate and express over all forms of media (including ICT).

Conventions and Declarations of the International Labour Organization (ILO) can also be particularly critical to the sustainability of women's livelihoods. At the international level, the ILO sets standards and provides the basis for justice in the area of employment. The conventions that refer to issues of gender[76] are:

▶ Declaration on Equality of Opportunity and Treatment for Women Workers (1975). The Declaration stresses that "…all forms of discrimination on the grounds of sex which deny or restrict equality of opportunity and treatment are unacceptable and must be eliminated…"

▶ Resolution on Equal Opportunities and Equal Treatment for Women and Men in Employment (1985). The Resolution discusses the need for better conditions of employment, work and life of women.

▶ Plan of Action on Equality of Opportunity and Treatment of Women and Men in Employment (1987) which is directed towards ILO policies and strategies. The main objective is to ensure gender mainstreaming within the institution.

▶ Resolution concerning ILO Action for Women Workers (1991) which reaffirms the need for joint efforts between government, employers and workers to implement the principle of equality.

▶ Equal Remuneration Convention 1951.

▶ Discrimination (Employment and Occupation) Convention 1958.

▶ Workers with Family Responsibilities Convention 1981.

▶ Part-Time Work Convention 1994.

▶ Home Work Convention 1996.

It is important to note though that all of these conventions and resolutions need to be understood within the framework and interpretation of women's rights, women's empowerment, non-discrimination and substantive equality, as primarily offered by the CEDAW Convention and the Beijing Platform for Action.

The chart in Figure 5 draws preliminary reference to international law and perspectives in gender policy. Stage 1 emphasizes the need for countries to work with universal/international norms and practices, and at the same time develop the engendered policy approach at the national level. Also at the initial stages, some government/policy maker sensitization to the issues will be important. There should be a cross border recognition and understanding of the issues and networking of agencies. Subsequently, the approach requires the involvement of stakeholders and women's groups at a very initial stage to inculcate and develop a deep and responsive consultative process. A central group will assist to identify the resources, make connections and identify current issues. In addition, a national agency will assist to champion the cause of women, and provide leadership. Stage 2 is where full recognition is given to the need for political, social and economic empowerment, and could be included into the mandate/goal of the national champion. In Stage 3, the approach stresses the importance of inter-agency coordination.
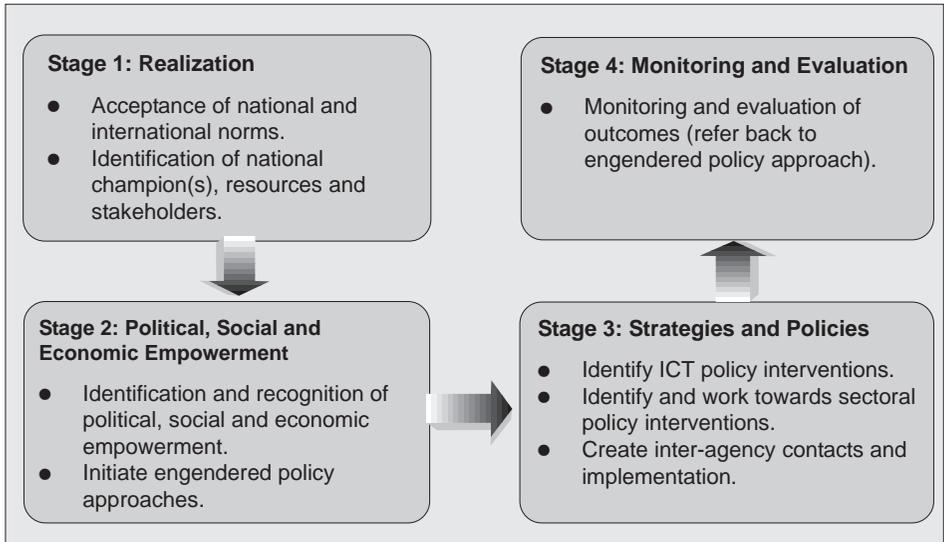
Within a government perspective, agencies and ministries are tasked with their own priorities and work. This fact may put up communication barriers and/or challenges between organizations. Thus the idea here is that the inter-agency contacts, and working groups must be formed within governments and ministries. The reality is that an engendered policy must have the political clout at the broad inter-agency cooperation and at the highest levels of government, to reach out beyond even the scope and mandate of the ICT regulator even with the mandate of convergence.[77] The scope of gender and policy must

---

[76] For more information, see ILO website, http://www.ilo.org, and the Convention on the Rights of the Child, http://www.unicef.org/crc/crc_htm, especially articles 2, 18, 19 and 34. The human rights of children and the standards to which all governments must aspire in realizing these rights for all children, are most concisely and fully articulated in one international human rights treaty: the Convention on the Rights of the Child. By ratifying this instrument, national governments have committed themselves to protecting and ensuring children's rights and they have agreed to hold themselves accountable for this commitment before the international community.

[77] ICT-related policy refers to access, e-signature laws, universal access, e-commerce, convergence legislation, content laws, etc. The kinds of issues attempted and addressed by a typical 'convergence' regulator. Sectoral policy involves education/training, statistics, health, human resources (technical studies, wage disparities, discrimination, etc.) and other areas that have their own national working groups, policies and outputs and will affect the overall design of the engendered policy approach.

reach out to civil society, across ministries (horizontally) such as the Ministry of Family Affairs, and vertically, to higher levels of government, such as parliamentarians, and at the ground level – the most pragmatic implementers – authorities, police, etc.

Figure 5: Gender in the Wider Policy Process

Stage 1: Realization
- Acceptance of national and international norms.
- Identification of national champion(s), resources and stakeholders.

Stage 4: Monitoring and Evaluation
- Monitoring and evaluation of outcomes (refer back to engendered policy approach).

Stage 2: Political, Social and Economic Empowerment
- Identification and recognition of political, social and economic empowerment.
- Initiate engendered policy approaches.

Stage 3: Strategies and Policies
- Identify ICT policy interventions.
- Identify and work towards sectoral policy interventions.
- Create inter-agency contacts and implementation.

Moving the Giant Towards an Inter-agency, Inter-sectoral Approach

Government structures are established in such a way that they do not actually facilitate inter-sectoral approaches and implementation strategies. As a result, collaborative interventions within and across sectors are minimal and fail in tackling issues on multidimensional fronts.

Since gender issues are largely seen as the purview of national women machineries, it is important to examine the wider policy environment and political factors underpinning the establishment of national women machineries and their respective roles and functions. As countries shift their policy perspectives, there is the concern that gender issues might be relegated into social programmes viewing women as marginalized and underserved groups. Some of these critical concerns include:[78]

▸ The need to advocate for the incorporation of gender issues in the design of broad economic and sectoral adjustment policies. This requires provision of analytical tools and an information base for determining the gender impact of trade liberalization, structural adjustment, and globalization and the integration of relevant concerns;

▸ Mainstreaming of gender in decentralized programmes. As decentralization of government functions becomes the dominant approach to governance, the shift in decision-making and resource allocation locus requires an adaptation to local structure, rules and practices. While decentralization provides an opportunity to make programmes at local levels responsive to gender equity issues and ensures effective local level implementation of gender policies, it also increases accountability for gender equity by equipping local gender units and women's committees with appropriate tools;

▸ Ambiguous mandates. National machineries and focal points have been established but the ambiguous mandates, lack of clear definition of roles and responsibilities, and inadequate political support hamper their performance. Clarity in structures, processes and mechanisms needs to be emphasized;

▸ Non-achievement of the full participation of women in the decision-making process at the political and administrative levels. In most countries, parliamentary representation of women has been less than 10 percent of the total; and

---

[78] Selected from *Critical Concerns to Address in the 10-Year Review and Appraisal of the Beijing Platform for Action Regarding National Machineries*.

▸ Lack of clear link between action plans and their intended outcomes. There is no logical sequence of activities that will lead to the attainment of gender equality in socio-economic status.

The above concerns show that gender analysis is not a simple process for a ministry to address on its own. Even with the establishment of national women's ministries, due to the lack of resources[79] and lack of history in and mechanisms for substantive collaboration between ministries, governments have been unable to reasonably put in the required constructive thought, leadership, resources and knowledge on the social and cultural dimensions of gender within the specific contexts of a country. In such a scenario, the concept of a dedicated Gender Unit that parallels the importance of the central economic planning unit within government can be instrumental in taking into account many of the issues pertaining to gender and women's empowerment at the policy levels. A Gender Unit could assist in revising or developing guidelines to remove gender bias and discriminatory results for women, or add new regulations, develop circulars etc. that would better facilitate the achievement of the main goals of concretely addressing gender issues. In addition, a Gender Unit could address the identification of appropriate gender statistics and how to collate these in a country, while working closely with women leaders and civil society through a substantive consultative process.

A Gender Unit should be ideally mandated to coordinate an inter-agency and inter-sectoral approach within the country. Such a unit may need to either be placed within the central economic planning unit of a country or at least, have a status that is on par with it. The concept or mechanism such as the Gender Unit is not meant to replace the national women machineries already established nor the Ministry of Women's Affairs. The roles and responsibilities of these are quite distinct, just as the role of the Economic Planning Unit is very distinct from say the Ministry of Agriculture or Rural Development. Nor does the establishment of a Gender Unit discount the need to allocate adequate resources to national women machineries and/or the Ministry of Women's Affairs (see section on 'The Need to Strengthen National Women's Machineries').

A Gender Unit with participation by other agencies and civil society groups could study the following:

▸ Ways to improve government processes towards gender-sensitive policies;

▸ Information exchange on issues facing women and ICTs within the country;

▸ The relevance of an engendered approach to policy-making; in the area of ICT, especially with regard to Internet policy, and make recommendations to the telecommunications regulator (or Ministry of Communications), and to other Ministries;

▸ Ways of applying new technologies to network women's groups, NGOs and other related organizations;

▸ Ways to develop or support relevant content for women;

▸ Ways to further support ICT training for women in the region, implement best practices in the use of ICTs in relation to women;

▸ Incorporation of women ICT experts for government or ICT projects; and

▸ Directory compilation of women ICT experts, and the pooling together of resources nationally and internationally.

With the necessary expertise, information and knowledge concentrated within a Gender Unit, governments would be better able to effect a wider and more substantive consultation with women as well as to concretely integrate a gender perspective throughout all of their agencies and development programmes. It is therefore also critical that if a Gender Unit is indeed established that it receives more than sufficient political support and budgetary allocations.

---

[79] In an interview on 13 August 2004 by the Women's Feature Service with Dr Patricia Licuanan of the Asia-Pacific Women Watch (APWW) Network and President of Miriam College in the Philippines, Dr Licuanan noted "disturbing developments like agencies doing away with gender specialists and withdrawal of donor support for women's organizations." She added that some agencies think that gender mainstreaming means just the appointment of women, and as a result of this continued lack of conceptual clarity and political will, more and more gender advocates are going back to the rights-based approach (posted on the APWW-Meet mailing list on 21 August 2004).

Gender Concerns in ICT Policy

Nancy Hafkin's work which identifies the gender aspects in ICT policy is shown in Table 2. In her analysis, Hafkin also borrows from the work of Sonia Jorge. Table 2 clearly shows that addressing gender issues in ICT also requires governments to look at other sectoral policies and how these could adversely impact on a progressive and gender-sensitive national ICT policy. These are issues of training and literacy (basic skills and skills training), issues of human resource and employment (employment schemes, paid and unpaid work in the area of ICT) and other related issues that can impede women's active and substantive participation – for example, related legal issues that pertain to domestic violence, citizenship, guardianship, workers compensation, marriage/divorce, sexual harassment in the workplace, availability of maternity leave (to international standards/ILO guidelines), availability of paternity leave, ownership of resources particularly land, and even access to high quality and professional legal aid.

Table 2: Gender Aspects of ICT Policy Issues[a]	
ICT issue	**Gender aspect**
Infrastructure, Access and Appropriate Technology	
Infrastructure	▸ Is the infrastructure to be deployed throughout the country in the areas where women predominate? ▸ Are there provisions for high technology applications in areas where many women live outside of the capital and major cities? ▸ Women may be restricted from accessing ICT even when they are available in their communities as a result of social, economic, cultural or technological constraints. ▸ Gender awareness is essential in planning and implementing infrastructure.
Network modernization	▸ Does the proposed modernization provide infrastructure that is affordable to most women?
Network architecture	▸ Equipment and service providers can offer cost-effective and appropriate solutions for the majority of women.
Network deployment	▸ Choices of network infrastructure can be made that cater for the majority, focusing on universal access to ICT and not on expensive high-capacity specialized access. ▸ Affordable and forward-looking technology such as wireless alternatives that ensure low cost and affordable access can be used. ▸ When new technologies are implemented, ensure that women are included in training. ▸ The location of infrastructure should facilitate access for women.
Technology choice	▸ The affordability of service is a key issue for women. ▸ Limiting technology choice can militate against new players and new technology in the market that might bring down costs, e.g. many developing countries ban Wi-Fi Internet[b] and VoIP telephony. ▸ While limitation on the choice of mobile standards (e.g. GSM, CDMA) can prevent fragmentation of markets in initial stages, continued insistence on standards can block the entry of mobile technologies that are cheap and effective for underserved areas. ▸ Assessments should be undertaken to determine appropriate technology choice – who will use it and for what purpose? ▸ User-friendly technology, particularly in the context of low literacy levels, should be supported and promoted.
Sector liberalization	▸ While monopoly system operators understandably dispute this, opening the telecommunication and ICT sector to competition can bring in needed investment and force down end user prices to make access more affordable, notably to women.
Universal access	▸ Universal access concerns the establishment of telecommunications development funds and other programmes, funded by carrier fees and other revenues collected by regulators, to facilitate the expansion of access to the underserved.

	▸ It is the avenue for gender equality par excellence that has real possibilities of positively affecting the lives of the mass of women.
	▸ As telecommunication development funds reflect extremely important policy and set the rules for implementation of ICT projects in underserved areas, they deserve great attention from gender advocates.
	▸ Focus should be on developing gender-aware universal access policies stressing public access points as an alternative to more capital-intensive choices (one line per home) and ensuring that locations of public access points are gender-sensitive (e.g. not in bars or auto shops).
Universal service obligations	▸ Universal service is a specific obligation that regulators require of operators in return for licenses to contribute to universal service goals. Under universal service obligations, regulators can mandate the provision of telecentres in underserved areas.
	▸ Telecentre plans need to take into account the different needs of women and men in the concerned communities.
	▸ Gender equality advocates could lobby for incorporating gender-based issues in universal service rules. In most places, it has not happened yet because women's groups have not pushed for it.
	▸ Demands could include that service to underserved areas be delivered reflecting male-female distribution in the population, that priority be given to disadvantaged women such as single mothers, widows, disabled women, etc.
	▸ Service providers could be mandated to offer telephone subsidies or price packages targeted at rural women, the disabled and aged.
Regulatory Framework	
Regulatory frameworks	▸ Regulatory frameworks can permit the re-sale of mobile phone services, which are often profitable businesses for women to establish.
	▸ Regulatory frameworks can reduce licensing fees, spectrum prices and interconnection charges that can make ICT more accessible to women.
Tariff policy	▸ This covers both import duties and taxes on computer equipment and pricing schemes for communications services. High customs duties on mobile telephones and computer equipment as well as high prices for telephone service are deterrents to women users.
	▸ In preparation for competition in the telecommunication sector, many countries are rebalancing international and domestic tariffs to eliminate existing subsidies, most frequently on local service. This rebalancing has meant higher rates for local calls in many places, which hit the poor, the majority of whom are women, the hardest. Although it is expected that competition will lower prices in the long run, in the interim many users cannot afford local service. Among the ways to compensate for rebalancing costs are basing tariffs on forward-looking costs and establishing regional (e.g. rural vs. urban) tariffs.
Regulation	▸ Regulation is a vital area for advocates of gender equality in ICT. Regulators do not set policy but rather help in its implementation. Regulation produces a set of rules for market behaviour – who can provide what service and under what conditions – and sets the framework for achieving desirable outcomes established by national policy, particularly in the two areas of the greatest interest for ICT and to the empowerment of women: universal access and affordable services. It is an area that gender proponents should focus on.
Independent regulators	▸ An independent regulator can compel profit-driven private sector players to deliver on social and gender policy objectives such as universal access. In return for granting licenses, regulators can compel service providers to provide service to underserved areas where women predominate.
	▸ As regulators have the authority to set service priorities, gender equality advocates need to lobby to ensure that service to poor women in rural areas is a priority.

	▶ Regulators can provide funds for research, development and testing of technology that will serve women.
	▶ Those that secure licenses, particularly for cellular phones, are often required to fulfil community service obligations. Elements to ensure gender equality could be written into these obligations.
Radio frequency spectrum	▶ This issue also involves fees and licenses. Lower fees will encourage applicants to provide services to new markets, including women.
	▶ Licenses should be equitably and transparently distributed, so that women-owned businesses and businesses that serve women have a chance to secure licenses. Only in a small number of places, women-run community radio stations have obtained licenses.
Licensing[c]	▶ If fees for telecommunications, Internet service provider and mobile service licenses are high, they will be passed on to users, limiting the affordability to women and the poor. High fees increase the cost of telephonic and ICT services, discouraging women-owned communications businesses including telecentres, phone-fax-Internet shops and mobile telephony.
	▶ A certain number of telecommunications licenses should be allocated to women-owned businesses or businesses with women in management positions.
	▶ A gender equality licensing policy could waive license fees for communications businesses run by women entrepreneurs or those that provide services to underserved areas, particularly where women are concentrated.
	▶ Fees could be reduced for operators with gender equality and pro-handicapped employment policies.
	▶ Licenses can obligate providers to provide discounted service to certain customers such as poor women in rural areas.
	▶ Licensing procedures should be transparent so that women applicants can have ready access to the information.
	▶ License awards can contain certain conditions that promote gender analysis and mainstreaming for the particular company.
Development Applications and Capability Building	
Research and development and innovation	▶ Are there incentives directed at encouraging women in ICT research and innovation?
	▶ Are tools and software being developed using local languages?
	▶ Is there research and development on technologies for the illiterate and neo-literate?
	▶ Research efforts and programmes that promote women innovators can be subsidized.
	▶ Scholarships and grant programmes for women in science and technology can be created.
	▶ Technology programmes should promote and accept women's participation.
	▶ Grants or scholarships for women students and/or researchers can be provided for technical programmes at universities.
Systems for learning and training	▶ Do women have equal access to technical training?
	▶ Programmes to train women in ICT technical and management programmes, followed by internships, can be supported.
Software and applications[d]	▶ Do women have a say in what applications are being promoted?
	▶ Are they usable or accessible to many women?
	▶ Does the policy support free and open source software and Linux operating systems that can make software available to communities with limited budgets?
Building technological capacity	▶ Are opportunities extended to women as well as men?
	▶ Are there mechanisms for women to enter ICT fields and training programmes? To develop role models for young girls? To stem the brain drain?

	▶ Are training opportunities available not only for technology professionals but for non-professionals to use ICT?
ICT industry development and labour policies	▶ Encouragement and incentives should be given to encourage women to enter all segments of the ICT labour force, not just the menial electronic assembly jobs they have dominated in the past.
	▶ Enabling policy can encourage the establishment of teleworking which has provided jobs for many women.
ICT business development and e-commerce	▶ Enabling legislation for e-commerce should encourage women entrepreneurs.
	▶ SME ICT and communications businesses, with possibilities for ownership by women and women's groups, should be encouraged.
	▶ Telecentres can provide economic opportunities for women; they should be promoted for business development, with consideration for women owners.
	▶ A number of telecommunications licenses should be allocated to women-owned businesses.
	▶ Carriers could be obligated to do a certain percentage of business with women-owned businesses.
	▶ Training programmes could be promoted to establish ICT-related business opportunities (e.g., e-commerce, telecentres, wireless company ownership).
e-Government	▶ Women could benefit from many e-government services especially land and voter registration and license applications.
	▶ Women would especially profit from online availability of services that would otherwise require travel to the capital city.

[a] Hafkin, N., 'Gender aspects of ICT policy issues', prepared for the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, Seoul, Republic of Korea, 11-14 November 2002.
[b] Wireless Fidelity (Wi-Fi) is a network standard rapidly gaining in popularity in developed countries that creates wireless local area networks in homes, offices and, increasingly, restaurants, hotels and airports at speeds faster than advanced mobile phone networks. Wi-Fi Local Area Networks can be accessed with a relatively inexpensive network card.
[c] This section owes a heavy debt to Jorge, S. 2000. *Gender Perspectives in Telecommunications Policy: A Curriculum Proposal*. Geneva: ITU. http://www.itu.int/ITU-D/gender/projects/GenderCurriculum.pdf
[d] Intellectual Property Rights is an extremely controversial issue in the ICT sector today. Proprietary software which does not permit changes to the software purchased by the user limits its actual use and customization for the unique needs of women. Advocates of free and open source software counter this by promoting the sharing of software applications that can be modified by users. Such software applications are more conducive for enabling women to shape and use them according to their needs.

The Engendered Policy Process

Addressing gender requires detailed process planning. Gender needs to be taken into account explicitly not only in the content of ICT policy, but also in the process of policy elaboration, implementation, and evaluation (Hafkin and Taggart, 2001). In other words, gender equality goals must shift from being just integrated into public policy pronouncements to actual integration into public policy development and implementation.

Need for Gender-sensitive Indicators and its Definition[80]

Sex dissegregation of data is only the minimum requirement to help people differentiate the impact of development programmes, policies and projects on women and men and if possible by age, ethnicity, geographical location, etc. Disappointingly, however, in many cases the dissegregation of data by sex has become the only requirement to fulfil when addressing issues of gender equality.[81] This should not

[80] This section draws heavily on the globally-tested GEM tool developed by the APC WNSP and which in turns draws a lot of the concepts and understanding from the *Guide to Gender-Sensitive Indicators*, produced by the Canadian International Development Agency. http://www.apcwomen.org/gem
[81] The term 'Gender Statistics' is usually restricted to the kind of social and demographic data collected in household or individual censuses and surveys. In some countries, publications on 'Gender Statistics' also include a limited set of administrative data, largely from the education, health and justice sectors, and the civil service (UNIFEM, 2003). According to some sources, another major problem with the statistics today draws attention to the issue of under-enumeration of women's unpaid work in general in national accounts. This refers particularly to national and economic statistics (Corner, 2001).

Table 3: Comparison between Gender Neutral and Engendered Policy Process for Universal Access[a]		
Policy process steps	**"Gender neutral"approach**	**Engendered approach**
Problem definition	Focus on macro statistics such as number and percentage of households with telephone, average distance to access	Looks specifically at telephone penetration by gender, by female-headed households, average time and distance to telephone access, location of phones
Definition of goals and beneficiaries	No specific goals for women and girls	Explicit goals for women and girls as beneficiaries, particularly those with low incomes and living in rural areas
Formulation of policy options	Policy to increase number and percentage of households with telephones, promote development of telecentres	Same, but also to increase number of telephones per female-headed household, decrease travel time to access a telephone, locate telecentres easily accessible to women, and promote women as owners and managers
Choice of preferred option	Focus on overall impact	Focus on overall as well as gender-specific impacts
Enforcement of new policy	Develop support from consumer-advocate groups, ministerial authorities, and operators	Additionally, develop support from women's organizations, gender units in policy and regulatory agencies, and grass-roots groups involved in communications access
Implementation of policy decision	Define implementation modalities and administer process for compliance	Implementation process should be gender aware. Ensure participation of women's support groups so that implementation achieves goals set forth
Evaluation and monitoring	Process based on baseline statistics and quantitative methods	Based on overall and sex-disaggregated statistics and goals and qualitative methods of analysis; analysis of not only whether women benefit, but which women do so (age, class, race, rural/urban location)
Termination, renewal and revision	Decisions based on overall, macro-level impacts	Decision based on overall and gender-specific impacts

[a] Hafkin and Taggart (2001) adapted the work of Jorge, S. *Engendering IT Policy*. It is equally important that, in this elaborated process of policy development, implementation and evaluation, gender-sensitive indicators are specifically identified.

be so. In dealing with the 'socialization' of women and men and the inequalities that manifest as a result of this process, it is essential that suitable gender-sensitive indicators that are both quantitative and qualitative are further developed. Qualitative indicators are particularly valuable when measuring the immeasurable (see Box 13).

Gender-sensitive indicators, as the term suggests, are indicators that track gender-related changes over time. Their value lies in measuring whether gender equality/equity is being achieved through a number of ways. Gender-sensitive indicators take into account that gender roles exist and point to changes in the status and roles of women and men over time. It helps us to see in what ways a project affects gender roles and addresses or disregards gender discrimination.

Gender-sensitive indicators should be drawn from the identification of gender issues within the specific context of a project or activity. Many indicators that take gender into consideration such as the Gender

---

Box 13: Measuring the Immeasurable

For networks and networking organizations, it is as important to identify indicators that can measure qualitative change as it is to measure quantitative change. At the same time, the concepts of the objective and the subjective in relation to indicators need to be reconsidered. In traditional evaluation processes, indicators are supposed to be 'objective and verifiable'. In practice, most indicators have a subjective element to (in) them. For instance, 'increased rice production' may seem to be an objective indicator, but it may be based on subjective assumptions that such an increase is positive *per se*, regardless of how this affects the environment or different members of the farming community.

Indicators of social change are usually based on subjective criteria of justice and equity. This is as it should be. The important issue is that these criteria are clear. There are, however, ongoing efforts to develop indicators of qualitative achievement of both the tangible and intangible impact of activities on people and society. Work is going on to develop indicators of social and political change, self-reliance and empowerment and, at the same time, to set criteria and standards for 'subjective' indicators such as social development and empowerment so that everyone understands what is being measured. Each network and organization must identify its own indicators, but examples from previous efforts can help stimulate this process.

Source: Marilee Karl (ed). 1998/1999. Measuring the Immeasurable Planning, Monitoring and Evaluation of Networks. Women's Feature Service. Novib. p.63

Empowerment Measure, Human and Development Index and Gender Development Index (GDI)[82] are useful tools in tracking gender equality/equity. Many of these indicators are based on gender analytical models that have emanated from a feminist analysis of societies, relationships and development. On the other hand, a growing number of gender specialists believe that indicators by themselves are insufficient to capture women's experience especially in areas such as women's empowerment or participation. They argue that policy makers need to pay more attention to women's experience, towards which indicators can be a pointer.[83]

For example, during the World Conference on Women in 1995, APC WNSP implemented a women-led initiative that provided Internet access, electronic communications and information services and support to over 30,000 women attending the conference and the NGO forum. Over 40 women from 25 countries and speaking 18 languages worked together to set up and manage a computer networking facility, provided training and user support and facilitated the information flow and advocacy generated by women's networks. One of the main goals of this initiative was to demonstrate to other women this new technology was appropriate for and could be maintained by women. Three years after this initiative, APC WNSP conducted a study to gather feedback from the women who had worked on this project and explored, in more depth, women's relationship to and experience of working in ICTs. Among other things this study identified a series of women's needs in relation to use of ICT. These general needs can be used as a guide for asking questions to determine specific indicators in different environments.

Anecdotal evidence in measuring the gender impact of projects, however, has been severely criticized as being too subjective on 'just how good the project was'.[84] Since they cannot be compounded or synthesized, comparison of different projects and approaches is difficult. As Louise Chamberlain (2002) points out, "in the end, it is more powerful to show that approach A gave an increase in women's income of 30 percent, whereas approach B only led to a corresponding increase of 10 percent."

The commonly held belief is that quantitative indicators are measurements that stick to hard facts and rigid numbers and there is no question about their validity. Quantitative indicators are also seen as 'objective and verifiable' as they point out the number of computers in a workplace, telephones in a community, or computer- and Internet-related training workshops. Quantitative indicators deal with

---

[82] UNDP introduced the GDI to ascertain gender-related inequities and in terms of human development (UNDP, 2002). The resulting use of the GDI has revealed that in 2002, while literacy rates remain similar, the GDI showed male GDI rates are at least 15 points higher than female rates. It also showed that gender distinction does not only occur in developing countries but in economically advanced countries. The UNDP Human Development Report 2002 also highlighted the results of the use of the Gender Empowerment Measure where a great variation in empowerment levels persists between females and males (UNDP, 2002).

[83] *Guide to Gender-Sensitive Indicators*. Produced by Canadian International Development Agency. p.5.

[84] Most project monitoring and evaluation models recommend that it is equally important to record outputs and quality of outputs and to measure the impacts of outputs. In this respect, and because of its subjectivity and unreliability, the political nature of qualitative indicator use must be kept in mind.

outputs and are easier to define.

On the other hand, qualitative indicators are seen as subjective, unreliable and difficult to verify. Qualitative indicators are more difficult to ascertain because these indicators probe into the whys of situations and contexts of actions as well as perceptions of people. However, qualitative indicators are valuable to the evaluation process because projects and initiatives are involved in looking into changes in the lives of communities. Qualitative indicators seek to measure the impact of a project or an initiative and are therefore used to evaluate the long-term effects and benefits. From a gender/feminist perspective, qualitative indicators are particularly useful and important in understanding women's experiences and perceptions in relation to empowerment and development. For example, the number of women using telecentres becomes more significant when it is supplemented with details of how the information that they find and the links that they make through the Internet have contributed to their sense of independence and empowerment (see Box 14).

Box 14: Definition of Quantitative and Qualitative Indicators

Quantitative indicators can be defined as *measures of quantity*, such as the number of women users in a telecentre, the number of women trained in computer skills or the number of women who have access to the Internet compared to men.

Qualitative indicators can be defined *as people's judgements and perceptions about a subject*, such as the confidence those people gained in having computer skills for better employment opportunities or having access to the Internet to for better trading/marketing opportunities.

Source: Guide to Gender-Sensitive Indicators. Produced by Canadian International Development Agency. p.9

Properly developed and interpreted, qualitative indicators can also play a significant role in identifying constraints to implementation and obstacles to success, which would otherwise not be readily apparent. There are techniques such as surveys that can ensure the reliability and validity of qualitative indicators. An important principle to remember is that the use of qualitative indicators can play an important role in the promotion and understanding of stakeholder perspectives, particularly those relating to women,[85] and therefore fostering participation. Developing gender-sensitive indicators in a participatory fashion requires a focus on including people's own indicators of development.[86]

Guidelines for Setting Gender-sensitive Indicators for ICT Initiatives[87]

ICT indicators should be linked with the goals and purpose of an organization, an activity or a project. Goals can be long-term or short-term. For example, indicators for computer education projects that aim to provide skills for young people so that they can have better employment opportunities will need to measure the long-term and broader impact in relation to the creation of jobs, the types of jobs available, the number of girls and boys in these courses, the changes in the economic status of young people who become part of these programmes, the other opportunities that open up as a result of these programmes. Considerations that need to be taken into account in setting gender-sensitive indicators for ICT initiatives include:

1. **Indicators change during the process of implementation**

    It is sound practice to define indicators at the beginning of a project or an initiative. This will make it easier to track the progress and to evaluate the outcomes and impact of the projects. However, it is important to keep in mind that indicators can change during the process of project implementation. Indicators that were not anticipated can manifest themselves or become accentuated along the way.

2. **Indicators reflect specific realities and experiences**

    Indicators are determined based on the specific realities and experiences of the stakeholders of

---

[85] In interpreting qualitative indicators, a woman's silence can speak volumes, and should not be overlooked or dismissed. Qualitative, feminist researchers, in fact, encourage that interviewers allow the woman respondent time to collect her thoughts and words, and not try to 'suggest the answer'.
[86] *Guide to Gender-Sensitive Indicators*. Produced by Canadian International Development Agency. p. 6, 11.
[87] Grey-Felder, D. and Deane, J., 1999, 'Communication for Social Change: A Position Paper and Conference Report', January 1999. http://www.communicationforsocialchange.org/pdf/positionpaper.pdf

any project or initiative. The findings and critical issues identified in the evaluation must reflect the realities of the communities and the analysis should be organic to the community.

It is important to recognize the realities of women's lives when dealing with the performance of people within projects or initiatives. For example, it should be recognized that there are many factors including personal factors that affect women's performance in and responses to projects and initiatives. If the evaluation framework aims to find out how ICT use changes lives, then the documentation should be done in a manner that respects the integrity of the whole process. Care should be given to translations or interpretations such that complete stories of communities are documented.

3. **Technology indicators and gender differences**

Gender inequalities are mirrored in the development of access to and use of ICTs. While ICTs can be used as transformative tools that can change power relations between women and men, they can also end up bringing women back to their domesticated status. For example, a number of feminist researches are now interrogating the impact of ICTs for women who are now able to work at home and who may unwittingly be potentially placed in a position to assume additional domestic activities. Indicators should be able to point out if ICTs contribute to empowering or marginalizing women or if ICTs reproduce or transform gender roles.

It is also important to be mindful of unintended consequences brought about by projects or initiatives and be aware that ICTs also impact on women who do not have access to it. For example, in a village, women who produce handicrafts were able to market their products better because they were connected. An indirect consequence of this is that those who were not connected became more marginalized.

Example 1: Compared to other technologies, ICTs are more open to women, i.e., more women are participating in ICTs. But women are more active on the information and communications aspects rather than on the technology aspect. This is a reflection of the masculine and feminine assumptions.

Example 2: There are issues around access to ICTs. Women have access to becoming users of ICTs as information providers. Some have access to training and support either as trainers and recipients of trainings. But women have less access to the technical part of ICT. At some point in ICTs, there is a bottleneck where women have less access than men. Therefore, using the number of women Internet users is not sufficient to determine how women fare as users of ICTs. The theoretical approach for an ICT evaluation tool must look at many issues: women as users, women as information providers, women as trainers, and women as technicians.

Example 3: Measuring differential impacts. One can evaluate an ICT project from a gender perspective even though it is an ICT project not meant to work on gender issues. For example, a project that provides computers to school children that does not consider gender can be evaluated from a gender perspective by finding out how the project benefits girls and boys.

4. **Access indicators**

Access means not only access to technology but also access to information and know-how. Access is affected by age, class, gender, race or by one's socio-economic status. The most basic quantitative indicator of access is the number of women and men who have access to computers, telephones and the Internet. The factors affecting this access are usually the presence or absence of telecommunications and Internet infrastructures. However, quantitative indicators of access are only the starting point. The more significant indicators are often qualitative in nature. These include the quality of access to information that is useful, empowering and relevant for women. It also includes information for women who are not literate and in the appropriate languages. Other important indicators are those that reveal the amount of power and control women have over these resources and knowledge. Some of the questions that will help determine indicators are:

▸   Who makes decision about access to technology?

▸   Who creates the content?

▸   Who has the right to create content and language?

▸   How do women use the information they access?

5. **ICTs strengthen networking**

One of the most valuable advantages of ICT is its potential to strengthen and expand links, networks and networking initiatives. Many of the early studies of women's use of email have shown that women use new technologies to network with each other. While it is not easy to isolate the impact of networking, a useful indicator of success could be how ICTs helps link women and groups with similar interests who might otherwise not be in contact or how ICTs bring together networks of individuals or groups for promotion and action.

6. **ICTs support advocacy and substantive consultation**

Advocacy is broadly defined as a process of bringing about change. Many advocacy campaigns are directed at generating policy changes at government, institutions and other levels where policies are made. ICTs are increasingly being used as tools in most advocacy undertaking because of their effectiveness in group communication and interactivity. The outcomes of these campaigns, whether actual policy change occurs, are indicators of the success of the advocacy campaigns and to a certain extent the effectiveness of ICT tools for advocacy. In the short term, it may be possible to gauge if one is making a difference by examining whether the use of ICT tools generates discussion and support for women's concerns and issues, and catalyzes more action.

7. **ICTs promote a non-hierarchical and empowering organizational culture**

Access to strategic information can modify the way staff or members relate among themselves and can promote democracy in the organizations. Access can catalyze changes in the power structures of an organization because it enables women to participate more actively in decision-making.

8. **ICTs should promote democratic communication towards e-governance**

ICTs are increasingly being used as necessary and effective ingredients in communications strategies. The potential of these new technologies for participatory and democratic communication and the opening up of new communication spaces are seen as main contributions to social development and transformation. One must be mindful however that these spaces can exclude and alienate women who are less articulate and who may not speak the dominant international languages that are often used in these discussions. Indicators should take account of the means available that enable people/communities to feed their voices into debate and dialogue. The underlying assumption of the use of ICTs for information sharing and communication is that it provides a means for the sharing of knowledge and information directly by those who generate them. The quality rather than the volume or quantity of information generated is more meaningful as an indicator.

While women's increased participation in communication spaces is an indicator for the positive use of ICTs, it is even more important to measure their role in these spaces. Some of the indicators could be their involvement in the major decisions related to the initiative. This will ensure relevance and meaning – a vital component for any intervention.

The Need to Strengthen National Women's Machineries

Louise Chamberlain (2002) stresses that gender analysis is an exercise to understand differential impacts of projects or policy design, implementation, and outcomes for women and men. A wider application of gender analysis to ICT projects in the public and private sectors, particularly if they result in quantitative evidence, can bring key gender concerns to the attention of policy makers.[88] However, a number of major constraints continue to be faced in gender mainstreaming efforts, as addressing gender inequality

---

[88] While Chamberlain strongly promotes the strength of quantitative evidence in convincing policy makers to address gender inequality issues, she also believes that a gender analysis can be easily applied to government projects, and encourages that resources be directed towards doing so. This conviction is supported by the conduct of a gender analysis of 120 projects in the *info*Dev portfolio, including in-depth case studies of six projects, which brought attention to gender issues and changed the course of management action (Chamberlain et. al., 2002).

issues are sometimes viewed as an externally imposed political agenda. This is particularly evident when despite the location of national women's machineries in the highest level of government,[89] the lack of political support in terms of clear and strong mandates as well as resource allocation deters the implementation of planned programmes. This results in poor coordination of collaborating units, inability to develop viable policies and vulnerability to change in the political environment.[90]

If the national women's machinery is to be effective (for lack of a Gender Unit), a solid constitutional and legal status is crucial, as is a policy that specifies goals, clear lines of institutional responsibility and accountability. These should be supported by definitive planning procedures and a management structure that can transform policy into practice. However, such a structure usually exists in a political and financial vacuum in many countries which inhibits the achievement of demonstrable results. In addition, structure, functions and powers of national machineries may not be congruent, i.e. national machineries have more functions than they could be expected to implement in the light of their structure, powers and resources. While assistance in policy formulation can be a mandate, these bodies are bogged down by other welfare-related activities. Some of the functions are too difficult or inappropriate as they are presently constituted and supported. As part of a distinctive ministry (e.g. planning, social welfare), the unit might be expected to perform functions expected of the ministry *per se*.

At times, there is the tendency to treat gender and women's issue as separate and stand-alone concerns with plans separate from national and local concerns (e.g. separate plans for gender and women). An isolated focus would deter efforts to mainstream gender in government policy and programmes. There is a need to ensure that gender and women's issues are not marginalized in government plans and mechanisms, and that procedures for gender planning within sectors are strengthened. Sectoral and local interests and priorities mitigate against cross-cutting gender issues in plans and programmes. Issues that are considered vital by ministries and local agencies may be given priority thus sidetracking gender concerns. This becomes pressing in the light of limited resources under which these agencies operate (see Box 15).

Implications for Technical and Financial Resources

The Regional Meeting of National Machineries for Gender Equality in Asia and the Pacific: Towards a Forward Looking Agenda held on 12-14 November 2003 in Seoul, Republic of Korea, identifies that the inability to shift from a women in development paradigm to a gender and development paradigm is partially due to budgetary constraints.[91] The failure by national and local leaders to appreciate the concepts and goals of gender equality is a serious deterrent to mainstreaming gender in the bureaucracy. Gender plans are viewed as marginal in budgetary planning. Policy commitments are not thought through to their budget implications. Therefore, it is likely that programmes are under-funded and vulnerable to arbitrary budget reduction. As such, this lack of resources forces national women's machineries[92] to adopt coping strategies, where they end up dealing with one activity at a time, branching into small projects which should be the work of other agencies and use of existing networks (Moser, 1995: p.125). Hence, assessment of projects and programmes implemented by national women machineries indicates a predominance of welfare-oriented activities (income-generation, microfinance, cooperatives, microcredit).[93] The same scenario in all likelihood will be duplicated by the ICT sector if budgetary considerations in policy, programme and project planning to address gender inequalities are not included consciously.

---

[89] 'Highest levels of government' may vary from country to country. In some cases it is the Office of the President or Prime Minister. In others, the criteria are budgetary (finance ministry) or functional (the planning ministry). A problem with locating national machineries at the 'highest levels' is that, while it may enhance their image and 'influence', it may subvert the machineries' ability to perform their major functions. For example, the policy-making process may not be located at the highest levels of government and collaboration with NGOs may not be best undertaken from the highest office. Moreover, it has been argued that the highest office is oftentimes the venue for different concerns that compete for resources. Besides, the tendency to equate women's issues with gender issues is prevalent in many countries.

[90] http://www.aworc.org/bpfa/gov/escap/expertsmeet/draftreport.html

[91] 'Constraints to the Implementation of the Beijing Platform for Action' in the background paper for the Regional Meeting of National Machineries for Gender Equality in Asia and the Pacific: Towards a Forward Looking Agenda, 12-14 November 2003.

[92] The national machinery is usually a government structure instituted to integrate women's and gender concerns in substantive policies and programmes. According to the Beijing Platform for Action, a national machinery is a central policy-coordinating unit charged with policy advocacy functions, the support of gender mainstreaming, and monitoring and evaluation of gender-sensitive programmes.

[93] The inability to shift from welfare-based strategies to a human rights orientation is one of the major constraints in addressing gender inequalities.

Box 15: e-Governance – Philippines Case Study

In the last couple of years, e-governance has become a priority area of many Asian governments resulting in the implementation of various programmes that apply ICT in delivering government services and promoting transparency and accountability. Beyond these goals however, e-governance is being more closely defined alongside concepts of governance. The delivery of government services and information to the public using electronic means is differentiated as e-government. e-Governance, on the other hand, is defined as the transformation of (governance) processes (resulting from) the continual and exponential introduction into society of more advanced digital technologies.

e-Governance focuses on how these new technologies can be used to strengthen the public's voice as a force to reshape the democratic processes, and refocus the management, structure, and oversight of government to better serve the public interest.* Defined in this way, e-governance becomes significant in the exercise of citizenship and direct public participation in government activities. Both are key elements in women's empowerment and achievement of gender equality. It can potentially bring forth new concepts of citizenship, both in terms of needs and responsibilities. For many governments in Asia, however, allowing e-governance to make it possible for their citizens to truly communicate with government, participate in policy-making and strengthen democratic processes remain a huge challenge.

Three barriers immediately come to mind. First, the serious gaps in universal access to ICT as a means of participation; second, the complete absence of gender equality consideration in e-governance plans of governments; and third, the restrictions on civil liberties and freedom of expression imposed by undemocratic and fundamentalist states that seriously put into question citizen's access to information and participation in political processes.

The Philippines is a good case study that illustrates the first two barriers. In July 2000, the Philippine government adopted the Government Information System Plan (GISP) as the country's master plan for reforming governance through ICT. The GISP sets the enabling policy, institutional infrastructure and environment, direction, priorities and benchmarks for computerization of key government operations and activities over the next five to 10 years. It is envisioned as the blueprint for an electronic bureaucracy that is widely and readily accessible to its constituency. The plan fails to deliver in two fronts. First, it is gender blind and totally devoid of any provisions that address gender gaps in access, education, government services and political processes. Interviews conducted with the main government agencies responsible for the country's national ICT programmes and key government departments delivering public services, reveal that policy makers have not thought of factoring in gender in their e-governance projects at all. In fact, the first question that was invariably asked in these interviews was, "what does gender have to do with ICT or with e-governance projects?" Personnel in IT units, management information systems divisions, women's bureaus and gender and development technical working groups equally shared this same puzzlement.**

Even when the basic elements of gender mainstreaming are in place, none of those responsible for gender mainstreaming in these departments had any awareness about gender issues in relation to ICT programmes or projects within their department. Most of the personnel were familiar with ICT mainly through: the use of email in their work, their information work for their department's website and the use of their department's intranet. None of the gender and development programmes or projects were related to ICT directly.

Awareness about the differences of perspectives, roles, needs, and interests of women and men in relation to ICT was absent. At the same time, there was very little understanding that e-services may entail specific planning requirements that take into consideration women's and men's access, know-how and control over ICT. Second, the GISP sets an unrealistic target of ensuring that every citizen has online access by 2010 in a country where key economic and connectivity problems remain. Available data about access to the Internet indicates that the digital divide is very real with figures ranging from a low 2 percent to a high 6 percent of the population with Internet connection. While teledensity is higher at 9.05 per 100 person, the majority of Filipino homes do not have a phone because they cannot afford it or the infrastructure is not available. The most positive development in telecommunications access in the country is the phenomenal growth in mobile telephony and the popularity of short message service as a source of information. While

sex-disaggregated data is almost impossible to find, general access information indicate that women's access to the Internet is marginal, concentrated in main urban centres and skewed towards the educated and the middle as well as upper classes.

Notes:
* Bill Mead, e-Governance: Toward a Practitioner's Definition.
http://www.aspanet.org/source/communities/documentArchive.cfm?section=Communities&CmtyId=160&ParID=26
** Chat Ramilo conducted a gender assessment of the Philippines government's gender capacity in e-governance. The gender assessment was commissioned by the Canadian International Development Agency's for its *e-Governance for Efficiency and Effectiveness Programme* which will provide US$ 8 million in bilateral cooperation funding to support the Philippine government's e-governance programme.

Source: Chat Ramilo. 2002. National ICT Policies and Gender Equality Regional Perspectives: Asia. Paper presented at the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, held in Seoul, Republic of Korea, on 11-14 November 2002.

In many countries, national women/gender machineries have been instrumental in shaping national policies and programmes. Of particular importance are developments in incorporating the gender perspective into national and sectoral plans, budgeting, accounting and auditing. Linking gender concerns to budgeting and auditing is an effective means for making governments accountable and for raising planners' consciousness of the differential impact of budgetary decisions on women and men. In the Philippines, for example, government agencies and departments are enjoined to prepare a budget document disaggregating outlays in terms of impact on both women and men. In Indonesia, the national machinery ensures that the government's commitment to mainstreaming gender is reflected in national, sectoral and local plans.

Addressing gender means addressing the drawbacks in the socialization of women and men which result in discrimination and disempowerment. However, unravelling socialization is a very slow process, and needs to be undertaken at a highly conscientious level. Such demands require sustained funding and deployment of resources at its most optimal level, and attention to effectiveness rather than speed. Such demands may even mean a more purposive outreach rather than a blanket approach to servicing a community. The heavy emphasis of development aid on innovation and immediate sustainability leaves little room to spearhead adaptation, replication and upscaling, let alone room to substantively address gender issues in the area of ICT.

FINAL ANALYSIS AND CONCLUSION

There is no way of creating knowledge that is not circumscribed by the oppressions of our times if we cannot imagine a better future, if we cannot dream of a way of life that does away with the domination that is part of our everyday realities, if we cannot envision other ways of being. Without imagination, we cannot search for the kind of knowledge that allows us to fully understand our divided realities in order to transcend them. It is the imagination that allows us to move from where we are to where we would like to be even before we get there. We must learn to liberate the imagination, to unleash the energy that so many of us dissipate, often without realizing, in upholding the intellectual barriers that divide us not only from one another, but also from ourselves and from other ways of knowing.

- Charmaine Pereira, at WENT2003 Symposium, Seoul, Republic of Korea[94]

Vulnerability of the Gender Equality Agenda

In some cases, gains made in integrating a gender perspective and analysis into policies, programmes and projects are a result of the existing global advocacies of gender equality and women's empowerment advocates and, to a significant extent, donor pressure. However, such gains are more often than not rendered fragile, and extremely vulnerable to changes in their economic, political and social environments. The global social policy agenda now acknowledges that the division between economic policy, on one hand, and concerns for the social well-being of people, on the other, give rise to a false dichotomy that prevents the emergence of coherent policies to address pressing issues: responsive governance, socially friendly economic policies and universal provisioning of social services.[95]

However, it has also been noted that the translation of this awareness into effective policy and institutional mechanisms is yet to take place.[96] The State's role in social development continue to be the focus of debate, especially as institutions emerge with the potential to offer new services in social sector provisioning. In particular, the potential for partnerships with civil society and the private sector is being viewed as a way of addressing financing and management concerns, as the demands of social welfare provisioning increase and population's age. An emerging debate focuses on whether social policy should promote universal services under a strong State-based regulatory framework, or whether the role of States should be reduced to preserving the minimal public provisioning of basic services targeted at the most vulnerable sections of society, thus allowing the better-off to secure their needs through private markets for health and education.[97]

Nations mistakenly think that it costs too much to enable women to access and benefit from opportunities in the private and public spheres – politically, economically and socially. What Nations fail to grasp for all these decades is the simple truth about the burden of dependency. Ensuring that someone remains dependent on you, means you are doubly burdened. You not only look to your own needs, but you have to ensure that other person's needs are met as well.

Success in integrating gender perspectives will require commitment of financial and human resources, capacity building, top leadership support and a change of agendas, practices and attitudes at all functional levels. It will also be necessary to periodically collect data on gender and ICT trends, impact of ICT on gender equality, women's participation in the ICT sector, including at decision-making level, and to closely monitor trends over time. The effort will be painstaking but the rewards will be enormous for the advancement and empowerment of the world's women and their families. Imperative too are transparent, inclusive consultative mechanisms with civil society, particularly women's rights-based NGOs. More substantial collaborations too need to be forged between governments and NGOs, such as the example

---

[94] Pereira, C. 2003. 'Between Knowing and Imagining: What Space for Feminism in Scholarship on Africa?' in Radloff, J. *Women Voiceless? No, Deafness is the Problem.* Paper prepared for WENT2003 Symposium, Sookmyung Women's University, Seoul, Republic of Korea, October 2003.
[95] Deacon, 1999, cited in Subrahmanian, 2002, p.2.
[96] Mkandawire, 2000, cited in Subrahmanian, 2002, p.2.
[97] World Bank, 1999, cited in Subrahmanian, 2002, p.2.

of the Women's Council of Brunei Darussalam, an umbrella organization of women's organizations with over 2,000 members, has collaborated with government bodies in the establishment of a committee on social issues and in addressing women's concerns.[98]

Policy Recommendations for Action

There have been many recommendations put forward especially in the last couple of years addressing gender issues in the area of ICT. These have been made at international, regional, and national fora. The 1995 Beijing Platform for Action was the first international policy framework that explicitly mentioned gender issues in relation to ICTs. It recognized that areas of computer technology, satellite and cable television held opportunities for women's participation in communications.[99] The 47th session of the Commission on the Status of Women held on 3-14 March 2003 drew up no less than 24 broad recommendations for action that would contribute to addressing gender.[100] The UNESCAP Expert Group Meeting to Review ICT Policies from a Gender Perspective, held on 18-19 December 2001, recognized that current government policies refer mostly to IT rather than ICT, where the latter is normally used to only refer to the issue of convergence of computer, broadcasting and telecommunication technologies.

This particular meeting highlighted, among other key strategies for a gender-sensitive ICT policy, the need for all stakeholders to consider the fact that girls tend to leave formal education earlier than boys, and hence IT skill training should be started at an early level of school; and that ICT tools should also be effectively deployed to help mainstream gender. For example, ICTs could be instituted in national machineries to advance the status of women and used to actively and systematically collect and disseminate sex-disaggregated data. The meeting focused its recommendations under the issues of access, capacity building, employment and entrepreneurship as well as what can be done to facilitate an enabling environment for women's wider and fuller participation.[101] In addition, the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, held in Seoul, Republic of Korea, on 11-14 November 2002, drew up recommendations to each stakeholder, including national women machineries, while underlying the importance of an enabling environment and partnerships for the empowerment of women in all spaces.[102]

However, WSIS (Phase 1, December 2003), failed to further build on these recommendations and fell short of providing specific directions and action plans to effectively ensure gender justice within the new information society. In the meantime, the guidelines produced by the ITU Task Force for gender-sensitive policy-making (see Box 16) can be used either as a checklist of issues to consider when making decisions or to provide ideas on how to mainstream gender in regulatory and licensing agencies.[103]

If governments are indeed committed to integrating a gender perspective into their national ICT policies towards women's empowerment within the gender equality framework, then governments would need to:

‣ Acknowledge, protect and defend women's rights in the Information Society;

‣ Fully recognize that gender equality, non-discrimination and women's empowerment are essential prerequisites for equitable and people-centred development in the Information Society;

‣ Ensure that ICT governance and policy frameworks enable full and equal participation;

‣ Ensure that all ICT initiatives incorporate a gender perspective;

‣ Ensure that every woman has the right to affordable access;

‣ Ensure that all education and training programmes promote gender awareness;

[98] Factsheet based on Review and Appraisal of the Implementation of the Beijing Platform of Action, Report of the Secretary General (E/CN.6/2000/PC/2) published by United Nations Department of Public Information, May 2000.
[99] Fourth World Conference on Women, Beijing, 1995, produced the outcomes document called the Beijing Platform for Action. This can be found online at: http://www.un.org/womenwatch/daw/beijing/platform/. The Women and the Media, Section J, specifically can be found at: http://www.un.org/womenwatch/daw/beijing/platform/media.htm. The Beijing Platform for Action had its five year review in 2000 (see http://www.un.org/womenwatch/daw/followup/reports.htm) and the Asia-Pacific region held the ten-year review in Bangkok, Thailand in September 2004.
[100] http://www.un.org/womenwatch/daw/csw/47sess.htm
[101] http://www.unescap.org/esid/gad/Events/EGMICT2001/index.asp
[102] http://www.un.org/womenwatch/daw/egm/ict2002/reports/EGMFinalReport.pdf
[103] http://www.itu.int/ITU-D/gender/pdf/GenderAwarenessGuidelines.pdf

Box 16: Gender-aware Guidelines for Policy-making and Regulatory Agencies Recommended by the ITU Task Force on Gender Issues

General

▶ Facilitate and promote the establishment of a Gender Unit within the Regulatory Agency, the Ministry and/or as an inter-agency effort.

▶ Review, revise or develop new regulations, circulars, issuances and procedures to remove any gender bias.

▶ Promote gender analysis as part of the policy process.

▶ Develop and establish systems to gather gender statistics.

▶ Promote dialogue with other national entities like other ministries, regulatory bodies, etc.

Human Resources

▶ Ensure equal hiring opportunities for all women and men, regardless of age, class, ethnicity and race.

▶ Ensure that a certain percentage, targeting 50 percent, of all supervisory and management positions are occupied by women.

▶ Develop campaigns to attract women professionals (particularly for technical and decision-making positions).

▶ Develop and ensure the existence of appropriate support systems for professional women and men.

▶ Ensure that there are no wage disparities between the genders and establish a policy to eliminate any such gaps.

Training

▶ Ensure equal access to training opportunities.

▶ Promote gender-awareness training opportunities for women and men.

▶ Support technical and management programmes that train women professionals and create internship programmes with educational institutions.

Licensing Activities

▶ A certain percentage of licences should be awarded to woman-owned companies and/or companies with women in top management positions.

▶ Develop and market licensing procedures where potential women owners can have access to the information.

▶ Promote the development of business assistance programmes and partnerships with expertise in assisting women entrepreneurs.

▶ Develop licence award criteria based on social responsibility of the business as well as universal access objectives of the proposed venture.

▶ Ensure that licences awarded contain certain conditions to promote gender analysis and mainstreaming for the particular company.

Source: Jorge, 2001.

▶ Ensure that women and girls enjoy the right to equal access to educational opportunities in the fields of science and technology;

▶ Consult women for their viewpoints, knowledge, experience and concerns in a more substantive manner and make these more visibly integrated into policy-making, programme planning and implementation;

▶ Ensure the preservation and promotion of women's knowledge within the public domain of global knowledge; and

▶ Ensure that every woman and girl has the right to communicate and exchange information freely in safe and secure online spaces.

In addition, governments would need to pay special attention to issues of:

▶ Diversity in the ownership and control of content and the content itself;

▶ Free and open source software, technology development, copyright, trademarks and patents;

▶ Global information commons;

▶ Privacy and SPAM; and

▶ National governance of the Internet.

Table 4 below summarizes the key considerations in mainstreaming gender in the ICT sector.

Table 4: Key Issues to Consider for Gender-equal Outcomes in the ICT Arena		
ICT dimensions mediating access/use	**Inclusive strategies for equitable access/use**	**Some dimensions for gender-sensitive design**
Policy and Regulatory Frameworks	A balance between promotion of private ICT investment and strategies for addressing needs of low-income customers in policy, entailing promotion of public investment where required; risk-sharing with private investment; and enforcement of Universal Service Obligations as licence conditions.	Gender representation at all levels of policy- and decision-making; specific attention to rural areas; positive discrimination in training and capacity building for women; and gender dis-aggregated statistics, analysis and evaluation mechanisms.
	Where appropriate, strategic use of ICTs in social sector policies, e.g. health, education, and governance for wider, deeper and more locally-adapted reach of services.	Distinct goals and strategies with regard to women and girls in each sector, involving them as key actors and not only as beneficiaries.
Technology/Business Architecture	Technology mixes tailored to context for maximum value delivery at low costs.	Wireless connectivity, mobile telephony, free and open source software, multimedia, graphic/voice interface, offline applications.
	Viable business models that deliver affordable services, employing principles of sharing and aggregation.	Multi-service delivery models with an offline-online mix; telecentres as community access points; human interface, preferably with women managers at service delivery points; and piggybacking on existing facilities and institutions.
Content and Process Design	Information and communication delivery critical to basic needs, aspirations and rights of people, especially of socially disadvantaged.	Gender-specific content; participation of women in process and content design; content in local language specific to local culture; taking into account cultural factors impacting women's access to community areas; and processes streamlined to account for women's situation and needs.
	Adapt content and process to the local context.	

Source: Gurumurthy, A. 2004. Gender and ICTs: Overview Report, Cutting Edge Pack. Brighton: BRIDGE, Institute for Development Studies. p.52.

Final Note: The Right to Communicate

This e-primer asserts that the advocacy for a new information and communication environment should fully integrate gender concerns and women's advancement. The challenge is to ensure that individuals, communities, nations, and the international community gain access to, and are able to use effectively, the information and knowledge they need to address their development challenges and improve their lives. At the core of this new environment is the democratization of people's access to information and communication facilities and technological resources.

Fifty years ago, the UDHR recognized the right to information as a fundamental human right. The assertion of this right has become even more urgent at a time when technological advancement in the production of information and knowledge is reshaping the organization of our societies globally. Equally important is advocating for the recognition of communication rights as part of human rights. The exercise of our democratic freedoms and the full and equal participation in current economic development is the basis for the assertion of our rights to information and communication. Within this context, fall women's rights to equal and democratic access to ICTs. Gender equality, non-discrimination and women's empowerment are essential prerequisites for equitable and people-centred development in the information society.

Communication rights counter the current hegemonic ownership structure of national and global information networks. This advocacy is increasingly important to civil society worldwide who have very little voice in the national and international agreements and legislation to technological resources and information.

Rights related to access and use of the Internet and electronic communication infrastructure allows ordinary people to have their voices heard. The Internet has allowed the voices of ordinary citizens and organizations lacking strong financial resources to be heard. With over 200 million users worldwide and an estimated 1 billion users in 2005, the Internet provides a unique public sphere where decisions that shape people's lives can be freely debated and considered. It allows small groups and individuals, women and men - previously working in isolation from one another - to communicate, network, share information and prepare actions in ways they have never been able to before.

ICTs must be made available to all at an affordable cost and the development of infrastructure must ensure that marginalized groups are not further disadvantaged. This should be the strategic starting points for all concerned with gender equality and social transformation. In a globalized world that continuously undermines localized democratic institutions the Internet provides an essential means for defending and extending participatory democracy.

The Internet and other ICTs can be used to strengthen diversity and provide a platform for a multitude of voices, a pluralism of ideas and opinions and a place for cross-cultural exchange. However, this can only be true if developments are driven by a desire to preserve and enhance local and regional linguistic diversity and civil society has a voice in the policy formations, which regulate control and ownership of ICTs.

GENDER AND ICT WEB RESOURCES

American Association of University Women (AAUW)
http://www.aauw.org
The AAUW has a range of research publications on the topic of girls, computers and science.

Arab Women Connect
http://www.arabwomenconnect.org
An online forum for exchange of news and information on women's issues and programmes, particularly for women in the Middle East and North Africa region.

Asia Pacific Gender Equality Network (APGEN)
An Asian NGO supported by the UN that implements a range of women's advocacy and development programmes. APGEN has a Science and Technology programme that supports pilot programmes and advocacy related to increasing women's access to science and technology education and more effective application of IT to poor women.

Asian Women's Resource Exchange (AWORC)
http://www.aworc.org
AWORC is an Internet-based women's information service and network in Asia. It is an initiative geared towards developing cooperative approaches and partnerships in increasing access and exploring applications of new ICTs for women's empowerment.

Association for Progressive Communications Women's Networking Support Program (APC WNSP)
http://www.apcwomen.org
One of the first international non-governmental initiatives to recognize the importance of ICT to women and girls, APC develops training, participatory research, policy, and advocacy in the area of gender and ICT, information facilitation, and regional programme support.

Forum for African Women Educationalists (FAWE)
http://www.fawe.org
FAWE is a membership organization that brings together African women leaders and policy makers to support women's and girls' access to education, including science and technology education, and training.

GenderIT.org
http://www.genderit.org
GenderIT.org emerged from APC WNSP's advocacy work in ICTs. The website provides examples of national policy, gender-sensitive language, tools for lobbying, and an understanding of the impact of poor or positive policy.

Institute for Women in Technology (IWT)
http://www.iwt.org
IWT holds workshops and conferences, develops research, and does outreach to engage industry, academia, government, and communities to imagine, design, create and deploy technologies that have positive impacts on women around the world.

International Women's Tribune Centre (IWTC)
http://www.iwtc.org
The Tribune Centre's website serves women's activities internationally, with a focus on gender and development. The website links to major non-profit women's websites.

IT for Change
www.ITforChange.net
IT for Change has developed considerable expertise on ICT and gender through its work over the past few years in research, advocacy and project implementation. Their commitment to gender is guided by development critiques that argue people-centred development, and the central place in policy frameworks for social justice and equity, and a rights-based understanding of women's empowerment.

Society for International Development (SID), Women on the Net Project
http://www.sidint.org
SID's Women on the Net Project is supported by UNESCO and develops training materials, conducts training workshops, and develops publications devoted to equipping women with skills in using IT and raising awareness of the importance of IT for women's empowerment.

Synergy Gender and Development (SYNFEV)
http://www.enda.sn/indexuk.htm
SYNFEV is an entity of Environmental Development Action (ENDA) Third World, a non-profit international organization based in Dakar, Senegal. ENDA-SYNFEV aims at the dynamization of woman and gender components within ENDA's activities, in partnership with associations, groups and networks active in the same fields.

UNDP-APDIP Resources on Gender and ICT
http://www.apdip.net/projects/gender
This webpage provides information on UNDP-APDIP's initiatives related to Gender and ICT, in the areas of policy and project development, awareness and advocacy, and research and development, and includes a collection of useful online resources from publications and articles to videos.

Women in Global Science and Technology (WIGSAT)
http://www.wigsat.org
WIGSAT supports global networking on critical issues in science and technology for development. Activities include research and advocacy around critical gender, science and technology issues; and ICT-related activities with global or South-based initiatives.

Women of Uganda Network (WOUGNET)
http://www.wougnet.org
WOUGNET is an NGO initiated in May 2000 by several women's organizations in Uganda to develop the use of ICTs among women as tools to share information and address issues collectively. WOUGNET aims to promote and support the use of ICTs by women and women's organizations in Uganda, so that they can take advantage of the opportunities presented by ICTs in order to effectively address national and local problems of sustainable development.

Women's Learning Partnership (WLP)
http://www.learningpartnership.org
WLP is an international NGO that partners with women's community-based organizations and NGOs in North Africa and Western Asia to use IT for political participation and empowerment. WLP provides technical assistance and training to its partner organizations to create locally relevant materials (online, radio, video) for advocacy related to women's rights.

Women's Net (South Africa)
http://womensnet.org.za/ict/ict.htm
Women's Net is a South African-based NGO that serves as an online information portal for data and news on women's issues in Africa and around the world. Women's NET also supports programmes devoted to gender and IT in South Africa. The Women's Net website is a good source for many links to African and regional gender and IT initiatives.

World Association of Community Radio Broadcasters (AMARC)
http://www.amarc.org
An international NGO whose goal is to support and contribute to the development of community and participatory radio, with an emphasis on women's participation in community radio, through its Women International Network Initiative.

World Links for Development (WorLD) Program
http://poverty2.forumone.com/library/view/14821/
The WorLD Program, supported by the World Bank, provides IT access and training through schools and public access programmes in Latin America, Asia and Africa. Documentation on the programme available through the web notes high female participation.

Tools for Understanding the Intersections of Gender and WSIS
http://www.apcwomen.org/policy/resources/index.html#toolsgender

Gender in the Information Society: Emerging issues
http://www.apdip.net/news/genderis
This publication is a collection of 13 papers developed for a pre-WSIS seminar, produced in partnership with IT for Change and UNIFEM. It showcases perspectives that critique the engagement with new technologies in various development sectors such as governance, media and work. An edited video of the seminar was also produced.

The Beijing Platform for Action Meets WSIS
http://www.genderit.org/meetingpoint1.shtml
In early 2001, women and women's groups who had worked together during the Beijing Plus 5 review process began mobilizing to engender the policy-making process for WSIS. This information brief, produced by the International Women's Tribune Centre, supports that initiative by linking discussions in the preparatory processes of WSIS to the 12 'critical areas of concern' in the Beijing Platform for Action. Each page focuses on a critical area of concern, examples of how women are using ICTs in their programmes, and lobbying efforts by women at the WSIS PrepComs.

Putting Gender on the Agenda of WSIS
http://www.genderit.org/wsis/wsis-presentation-asw.ppt
Presentation by Anne Walker, International Women's Tribune Centre, February 2003. Walker's presentation explains the WSIS prepatory process and the different forces working to shape the WSIS agenda, highlighting the role of the two entities specifically focussed on gender: the multistakeholder Gender Caucus and the NGO Gender Strategies Working Group, from the Civil Society Caucus. The key issues identified by civil society in general and particularly key gender issues are outlined.

APC WNSP: Passage of the Document - Gender and ICT Advocacy through the WSIS process
http://www.genderit.org/wsis/wsis_process.shtml
The table maps the many meetings – both WSIS and other – in which women have participated and provided input to the 'Draft Declaration and Action Plan' for WSIS.

REFERENCES

_____. 2001. 'Information and Communications Technologies: A Priority for Women in Developing Countries'. Paper prepared for the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge, MA, 30 April-1 May 2001.

_____. 2001. China set to catch up with Japan. http://www.emarketer.com, 9 February.

Association for Progressive Communications. 2003. *ICT Policy: A Beginner's Handbook*. Johannesburg: APC.

APC WNSP. 2003. Gender Evaluation Methodology for Internet and ICTs: A Learning Tool for Change and Empowerment. pp. 42–43.

APC WNSP. Gender Analysis. http://www.apcwomen.org/gem/en/understanding_gem/genderanalysis.htm

APC WNSP. Gender Analysis Matrix.

APC WNSP. Gender and Information and Communication Technology: Towards an Analytical Framework. http://www.apcwomen.org/work/research/analytical-framework.html

APC WNSP. Gender Indicators. http://www.apcwomen.org/gem/en/gem_tool/step4.htm

APC WNSP. The Betel Chew Ritual.

Bhatty, K. 1998. 'Education deprivation in India: A survey of field investigations', *Economic and Political Weekly*, 4 July. pp. 1731-1740.

Chamberlain, L. 2002. 'Considerations for Gender Advocacy vis-à-vis ICT Policy and Strategy'. Paper presented at the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, Seoul, Republic of Korea, 11-14 November 2002. Ref: EGM/ICT/2002/OP.2.

Chamberlain, L., Hafkin, N., Huyer, S. 2002. Recommendations for the Operational Integration of Gender in *info*Dev – Draft for discussion, unpublished *info*Dev paper.

Costanza-Chock, S. 2003. 'Data slaves: low-skill infowork in US prisons'. Thesis presented to the Faculty of the Annenberg School for Communication in partial fulfillment of the requirements for the Degree of Master of Arts. Cited in Gurumurthy, A. 2004. *Gender and ICTs: Overview Report*. Brighton: BRIDGE, Institute of Development Studies. p.25.

Dhar, A. (moderator). 2003. Summary of Discussions: From 13 September to 12 December. Discussion list by i4d on Gender ICT: Issues, Implications & Opportunities. http://www.dgroups.org/groups/GenderICT/docs/GenderIctReport.doc

Evers, H. 2002. Transition towards a Knowledge Society: Malaysia and Indonesia Compared. http://www.uni-bielefeld.de/soz/iw/pdf/Evers_Transition.pdf

Fontaine, M. 2000. 'A High-Tech Twist: ICT Access and the Gender Divide'. Knowledge Enterprise Inc. http://www.TechKnowLogia.org

Gibbons, D. S. and Kasim, S. 1990. *Banking on the Rural Poor*. Penang: Centre for Policy Research, Universiti Sains Malaysia.

Gurumurthy, A. 2004. *Gender and ICTs: Overview Report*. Brighton: BRIDGE, Institute of Development Studies.

Gurumurthy, A. and Sarkar, R. 2003. *Poverty Alleviation through Tele-centre Initiatives*. Bangalore: IT for Change. http://itforchange.net/mambo/content/view/62/40/

Hafkin, N. 2002. 'Gender Issues in ICT Policy in Developing Countries: An Overview'. Paper presented at the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, Seoul, Republic of Korea, 11-14 November 2002.

Hafkin, N. and Taggart, N. 2001. 'Gender, Information Technology, and Developing Countries: An Analytic Study'. For the Office of Women in Development, Bureau for Global Programs, Field Support and Research, United States Agency for International Development. http://www.usaid.gov/our_work/cross-cutting_programs/wid/pubs/hafnoph.pdf

Henson, V. 2002. How to Encourage Women in Linux. http://www.faqs.org/docs/Linux-HOWTO/Encourage-Women-Linux-HOWTO.html

Hersh, M. 2000. 'The Changing Position of Women in Engineering Worldwide'. *IEEE Transactions of Engineering Management*. Vol. 47, No. 3, August. p.346.

Heyzer, N. 2002. UNIFEM and Information Technology. July.

Jorge, S. N. 2001. 'Gender-aware guidelines for policy-making and regulatory agencies'. Prepared for the Task Force on Gender Issues, August 2001, Telecommunication Development Bureau, International Telecommunication Union. http://www.itu.int/ITU-D/gender/pdf/GenderAwarenessGuidelines.pdf

Jorge, S. N. 2000. 'Gender Perspectives in Telecommunications Policy: A Curriculum Proposal'. Report of Working Group I, Third Meeting of the Task Force on Gender Issues, International Telecommunication Union, Geneva, Switzerland, 9-10 October 2000. Document TFGI 3/4 E. http://www.itu.int/ITU-D/gender/projects/GenderCurriculum.pdf

Kabeer, N. 1999. 'From feminist insights to an analytical framework: An institutional perspective on gender inequality', in Kabeer and Subrahmanian (eds.), op. cit.

Kabeer, N. 1997. 'Tactics and trade-offs: Revisiting the links between gender and poverty', *IDS Bulletin*, Vol. 28, No.3. pp. 1-13.

Kabeer, N. 1994. *Reversed Realities: Gender Hierarchies in Development Thought*. London: Verso, 330pp.

Kabeer, N. and Subrahmanian, R. 1999. 'From concepts to practice: Gender-aware planning through the institutional framework', in Kabeer and Subrahmanian (eds.), op. cit.

Kabeer, N and Subrahmanian, R. (eds). 1999. *Institutions, Relations and Outcomes: A Framework and Case-Studies for Gender-Aware Planning*, New Delhi: Kali for Women.

Kaplinsky, R. 2002. 'Global Integration: A Race to the Bottom', *IDS News.* http://www.ids.ac.uk/ids/news/Archive/HDRkapkinsky.html

Kee, J. 2004. 'Using ICT in Services, Public Education and Advocacy'. Case study prepared for the APC WNSP-organized Gender and ICT Policy Advocacy Workshop, Asia Pacific NGO Forum, Beijing+10, Bangkok, Thailand, 2 July 2004.

Kenny, C. 2001. 'Information and Communication Technologies and Poverty', in TechKnowLogia, July/August. Knowledge Enterprise Inc. http://www.TechKnowLogia.org

Kenny, C., et. al. 2000. 'ICTs and Poverty'. Draft manuscript, World Bank. In *Information and Communication Technologies: A Priority for Women in Developing Countries*. Paper presented at the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge MA, 30 April - 1 May 2001.

Kuga Thas, A. M. 2003. 'Potential Benefits of ICT and Gender Related Barriers'. Paper prepared for UN Economic and Social Commission for Asia and the Pacific and presented at the Forum on Gender and ICTs, Kuala Lumpur, Malaysia, 21 August 2003.

Longwe, S. H. 2002. 'Spectacles for Seeing Gender in Project Evaluation'. Presented at the APC WNSP Africa Gender Evaluation Workshop, Zanzibar, Tanzania, 19-23 November 2002.

Marchand, M. H. and Runyam, A. S. 2000. *Gender and Global Restructuring: Sightings, sites and resistances*, London and New York: Routledge. pp. 3-4

Mitra Sr, S. 2001. 'New Technologies for Development and Disaster Relief'. Paper presented at the United States Agency for International Development Conference, Washington, DC, January 2001.

Mitter, S. 2001. *Asian Women in the Digital Economy: Policies for Participation*, Kuala Lumpur: UNDP.

Mitter, S. 2000. 'Keynote Address on Women in Knowledge Societies: Challenges and Opportunities'. Presented at the Global Knowledge II Women's Forum, Kuala Lumpur, Malaysia, 6-7 March 2000. http://www.globalknowledge.org/gkii/gkf_womenforum_prog.htm

Mitter, S. 1998. 'On Questioning the Globality of Knowledge: Information Society and Women's World', GASAT Asia Conference, August. In *Information and Communication Technologies: A Priority for Women in Developing Countries*. Paper presented at the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge MA, 30 April - 1 May, 2001.

Mitter, S. 1995. 'Who benefits: measuring the different impact of new technologies' in *Missing Links: Science and Technology for Sustainable and Equitable Development*. Ottawa: International Development Research Centre. p.234.

Mitter, S. 1995. 'Information Technology and Working Women's Demands' in Mitter, S. and Rowbotham, S. (eds.) *Women Encounter Technology: Changing Patterns of Employment in the Third World*. London and New York: Routledge. pp. 19-43. http://www.unu.edu/unupress/unupbooks/uu37we/uu37we05.htm#2.%20information%20technology%20and %20working%20women's%20demands

Mitter, S. 1995. in Ng and Kua (eds.) 1995. *New Technologies and the Future of Women's Work in Asia*. Workshop Report, Malaysia, 13-16 September 1994. Maastricht, the Netherlands: United Nations University / Institute for New Technologies Publications. p.67.

Mitter, S. and Rowbotham, S. (eds.) 1995. *Women Encounter Technology: Changing Patterns of Employment in the Third World*. London and New York: Routledge. http://www.unu.edu/unupress/unupbooks/uu37we/uu37we00.htm#Contents

Moser, C. O. N. 1993. *Gender Planning and Development: Theory, Practice and Training*. London: Routledge.

Ng, C. 1999. 'Making women's voices heard: technological change and women's employment in Malaysia' in *Gender, Technology and Development*, Vol. 3 No. 1. p.24.

Ng, C. 1998. 'Teleworking and Gender in the Information Age: New Opportunities for Malaysian Women'. Paper presented at the Regional Conference on Gender and Technology in Asia, Bangkok, Thailand, 4-7 August 1998. http://www.apdip.net/projects/seminars/it-policy/cn/resources/cecilia/TWGASAT.html

Ng, C. and Yong, C. 1995. 'Information Technology, Gender and Employment' in Mitter, S. and Rowbotham, S. (eds.) *Women Encounter Technology: Changing Patterns of Employment in the Third World*. London and New York: Routledge. http://www.unu.edu/unupress/unupbooks/uu37we uu37we0k.htm#9.%20information%20technology, %20gender%20 and%20employment

Nua Internet Surveys. http://www.nua.ie/surveys/

Ramilo, C. 2002. 'National ICT Policies and Gender Equality: Regional Perspective—Asia'. Paper presented at the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women, Seoul, Republic of Korea, 11-14 November 2002. Ref: EGM/ICT/2002/EP.2.

Ramilo, C. and Villanueva, P. 2001. 'Agenda Item 4: Issues, Policies and Outcomes: Are ICT Policies Addressing Gender Equality?', UNESCAP Expert Group Meeting to Review ICT Policies from a Gender Perspective, Bangkok, Thailand, 18-19 December 2001.

Rathgeber, E. 1995. 'Schooling for What? Education and Career Opportunities for Women in Science, Technology and Engineering', in *Missing Links: Science and Technology for Sustainable and Equitable Development*. Ottawa: International Development Research Centre. pp. 181-200.

Rathgeber, E. and Adera, E. O. (eds.) 2000. 'Gender and Information Revolution in Africa' in *Information and Communication Technologies: A Priority for Women in Developing Countries*. Paper presented at the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge MA, 30 April-1 May 2001.

Reardon, G. 1998. 'Globalization, Technological Change and Women Workers in Asia' in *Information and Communication Technologies: A Priority for Women in Developing Countries*. Paper presented at the International Meeting on Gender, Science and Technology: Current Trends and Future Action, Radcliffe Public Policy Centre, Cambridge MA, 30 April-1 May 2001.

Rose, P. 1995. *Gender and Education Policy: Lessons from the World Bank*, Brighton: Institute of Development Studies.

Sarkar, R. 2003. 'Building Information Societies: Grappling with Gendered Fault-lines'. *DATAQUEST*.

Shreiner, H. 1999. 'Rural Women, Development, and Telecommunications: A Pilot Program in South Africa'. *Gender and Development*. Vol. 7 No. 2, pp. 54-70, in Benjamin, P. *Telecentre 2000: International Case Studies: Africa.*

Sprigman, C. and Lurie, P. 2004. 'Broadband Marxism', in *Foreign Policy*, March/April, http://www.foreignpolicy.com/story/cms.php?story_id=2509. Cited in Gurumurthy, A. 2004. *Gender and ICTs: Overview Report*. Brighton: BRIDGE, Institute of Development Studies. p.20.

Subrahmanian, R. 2002. 'Gender and Education: A Review of Issues for Social Policy' in *Social Policy and Development Programme* Paper No. 9. United Nations Research Institute for Social Development. April.

United Nations Development Fund for Women. 2000. *Progress of the World's Women 2000*. New York: United Nations. p.28. http://www.unifem.org

United Nations Development Programme. 2002. *Human Development Report 2002*. New York: UNDP. http://www.undp.org

Wickett, E. 2004. 'Video for development communication', *The Drum Beat*, Issue 256, 5 July, The Communication Initiative. http://www.comminit.com/drum_beat_256.html

Williams, S., Seed, J. and Mwau, A. 1994. *The Oxfam Gender Training Manual*. Oxford: Oxfam UK and Ireland.

Youth Creating Digital Opportunities. 2003. 'Talk to Her: A Dialogue to Action among Young Women in ICT'. Consultation Report. 24 October - 30 November 2003.

ABOUT THE AUTHORS

Angela M. Kuga Thas has been a member of the APC WNSP since August 2002. An advocate for women's empowerment and non-discrimination, Angela draws her knowledge and experience from her wider networking and previous work with women's rights advocates on the CEDAW Convention and in the area of women's sexual and reproductive health, as well in the provision of micro-credit for poor women. Angela has been particularly active in supporting the work of APC WNSP in its gender and ICT policy advocacy during the processes of the first phase of WSIS. She played a lead role in the APC WNSP's inaugural Gender and ICT Awards collaborative project with GKP, and in the successful Malaysian replication of WENT, a regional ICT training workshop which was jointly managed annually by the APC WNSP and APWINC on behalf of AWORC from 1999 to 2004.

Angela has always been passionate about building up the capacity of others, particularly women, and with a group of like-minded women and men, founded KRYSS (Knowledge and Rights with Young people through Safer Spaces). Working within a gender equality and human rights framework, KRYSS aims to better enable young people in dealing with and addressing identity-based discrimination, and adopts the use of creative arts and expression in our training. A Malaysian, Angela designed the Seed Grant and Small Innovative Project (SGSIP) Fund of the GKP and plays an advisory role to its Youth Social Entrepreneurship Initiative.

Angela is also a member of the Advisory Board of the Global Fund for Women and the International Advisory Committee for BRIDGE at the Institute of Development Studies in the United Kingdom. She currently sits on the Board of the Association for Women's Rights in Development.

Chat Garcia Ramilo is a Filipino national residing in the Philippines. She has been specializing in gender, ICT and women's electronic networking for the last nine years. Chat is currently the Global Coordinator of APC WNSP. For the last three years, she has managed APC WNSP's ground-breaking GEM project.

As a gender and ICT specialist, Chat has worked as a gender and ICT consultant for UNIFEM, UNESCAP, the United Nations Division for the Advancement of Women, the Canadian International Development Agency and the World Bank. She has also been a speaker and resource person in international workshops and conferences in many countries. The most recent of these are at the UNESCO Expert Group Meeting on Gender Issues in the Information Society (Paris, July, 2003), United Nations Commission on the Status of Women, 47th Session (New York, March, 2003), Asia-Pacific Regional Conference on WSIS (Tokyo, January 2003), and the UN Division for the Advancement of Women Expert Group Meeting on Information and Communication Technologies and Their Impact On and Use as an Instrument for the Advancement and Empowerment of Women (Seoul, November 2002).

Cheekay Cinco has worked as the Regional Coordinator for GEM for ICTs and Internet-based initiatives, one of the major projects of the APC WNSP in the past three years. As such, she has assisted several projects and initiatives in Asia-Pacific in developing and implementing gender evaluation in their work. She was also involved in drafting and finalizing the current version of the GEM tool <http://www.apcwomen.org/gem>. She also assisted the projects supported by GKP through its SGSIP fund in incorporating gender in the evaluation of their projects.

Aside from being an active member of the APC WNSP, she is also one of the founding members of WomensHub, a Philippine-based organization that focuses on gender and ICT issues in the Philippines. She is currently managing WomensHub's project called 'SheBlogs', which aims to develop an open source, web management application and website for Filipino women. She has been working in the area of gender and ICT since 1999 when she was the Project Administrator for AWORC, an online regional network of women's resource centres and organization focusing on utilizing ICTs for women's empowerment. Her experience in AWORC included managing the network's regional website for the Five-Year Review of the Beijing Platform for Action. She has also been involved as a trainer, and as part of the coordinating team of the WENT initiative.

APDIP

The Asia-Pacific Development Information Programme (APDIP) is an initiative of the United Nations Development Programme (UNDP) that aims to promote the development and application of information and communication technologies for sustainable human development in the Asia-Pacific region. APDIP aims to meet its goals by focusing on three inter-related core areas: (i) policy development and dialogue; (ii) access; and (iii) content development and knowledge management.

APDIP collaborates with national governments, regional, international and multi-lateral development organizations, UN agencies, educational and research organizations, civil society groups, and the private sector in integrating ICTs in the development process. It does so by employing a dynamic mix of strategies – awareness raising, capacity building, technical assistance and advice, research and development, knowledge sharing and partnership building.

http://www.apdip.net

APC WNSP

The Association for Progressive Communications Women's Networking Support Program (APC WNSP) was initiated in 1993 in response to several convergent needs and demands from within the women's movement. It is a global network with over 100 women and their organizations from more than 35 countries. They are individual women and women's groups and organizations working in the field of gender and ICT.

APC WNSP promotes gender equity in the design, development, implementation, and use of ICTs - with special focus on inequities based on women's social or ethnic background - through the provision of research, training, information, and support activities in the field of ICT policy, skills-sharing in the access and use of ICT, and women's network-building.

http://www.apcwomen.org

Also available from UNDP Asia-Pacific Development Information Programme

e-Primers for the Information Economy, Society and Polity

- ▶ e-Commerce and e-Business
- ▶ e-Government
- ▶ Genes, Technology and Policy
- ▶ ICT in Education
- ▶ Information and Communication Technologies for Poverty Alleviation
- ▶ Internet Governance
- ▶ Legal and Regulatory Issues in the Information Economy
- ▶ Nets, Webs and the Information Infrastructure
- ▶ The Information Age

www.apdip.net/elibrary

e-Primers on Free/Open Source Software

- ▶ Free/Open Source Software – A General Introduction
- ▶ Free/Open Source Software – Education
- ▶ Free/Open Source Software – Government Policy
- ▶ Free/Open Source Software – Licensing
- ▶ Free/Open Source Software – Localization
- ▶ Free/Open Source Software – Network Infrastructure and Security
- ▶ Free/Open Source Software – Open Standards

www.iosn.net

All e-Primers are now available in Wikibooks for updates:
http://en.wikibooks.org/wiki/Category:APDIP_Books

Asia-Pacific Development Information Programme

www.apdip.net

UNDP Regional Centre in Bangkok
3rd Floor, United Nations Service Building
Rajdamnern Nok Avenue
Bangkok 10200, Thailand

Tel: +66 2 288 1234
Fax: +66 2 280 0556
E-mail: info@apdip.net