An Empowerment Approach to Gender Equality in the Information Society: Perspectives from East Asia*

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Adopting an empowerment framework, this paper reviews both available statistical data and a range of case studies in the East Asian context, to illustrate how the empowerment approach is critical for achieving gender equality in the information society in the region. The paper focuses on the use of ICTs and its implications for women in the areas of work and governance, in particular. Case studies are deployed to bring out the issues in analysing the dynamics of gender inequality and women's agency and how these interact at various institutional levels – the household, community, state, and market – to empower or (intentionally or unintentionally) disempower women. The case studies particularly highlight questions of identity, control and ownership, and illustrate how issues overlap from one institutional level to another, reflecting that the perpetuation of gender inequality through women's disempowerment is quite systemic. The paper also links and contextualises the local within the global and the gendered context of the information society, and concludes with some broad policy recommendations.

Introduction

Socioeconomic and political power in the global society today is increasingly defined by control over, access to and use of information. In such a society, 'information' (and products and services related to it) has become a significant tradeable and very profitable good, tipping the scales even further against and negatively impacting the traditionally important comparative economic advantage of countries which own natural and agricultural resources.[1] According to Govindan Parayil (quoted in Roy 2003) from the National University of Singapore, although the increasing returns from informational or digital capitalism are not an anomaly, they have created an instability marked by the most unequal distributions of income and wealth in human history. Just as one can be enriched financially or otherwise when one has access to, control of, and ownership over material resources, one can also be enriched by having 'the right information at the right time and at the right place'. Likewise, one can be impoverished without access to, control of and ownership over these resources. But because of the increasing profitability of informational capitalism, this impact – positive or negative – of enrichment or impoverishment is exponential,[2] and this has serious implications for the 'utopic' information society in terms of communication rights[3] and freedom of

information, which in turn impacts the ease and extent of knowledge-sharing.[4] In the utopic information society, information and access to information and communication technologies (ICTs) are ideally global public goods to be developed and governed in the public interest.[5] This vision is shared by a number of civil society organisations which have actively advocated, during the two-phase World Summit on the Information Society (WSIS),[6] the right of access to knowledge and free exchange of ideas and cultural assets, among other issues. However, the information society is propagated against a backdrop where the status quo global systemic powers determine what kind of information society the world will get and 'should' embrace. In this dominant paradigm, instead of material production, it is the actual capacity and speed in harnessing the potential of information and the expansibility and proliferation of knowledge – as we consume information, we generate knowledge – that are becoming critical differentiating factors which separate the developing from the developed. This has resulted in the rejection of problematic concepts like 'digital divide', 'information society', 'knowledge economy' and 'multistakeholderism'[7] by some civil society actors, including groups advocating for communication rights. This is because the disparities in access to ICTs are a symptom of broader social and economic divides between and within countries rather than a specific 'digital divide' which can easily be demarcated. The term 'knowledge economy' implies that information and knowledge are commodities to be traded, protected, and marketed to those with the capacity to buy them, rather than be made accessible to all. 'Multistakeholderism' in an ideal world would not be problematic; however, in the real world as it exists today, it glosses over the important goals of making processes more inclusive and transparent, which would then allow and consider a diversity of voices and perspectives. Control over 'who harnesses what information to benefit from certain knowledge' and 'to what extent that knowledge is further shared and with whom' has also become a politically volatile issue between the state and its citizens since the 11 September 2001 attacks.[8] Hence, the information societies in the various sub-regions are not free from the existing and very gendered global frameworks of governance, ownership and control over resources – particularly in the areas of technology, finance and trade and, now, information. As countries start to lose their traditional and historical economic comparative advantage in international trade, they are quick to turn to the potentials of information and knowledge as tradeable goods. However, because developing countries own little protected information, the enforcement of Intellectual Property Rights (IPR) has become a tacit taxation of the developing countries, who have to 'import' information in order to develop their economy and society further (Gerster and Zimmermann 2003). IPR has effectively infiltrated the domain of food and medicine, threatening the sustainability of indigenous knowledge and biodiversity.[9] Women as traditional bearers of local and indigenous knowledge find themselves further obscured from today's wired information, communication, and knowledge systems. Access to ICTs is spoken of in terms that are devoid from the socially and culturally constructed gender roles and relationships which often limit the capacity of women and men to participate on equal terms in the information society. It was within the negotiation arena of the WSIS, particularly Phase One in Geneva in 2003,[10] that these substantial issues could have been addressed. However IPRs, rules and barriers imposed by trade agreements, external debt and interconnection costs were completely left out.

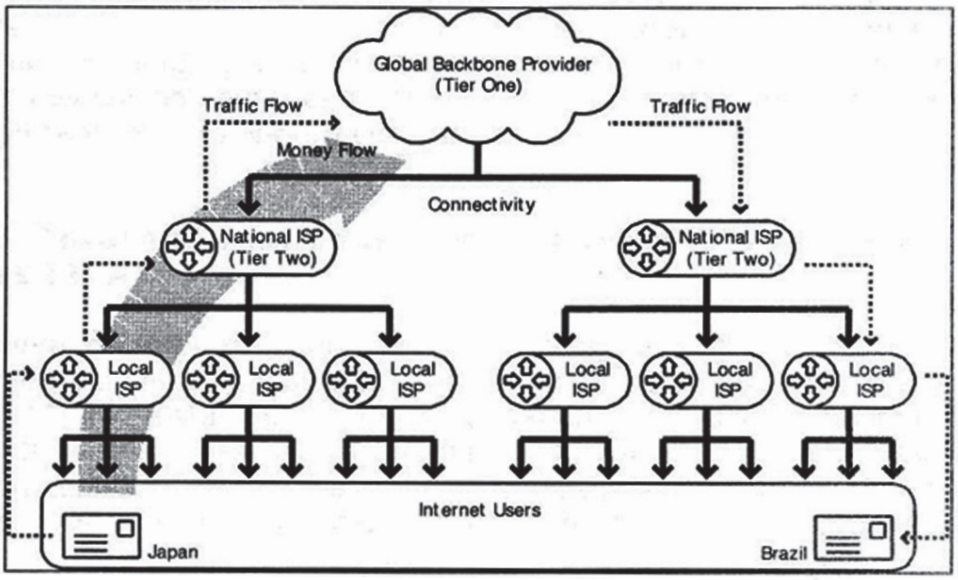
Information Society, Tell Me Thy Name[11]

In East Asia, it is difficult to speak about 'the' information society in general terms. In an ideal world, the term inherently implies an informed society. This means that information must be made accessible in a

timely manner and be considered a public good, so that everyone, rich or poor, can be kept equally informed on matters and issues that can affect and obstruct their overall well-being. This includes educating the public on how to decide for themselves whether a piece of information has sufficient credibility. However, in the information society, being informed and keeping informed is dependent not just on access to ICTs – with its economic, social, cultural and political aspects – but also on the accessibility of information, including issues of availability and transparency of that information. Therefore, issues of access to ICTs must include an analysis of power, including the politics of inclusion and exclusion, which has strong gender dimensions. Who wields power and how it is wielded, at local, national as well as global levels, cannot be ignored in conceptualising the contours of the emerging information society.[12]

Access to ICTs in East Asia corresponds strongly with levels of human development indices and in-country telecommunications infrastructure. Telecommunications infrastructures differ quite significantly among countries in the region, with those primarily in the Mekong region lagging far behind the rest. Moreover, telecommunications infrastructure development may be unevenly distributed within countries as well. Unfortunately, the extent and level of infrastructure plays a significant role in determining whether costs are kept at a reasonable level, if not at the lowest level possible. Hence, it is common to find scenarios where making telephone calls *to* someone in a country different from one's own is cheaper than someone in that country making the same call *out*. Similarly, Internet connectivity is re-sold by top-level providers to lower-level providers, allowing those on top to financially benefit from those below at considerable high costs (see Figure 1. Traffic and Payment Flows across the Internet).

Figure 1. Traffic and Payment Flows across the Internet



Source: Peake (2004, 17)

As is illustrated by Figure 1, the regulation of the Internet is also linked to its physical structure, which is under the proprietary and legal control of the United States, although since 1996 the American administration has attempted to reorganise the Internet infrastructure management system. The Internet is based upon a system of root servers which coordinate the information flow on the network and thereby

ensure that all the information sitting on the Internet is available. There are also mirror servers which are updated daily and are replications of the root servers. They help alleviate the heavy traffic of data flow which in the past was solely hosted by root servers. However, original information is stored in the servers controlled by the United States (Pazello 2005, 7–8). In the Tunis Agenda for the Information Society (WSIS Phase Two), governments endorsed the findings of the Task Force on Financial Mechanisms and made proposals for improvements in existing financial mechanisms, which included enhancing regional cooperation and creating multistakeholder partnerships, especially for building regional backbone infrastructure and providing affordable access to ICTs by reducing international Internet costs charged by backbone providers, among others.[13]

In addition to the above, language is a significant issue constraining access, since over 85 percent of online content is in English.[14] Except for Singapore and the Philippines, and to some extent Malaysia and Brunei Darussalam, the other East Asian countries do not use English predominantly. Although Thailand has a signficant volume of online content in Thai, the fact that the society does not use English widely renders it quite segregated from the global exchange of communication and information. Countries that have complicated language scripts, like Cambodia, for example, face an uphill task in ensuring that software applications for day-to-day use in businesses and offices – such as word processing, spreadsheets and database management – are developed and made widely accessible to their citizens.

In the meantime, while populations or segments of societies grow increasingly isolated from global communication and information tools and content, there is a definite increase in urgency in countries like the Republic of Korea, Malaysia, the Philippines, Singapore and Thailand to more actively engage in e-business. Attention, however, has been paid mostly to issues of technology and the application of security standards, without being matched by suitably designed supporting policies and substantive programmes which would encourage women's active participation, ownership and decision-making in such processes.[15]

Accessibility of information per se, on the other hand, unlike access to ICTs, does not directly correlate with a country's Human Development Index. Access to information is a very political issue, and it is problematic to go by the simple assumption that all countries in the subregion equally uphold the values and principles of human rights, gender equality and justice. The political systems within the region are not necessarily democratic, transparent or accountable. Some countries are known to have purchased filtering systems to block access to information available on the Internet. Only a nominal few have made efforts towards being transparent and accountable in the provision and accessibility of information — specifically Japan, Thailand and Hong Kong SAR (China). These countries have some form of freedom of information laws.[16] In Japan, there is the Information Disclosure Law (2001), while in Thailand, there is the Official Information Act of 1997.[17] Hong Kong SAR (China) has a Code on Access to Information.[18] Non-governmental organisations (NGOs) in Malaysia are just beginning to campaign and lobby for Malaysia's Freedom of Information Act.[19] Seen in the above contexts and also taking into account the varying stages of e-readiness[20] of these countries, it becomes difficult to speak about the diversities and complexities of East Asia in general terms. From a gender perspective, too, the distinct experiences of each country take on greater validity.

Scope of Study

Adopting an empowerment framework, this paper attempts to give a brief overview of the ICT context in East Asia by reviewing both available statistical data and selected case studies, to further illustrate how the empowerment approach is indeed critical for achieving gender equality. This study is not exhaustive, since secondary data is usually not available for countries that are less e-ready, and not all countries in East Asia collect and disaggregate data by sex. Even if they do, data collection may not be consistent or regular.[21] Rather, the paper has a special focus on the use of ICTs and its implications for women in the areas of work and governance. Case studies are provided to help further illustrate the issues in analysing the dynamics of gender inequality and women's agency and how these interact at various institutional[22] levels – household, community, state, and market – to empower or (intentionally or unintentionally) disempower women. The case studies particularly highlight questions of identity, control, and ownership. Issues of collective action and institutional transformation are also touched upon, albeit briefly. The case studies illustrate how these issues overlap from one institutional level to another, reflecting how the perpetuation of gender inequality through women's disempowerment is quite systemic. The paper also attempts to link and contextualise the local within the global and gendered context of the information society, and concludes with some broad policy recommendations.

Gender Equality in East Asia

In most existing efforts in gender mainstreaming around the world, gender equality is limited to the misconception of equal numbers of women and men benefiting from a project or programme. This perspective is also the dominant one in East Asia. If at all there are attempts to address gender inequality, women are categorised as a marginalised group and in order to correct the equilibrium, it is arranged that women as beneficiaries, at least in numbers, must at a minimum equal the number of male beneficiaries. This is too simplistic an approach, as it does not critically look at processes of socialisation and the resulting power imbalances and how these gender inequalities have manifested through history and in the present – in disempowerment and impoverishment. It does not take into account distribution of resources and opportunities.

Moving towards gender equality demands an honest examination of how masculinity and femininity become and remain borders and restrictions on people's being and well-being. Addressing gender inequality is difficult because it demands of each individual to look at himself or herself critically and question the values and beliefs he/she has been imbibed with and continues to carry for years. Gender, after all, is a primary field within or by means of which power is articulated (Scott 1991). 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 inequality is implicated at these different levels and must be addressed if equality between men and women is to be achieved. Access to resources refers to both *the right* and *the means* 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 mobilising women to eliminate these gaps. This is why, if gender equality is at all to be achieved, policies, programmes and legislation must be designed from a gender perspective with women's empowerment as the pivotal core. Such policies, programmes, and legislation, though, may only

prove to be successful if pushed from within the institutional framework of the State, guided by human rights principles.[23] If we understand the unbalanced power dynamics that arise from gender inequality in its full context, its implications and the consequence of those implications, it becomes clearer that gender equality cannot be achieved if we do not centre our efforts on empowering women.

Asia, as a whole, is far behind in achieving gender equality. This becomes obvious when we peruse the World Economic Forum's (WEF) report on 'Women's Empowerment: Measuring the Global Gender Gap' (Lopez-Claros and Zahidi 2005)[24] and find that none of the Asian countries surveyed even came close to the top twenty. Of the 58 countries studied by the WEF, six were East Asian countries. These were China (33), Japan (38), Malaysia (40), Thailand (44), Indonesia (46) and Korea (54), with overall scores between 3.18 (Korea) and 4.01 (China), with 7 representing maximum gender equality (Lopez-Claros and Zahidi 2005, 9). Of these, according to the World Bank's national income-level classifications, Japan is a high-income country, Malaysia and Korea are upper middle-income countries and Thailand is a lower middle-income country, while both Indonesia and China are low-income countries. Table 1, below, shows how these countries fare in relation to the five critical areas of economic participation, economic opportunity, political empowerment, educational attainment and health and well-being, as determined and assessed by WEF for the study.

Table 1. The Gender Gap in Selected East Asian Countries

Country	Overall Rank	Overall Score	Economic Participation	Economic Opportunity	Political Empowerment	Educational Attainment	Health and Well-being
China	33	4.01	9	23	40	46	36
Japan	38	3.75	33	52	54	26	3
Malaysia	40	3.7	40	36	51	32	15
Thailand	44	3.61	1	39	49	54	32
Indonesia	46	3.50	29	24	46	53	29
Korea	54	3.18	34	55	56	48	27

Source: Lopez-Claros and Zahidi (2005)

The WEF report shows that overall, Asia as a region ranked second lowest in achieving gender equality, after the Middle East and Africa, and the lowest in the specific critical areas of political empowerment and educational attainment (Lopez-Claros and Zahidi 2005). These are two key areas that have the potential to contribute substantively to addressing women's strategic gender needs. It is not surprising to see Asia ranking a little higher in women's economic participation, as women are well-recognised as a nation's human resource (though most often at a lower level of skills and largely at a lower level of income than men), but lower in women's economic opportunity, which measures the quality of women's economic involvement beyond their mere presence as workers.[25] This indicates that gender equality is not seen as a strategic development priority, and if gender equality is pursued, this is usually for practical purposes of contributing towards national productivity. Even when Asia is the third highest in rank for health and

well-being (as per the WEF report), whether healthcare services are provided from a women's rights-based perspective is suspect. While some may argue that this WEF study is not very comprehensive in showing the true picture of gender equality for Asia,[26] there are other trends that confirm the glum picture painted by the WEF report — that achieving gender equality is still a long way off. These are primarily: 1) the prevalence and pervasiveness of violence against women; 2) the increasing rate of HIV infection among women;[27] and 3) the feminisation of poverty[28] (see Table 2, below, and 3, on p. 19, for snapshots of gender gaps. Table 3 in particular shows how the countries of East Asia rank in terms of their respective Human Development Index, Gender-related Development Index, and Gender Empowerment Measure).

According to Rao and Kelleher (2002), even when there is a political acknowledgment of the importance of addressing gender inequality, efforts get bogged down in technical questions and 'bureaucratic mire'. In Cambodia, for example, putting a gender infrastructure in place – by mainstreaming a gender perspective and analysis within existing policies, programmes, and laws, [29] – is just beginning, as the focus so far has been on developing policies, building capacity, and capturing more resources from the traditional development perspective. In comparison, the Philippines, which has a more established bureaucratic context, has been concentrating more on developing specialised expertise on, for example, gender and economic globalisation and on addressing deep-seated cultural barriers to gender equality within bureaucratic structures. The value of women in the not-so-ideal information society, as in the past, continues to correlate very strongly with their economic value and their reproductive abilities.[30]

Table 2. Some Sex-Disaggregated Data towards Measuring Gender (In) Equality

Country	GNP Per Capita (US$)	Female Population (% of Total)	Life Expectancy at Birth (years) M : F	Adult Illiteracy Rate (% of people aged 15+) M : F	Female Labour Force Participation (% of total labour force)	Female Education Access and Attainment Net Primary School Enrolment Rate : Progression to grade 5	Maternal Mortality Ratio (per 100,000 live births)	HIV Prevalence Rate (% of people aged 15-24) M : F	Female Internet Users as % of Total Internet Users, 2002*
High Income									
Brunei Darussalam	n/a	47.3	74 : 79	5.4 : 11.9	n/a	n/a : 93	37	n/a	n/a
Hong Kong SAR (China)	26,830	50.8	77 : 82	3.1 : 10.8	37	n/a	n/a	0.1 : 0	49
Japan	35,400	51.1	78 : 85	n/a	41	100 : n/a	10	0 : 0	41
Singapore	22,780	48.7	76 : 80	3.8 : 11.7	39	n/a	30	0.2 : 0.2	47

Upper Middle Income									
Republic of Korea	9,010	49.6	70 : 77	0.9 : 3.6	41	99 : 100	20	0 : 0	45
Malaysia	3,390	49.4	70 : 75	8.6 : 16.6	38	97 : 96	41	0.6 : 0.1	36
Lower Middle Income									
Dem. Rep. Korea	n/a	49.8	60 : 63	n/a	43	n/a	67	n/a	n/a
Philippines	1,030	49.6	67 : 71	4.9 : 5.2	38	93 : 83	200	0 : 0.1	41
Thailand	2,010	50.8	67 : 71	2.9 : 6.1	46	85 : 96	44	1.2 : 2.3	49
Low Income									
Cambodia	290	51.3	52 : 55	19.8 : 42.8	52	81 : 70	450	2.4 : 3.5	n/a
China	840	48.4	69 : 72	7.9 : 22.1	45	93 : n/a	56	0.1 : 0	39
Indonesia	570	50.1	64 : 68	8.2 : 18.1	41	91 : 92	230	0 : 0	35
Lao PDR	290	50.1	53 : 55	23.8 : 46.6	n/a	78 : 63	650	0 : 0.1	n/a
Mongolia	390	50.4	64 : 67	1.4 : 1.7	47	92 : n/a	110	n/a	n/a
Myanmar	n/a	50.3	54 : 99	11.1 : 19.5	n/a	83 : 61	360	1 : 1.7	n/a
Timor-Leste	420	n/a	n/a	n/a	45	n/a	660	n/a	n/a
Vietnam	380	50.6	67:72	5.5 : 9.3	49	92 : 88	130	0.3 : 0.1	n/a

Notes:

i. * http://www.itu.int/ITU-D/ict/statistics/at_glance/f_inet.html

ii. n/a = not available

iii. According to the UNDP Human Development Report 2005, maternal mortality ratios are notoriously difficult to measure accurately. Nationally reported data on maternal deaths often suffer from underreporting and misclassification. The UNDP Human Development Report 2005 uses international estimates produced by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) which have been produced separately for 1990, 1995 and 2000. Because of large ranges of uncertainty and lack of comparability due to changes in methodology, these estimates can be used only to indicate the scope of the problem and offer little insight about the trends over time.

Sources:
i. Figures used from the World Bank's Gender Statistics Database are for the year 2000, unless otherwise indicated. Taiwan (China) was not listed in the World Bank's Gender Statistics database.

ii. According to the ITU ICT statistics, female Internet users in Taiwan comprise 44% of total Internet users in 2002.

iii. http://genderstats.worldbank.org/home.asp for all other data.

Table 3. GDI, HDI and GEM Ranks of East Asian Countries

Country	HDI rank	GDI rank	GEM rank
High-Income			
Brunei Darrussalam	33	31 (2001 data)	n/a
Hong Kong SAR (China)	22	22	n/a
Japan	11	14	43
Singapore	25	28 (2001 data)	22
Upper Middle-Income			
Republic of Korea	28	27	59
Malaysia	61	50	51
Lower Middle-Income			
Dem. Rep. Korea	n/a	n/a	n/a
Philippines	84	63	46
Thailand	73	57	63
Low-Income			
Cambodia	130	99	73
China	85	64	n/a
Indonesia	110	87	n/a
Lao PDR	133	102	n/a
Mongolia	114	90	n/a
Myanmar	129	n/a	n/a
Timor-Leste	140	n/a	n/a
Vietnam	108	83	n/a

Notes:

i. n/a = not available

ii. Figures in italics indicate deterioration in rank that country held from the year 2001.

Sources:

i. HDI data is 2003 data. Sourced from UNDP, Human Development Report 2005. Available online at: http://hdr.undp.org/reports/global/2005/.

ii. GDI data is 2003 data, unless otherwise stated. Sourced from UNDP, Human Development Report 2005. Available online at: http://hdr.undp.org/reports/global/2005/. 2001 data sourced from UNDP, Human Development Report 2003, available online at: http://www.undp.org/hdr2003/indicator/indic_196_1_1.html.

iii. GEM data is 2003 data, unless otherwise data. Source from UNDP, Human Development Report 2005. Available online at: http://hdr.undp.org/reports/global/2005/. 2001 data sourced from UNDP, Human Development Report 2003, available online at: http://www.undp.org/hdr2003/indicator/indic_207_1_1.html.

Unpacking Women's Empowerment in East Asia

At the core of the concept of empowerment is the idea of power. The possibility of empowerment depends on two things. First, that power can change and that it is not inherent in positions or people. Second, that power can expand. For many who are in power, they feel that correcting power imbalances means 'giving up' their power. This is not always so. In fact, there is considerable strengthening within any institution — household, community, state and market – when power expands and is distributed more widely. If we aim to empower women, however, there is one prerequisite, as UNIFEM's 'Progress of the World's Women 2002', points out:

> Choices for women, especially poor women, cannot be enlarged without a change in relations between women and men as well as in the ideologies and institutions that preserve and reproduce gender inequality. This does not mean reversing positions, so that men become subordinate and women dominant. Rather, it means negotiating new kinds of relationships that are based not on power over others but on a mutual development of creative human energy (power that is based on power within and power with). It also means negotiating new kinds of institutions, incorporating new norms and rules that support egalitarian and just relations between women and men.

Addressing gender equality therefore requires us to address power dynamics and power imbalances. Empowerment refers to enabling people towards self-determination. Empowerment can be and most often is a process that challenges some of our fundamental assumptions about the way things are and can be. For women, empowerment emphasises the importance of increasing their power and having control over resources, decisions and other issues that shape their lives. In the information society, this is not limited to just physical access to ICTs, but includes having full access to complete information and being free to self-discern the quality and credibility of such information in making these decisions. This is when information becomes knowledge and enables the individual to form her or his own opinion, and to act and transform conditions that would help lead to a better quality of life.[31] While generally knowledge is empowering, for women knowledge alone – without the ability and opportunity to test its validity and apply it usefully – does not empower them.[32] Having said that though, access and control over some kinds of resources are able to bestow, if not some level of empowerment, at least some level of immediate respect to women who gain access to these resources — finance/credit[33] and ICTs.[34] Research has shown, though, that when women's self-help groups are established around these, especially ICTs, these new spaces alone can become quite empowering. This was the experience of some Women's Electronic Network Training (WENT) participants (see case study below). An evaluation of WENT noted that the skills-building was a plus, but what made the training a vibrant and conducive space for women was that they were among like-minded women, who shared the same experiences and issues, and that they had the chance to share their own experiences and issues.

Case Study of the Women's Electronic Network Training (WENT)

WENT began in 1999 as a project-based initiative, jointly managed by the Asia Pacific regional members of the Association for Progressive Communications Women's Networking Support Programme (APC WNSP) and the Asian-Pacific Women's Information Networking Centre (APWINC), Republic of Korea, on behalf of AWORC until 2004[35]. 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 organisations in the region and to enhance their capabilities to use ICTs to advance their social and policy advocacy. The first WENT workshop trained twenty three women from eleven countries in using email and web-based services to promote and enhance their participation in the review process for the Beijing Platform for Action (popularly known as the Beijing Plus Five review). In response to various information and communication needs of women in Asia and the Pacific, WENT then diversified its training. Since 2000, WENT has run 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 organisations in the Asian region by women ICT practitioners, WENT has opened its doors to women and their organisations in the Pacific. Women coming from relatively under-represented countries like Bangladesh, Cambodia, East Timor, Kyrgyzstan, Russia, Lao PDR, and Uzbekistan have also graduated from WENT. By 2003, women from 23 countries have been trained under WENT's methodology. Since then, WENT has been successfully replicated in Africa and nationally in Korea (1999), the Philippines (2002), Malaysia (2002) and India (2003). WENT was echoed in the Pacific by the Pacific Women's Bureau of the Secretariat of the South Pacific Community (SPC) in March 2005.

The experience of WENT tells 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 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 were no longer alone, no longer isolated. On the other end of the scale, participants learned about what exactly lies behind the technology, demystifying it for themselves. Women who participated understood the technology, and they could determine which technology would be most suitable, and make choices and propose solutions. Some participants, depending on the organisation they were coming from and how they were placed in the management hierarchy, were given the freedom to decide on how the organisation's technological needs would be met. In the

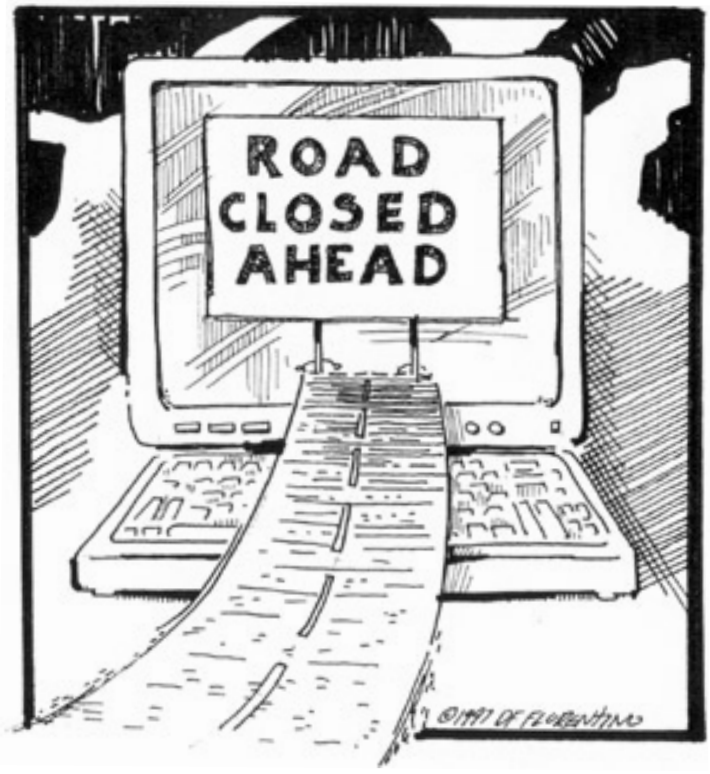
> case of others, their additional knowledge was not put to optimum use as they were in no position to challenge the status quo. This reality is echoed in the research conducted by AWORC in the year 2000, and documented in 'I on the Mouse'. By only emphasising 'access' to ICTs as the key factor to consider in women's empowerment through ICTs, there is a danger that issues of power and marginalisation within organisations, including women's organisations, may go unacknowledged.
>
> What should be mentioned here, too, is that one of the key pivotal and influential factors that enabled WENT to be as successfully implemented was the encouraging role of the President of Sookmyung Women's University in the Republic of Korea. President Dr. Kyungsook Lee is known for her forward-looking strategies and is much respected for the work that she has managed to carry out for the advancement of Sookmyung Women's University. When WENT was first organised in 1999, it was on university grounds that had wireless Internet access. Women could sit under a tree and go online. Even though participants had little access to such forward-looking infrastructure in their own countries at the time, being in such a technology-abled women-centred environment gave them an insight into possibilities. The example of Dr. Kyungsook Lee embodies what can happen if women have decision-making authority and control over ICTs — enabling not only the application of ICTs but also insights into the possibilities and potentials of ICTs.
>
> *Source:* Kuga Thas et al. (2007)

The individual and collective experiences of WENT participants during the training and after, show that to empower women requires each of us to understand and address the various dynamics of power and relationships in a particular society, which are intertwined with issues of gender, class, ethnicity, age, sexuality, culture and history. It is these dynamics that greatly influence and can adversely impact upon women's individual and collective agency. Ann Ferguson, in her paper, 'Can Development Create Empowerment and Women's Liberation?' concludes that:

> Individuals and groups divided by gender, race, ethnicity, class, sexuality and nationality can only be empowered by a participatory democratic culture which strives for solidarity in a coalition of oppressed groups, while working out a democratic procedure to negotiate possible conflicts of interests among its members as one of the ends of a developmental process towards social justice. (Ferguson 2004)

She, however, stresses that 'without a multi-system analysis of social dominations, women may be empowered as individuals in relation to particular men, but still disempowered in relation to other relevant hegemonic forces, such as racism, capitalism and imperialism' and so 'the situation of women from a privileged class and privileged race may be improved, but the bulk of women will simply be controlled in the interests of dominant groups' (Ferguson 2004). So, the question that faces us is: where are women in the information society, if there are roadblocks to information and knowledge such as illustrated in Figure 2?

Figure 2. Information Society: an Exclusive Club



Source: http://www.vermontguardian.com/global/0904/BlockingTheNet.shtml

Hopefully, the case studies in the following sections will provide at least a snapshot of where women are.

In East Asia, women's empowerment through governmental interventions has largely been pursued to meet functional development objectives which are very closely linked to women's traditional gendered roles and responsibilities.[36] These serve the lowest levels of empowerment (including zero level when a purely welfaristic approach is used) where policy and programme benefits are 'given' to women beneficiaries as and when deemed appropriate, rather than designed to bring about an internalisation of power within them so as to enable them to arrive at a higher consciousness and to stimulate the will to mobilise and take control. An example of this is the 'T-Center for Teleworking and Telecommuting', which was designed to guide 200 participants, mainly women and youths, to learn and acquire teleworking skills and to enable them to adopt teleworking as a new mode of work. This was a project supported by Malaysia's Demonstrator Application Grant Scheme (DAGS) and one of the project's specific objectives was to 'empower' women, youth and pensioners to become important economic factors in the family, community and the nation. Because of such conceptually flawed design trends, women have benefited from policies and programmes more often as members of the family and the larger community – sometimes as pregnant women and mothers, but most often as potential members of the nation's workforce. Table 4 (see p. 24) gives some examples of government-initiated ICT-based programmes and projects that have been undertaken, which have women as beneficiaries.[37]

Table 4. Some Examples of ICT-based Government-led Programmes and Projects in East Asia

Govt Agency, Country	Programme/ Project	Year	Beneficiary Group	Overall Aim
SIGMA, Mimos Berhad, Malaysia	Demonstrator Application Grant Scheme (DAGS)	1998 to current	Communities in general, women are included as part of the larger community.	A platform to build human capacity and capability through ICT applications.
Ministry of Information and Communication, South Korea	One Million Housewives	2001–2002	Housewives/ home-makers	One million housewives trained in computer and Internet use
Ministry of Labour, South Korea			Unemployed women, especially those who are heads of households	Computer training for unemployed women
Ministry of Education and Human Resource Development, South Korea			Girl students	Enhance ICT skills of girl students from elementary through high school
Ministry of Gender Equality, South Korea	Programmes at 12 Korean universities		Female university students	Women who want to work in an e-business or to start Small Office-Home Office (SOHO) businesses
Ministry of Agriculture and Forestry, South Korea	Onsite and mobile computer education and technical support services.		Women farmers	Real-time information on market prices is posted on the web. The web site also operates a shopping mall for agricultural products. Technical assistance is available to farmers in building personal web sites.
South Korea	The Kyonggi Province Program for women IT professionals (http://www.womenspro.org) provides training in business incubation and capacity building (including gender 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	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.

In order to better measure the achievement of gender equality, we need to consider qualitative indicators just as much as we do quantitative ones. We need to, in particular, allocate resources towards measuring opportunity costs and replacement cost borne by women, specifically indicators that measure change in traditionally accepted roles and responsibilities and changes in power. Table 5 suggests some examples of indicators.

Table 5. Suggestions for Indicators to Measure Women's Empowerment

Traditional Indicator	Reflections on Indicator	Proposed Indicator
Length of time women spend on the computer/Internet	This is not a suitable indicator as it does not take into account issues of connectivity and download time.	Who does the work the woman would usually do during this time spent online? Is it another woman? Her daughter? Her son? Or her husband? If it is her daughter who does the work in her absence, there is no shift in gendered roles and responsibilities. It shows that there is no real support from the male members of the family, and so no change in power. Does she still have to complete her work duties after she leaves the computer/Internet i.e. her usual duties are put on hold till then? What does she give up in order to be there in front of the computer? Work, rest time or pleasure?
Number of computers within a household/number of households with a computer (note: this also applies to similar indicators in relation to number of radios, television sets within each household)	This does not tell us who within the household uses the computer, how this particular resource is distributed.	Who owns the computer (with ownership to mean who decides who can use it and when and how, and so not necessarily the original purchaser)? Who uses the computer? Where exactly is the computer located? In the son's room? Daughter's room? Mother's study?
Number of women trained in ICT skills	This does not tell us the extent to which skills are actually acquired and put into practice.	Are women able to display these new skills independently without further support? Were better jobs obtained as a result of acquiring these new skills? Are these women involved in making decisions around technology/ICT use? Do these women continue to stay in the workforce? If they choose to opt out, what are their reasons: to meet practical, or strategic gender needs?

Traditional Indicator	Reflections on Indicator	Proposed Indicator
Number of women teleworking and/or telecommuting	This does not tell us if there is adequate support provided by the family at the household level in terms of balancing responsibilities.	Are women still the caregivers and doing the cooking and other household responsibilities? Is a domestic helper hired even though the woman is working from home? Number of househusbands who consciously choose to become househusbands (and not because they are jobless or underemployed).
Number of women in politics/ women in parliament	This is a useful indicator for achieving critical mass. However, while women are encouraged to enter politics, we have to remember that it is a field which is strongly gendered in its culture, and this gendered culture is even more prominent if we examine the sectors more closely. Women politicians are very seldom given the portfolio of science and technology. And even if they were, the additional challenge is that women themselves are imbibed with traditional notions of gender roles and responsibilities, and so may not necessarily be the best champions for women's rights and empowerment unless they are successfully sensitised to the issues and supported institutionally and with adequate resources.	Policies, programmes and laws that in practice challenge traditional notions of gender roles and responsibilities: e.g. equal citizenship rights irrespective of marital status, ethnicity lineage (is ethnicity only from the patriarchal lineage?), equal custodial rights, equal land/property rights, etc. Number of male politicians who champion women's rights with concrete results that materialise in the smooth implementation of women's rights-based policies and programmes. Number of religious authorities who champion women's rights and empowerment towards gender equality.

Women's Agency and the Dimensions of Power

ICTs are increasingly individualising the spaces of information exchange and communication. For women, however, access to these individualised spaces is dependent on their current social, political and economic status, and the extent to which these prevent them from challenging existing institutions.

According to Rao and Kelleher (2002), women are prevented from challenging institutions by four interrelated factors:

- *Political access:* While there is a push towards women's political representation in government, there exist neither systems nor powerful actors who can bring women's perspectives and interests to the table. The field of ICTs is dominated by men, both as developers and as decision-makers. Ministries and divisions for women's affairs and other similar agencies have been slow to understand the relevance and importance for them to be more involved in the formulation of national ICT policies and programmes. One exception may be South Korea, which has a Ministry of Gender Equality and inter-linkages with other ministries that have resulted in a variety of ICT-related programmes (see Table 4).

- *Accountability systems:* How resources are utilised to achieve positive development outcomes is still very much steered by quantitative targets, which from year to year or plan to plan are replaced with a new set of equally quantitative targets, without any consideration for qualitative ones. These are often distantly related to institutional change for gender equality. A typical example is the number of women trained in ICTs vis-à-vis that of men, without looking at level of technical skills imparted nor how these technical skills are used and how having such skills confers 'power' and increased levels of respect to women in the household, the work place and beyond. Singapore, however, has moved beyond this minimal step of 'equal numbers equals gender equality'. Women's representation in ICTs is strong in Singapore because of the government's concerted state-directed ICT training: 58 percent of analyst programmers and 52 percent of analyst designers in as early as 1987 were women (Dholakia et al. 2003). Women educated in such fields are likely to have the skills and propensity to adopt modern ICTs. Women's enrollments in such disciplines would have doubly greater social benefits since women trained in ICTs are likely to be the future designers and incorporate features that are likely to favour women's adoption. But the emphasis on building up women's capacities in the area of ICTs must be accompanied by new ways of imparting ICT type of education while considering issues of intention and power dynamics as earlier described (Dholakia et al. 2003). Most countries build up the ICT capacities of women because they are a source of cheaper labour, and are quite satisfied with only providing them training to acquire lower level ICT technical skills. This is because women are seen as practical solutions from the narrow development perspective, rather than self-determining agents of change.

- *Cultural systems:* Women are sometimes obstructed from becoming full participants in programmes that can benefit them due to either clear and vocal objections from family or due to lack of support from family, their community and their work place. Typical examples are seen when women try to participate in community telecentre activities. The establishment of community telecentres is sometimes assumed to impact and serve women and men equally. In the planning and design of telecentres and their services, usually little consideration is given to women's heavy workloads and multiple roles that limit their available time to use the telecentre. Male attitudes within the telecentres towards women's use of technology can also severely affect women's self-esteem and discourage more active participation. Other factors like 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 telecentres. Some women tend to resort to sending their daughters rather than themselves for training, with the belief that 'it's too late for them' and that their daughters might stand a better chance of finding a good job and pulling themselves out of poverty after getting some ICT-based training. On a parallel note, 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 successful ICT distribution (extent of usage) or penetration is extremely misleading. Likewise, if households have computers but women are only allowed to clean them, then the number of computers per household brings no meaning for gender equality. In order to avoid the collection of misleading data, such as where a woman purchases a computer only for her son's use, the best indicator would be to see the distribution of resources within the household, e.g. the number of computers vs. who uses them.

- *Cognitive structures:* Where women's work is concerned, this is often seen only within existing gender-biased norms and understandings. For example, the belief that 'women are good at detailed, nitty-gritty repetitive work because their hands are small and dainty' means they are largely employed to handle microelectronic chips and to work in electronic assembly lines. Or the belief that 'women don't have a head for technology' leads to computers and technical toys being primarily bought for boys rather than girls.

Having discussed briefly these factors and how they can prevent women from being empowered and from challenging institutions that perpetuate gender inequalities, we can now turn to examining how ICTs have affected women in the area of work and governance.

ICTs, Women and Work

ICTs have changed the terrain of many fields. One such field that stands out for women in East Asia is the area of work and employment and so affects women as labour (whether they are paid, underpaid or unpaid). To understand the implications of ICTs for women and work, the first question we need to ask is: where do women work?

The case of e-Homemakers in Malaysia speaks of women who have made the choice to work from home in order to balance their household responsibilities, and hence, practical gender needs.

Case Study of e-Homemakers, Malaysia

A project that was funded under the DAGS scheme is the e-Homemakers project, the only trilingual local portal that promotes the concept of working from home by providing resources and a platform for homemakers and homeworkers to tele-trade and tele-exchange. A WENT (Women's Electronic Networking Training) Award[38] winner in 2003 and a Gender and ICT Award winner[39] in 2005, this project provides basic ICT skills training to disadvantaged and special women to enable them to participate effectively

in the knowledge-based economy. The project prepares them to work at home through other soft skills trainings and empowerment exercises.

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 is one group whose work since 1998 is aimed to support women who choose or want to work from home to balance their gender roles and responsibilities,[40] and is currently working in tandem with a similar policy thrust and emphasis of Malaysia's Ministry of Women, Family and Community Development.[41] The growing interest in teleworking for women in Malaysia, though, is also motivated by the fact that women's labour force participation is low. 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. The study found that introducing ICTs in the home as an alternative work solution, without addressing the gender-power dynamics within households, leaves the burden of negotiating these usually conflicting intricacies on women who are often already in a disempowered position. Hence, an indicator of the number of women teleworking may not provide an accurate picture of closing the gender inequality gap compared to, say, the number of househusbands – data which governments have not thought about collecting.[42]

Source: Kuga Thas et al. (2007)

The e-Homemakers, Malaysia, case study reminds us that the family can be a constant arena of contestations of power. In the household, power is exercised through a complex fabric of social interaction that is more often than not rooted in existing gender inequalities. The family is seldom a venue for distribution of resources that is either equal or equitable. However, many policies and programmes are centred on the family, identifying potential beneficiaries by comparing size vs. total household income, without giving due attention to what are the prevailing gender-biased norms in the distribution of household resources.

Outside of the household, the introduction of ICTs in the market has, in effect, often intensified the vulnerability and temporariness of women's employment (self-employed or otherwise). In the 1990s, during the wave of industrialisation and manufacturing in East Asia, women were only able to secure employment during rapid expansions, and most times, under harsh conditions.[43] It is very likely that there will be a similar scenario for women in ICT-related fields, particularly if these are very much dependent on foreign capital investments since these have proven to be volatile when the economy is unstable or in recession (either at the global level or in the home country or host country). Foreign capital-based growth has also very often compromised on progressive labour regulations since host countries give up the little power they have to enforce these in exchange for the injection of capital and the promise of jobs.

The employability status of many women has definitely weakened considerably as women who have lost manufacturing jobs find themselves generally not qualified or unskilled to enter into the new service

industry. Only women who have been able to avail of ICT skills training are able to move up in the new information economy, and this upward mobility is also dependent on whether they can understand and speak English. Most of these women are also younger, as it is the younger generation that is growing up with ICTs more than their parents, and to this fact is added pressure for young women, especially of disadvantaged classes, who grow up with little exposure to ICTs. 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 they are often expected to handle emergency calls which get redirected to these call centres outside of the country concerned.[44]

The increased opportunities for ICT-related work are no doubt welcomed in the South, irrespective of whether there are sufficient labour laws protecting labour rights of workers or if there are sufficient opportunities for labour organising. The outsourcing of work and increasing trends of teleworking and telecommuting have no doubt placed women into more individualised work spaces, but such work spaces may also provide smaller opportunities for collective action at the local and national levels. Women who are privileged to be networked to groups like e-Homemakers may be able to engage to a certain extent at the policy level, but may find that they lack the collective muscle to ensure implementation and enforcement on the ground.

Globalisation has no doubt facilitated greater opportunities for labour in developing countries but in a paradoxical manner, with higher educated labourers doing more menial type work. Globalisation has also facilitated opportunities for local producers and entrepreneurs to reach international markets, but even among these the gains are concentrated in the hands of those with higher education and/or who own resources and have access to capital, which a lot of women entrepreneurs do not. Women entrepreneurs are primarily necessity-based entrepreneurs and they are largely represented by small and medium-sized enterprises. For women-owned businesses, it may be difficult to handle the pressure to be IT-savvy and literate and to invest in technology that requires a much higher capital outlay, which many women entrepreneurs can ill-afford since many women-owned businesses are either small or medium-scale. The issue of upward mobility not only affects women as workers but also affects women as employers/ entrepreneurs.

Along with the increasing lack of employment security and labour rights protection with the increasing trends of outsourcing work, wages earned, too, remain an issue. Worldwide, outside of the agricultural sector, in both developed and developing countries, women are still averaging slightly less than 78 percent of the wages given to men for the same work, a gap which refuses to close in even the most developed countries. Figures of women's earnings for every US$1 earned by men, in both the industrial and services and manufacturing sectors, are almost identical, and range from a low of US$0.53 in Azerbaijan to US$0.90 in Australia, but with very poor correlation between developed and developing countries (UNIFEM 2000, quoted in Lopez-Claros and Zahidi 2005).

ICTs, Women and Governance

As citizens, women have varying levels of rights, depending on the constitution of each country as well as the laws that have been put in place,[45] but largely more dependent on existing practices and the values

assigned to these practices in governance. It is within the constitutional and legal framework that women can become politically empowered, seeking equitable representation in decision-making structures, both formal and informal, and having a strong, influential voice in the formulation of policies affecting their societies. Unfortunately, as stated in UNIFEM's 'Progress of the World's Women 2002',

> Although there were definite signs of progress in all regions between 2000 and 2002 towards meeting the target (of increasing women's political participation), Progress 2002 indicates that women are still on the whole largely absent from parliaments. They account for about 14 per cent of members in 2002 overall. Only 11 countries had reached the 30 per cent benchmark in 2002 – Sweden, Denmark, Germany, Finland, Norway, Iceland, the Netherlands, South Africa, Costa Rica, Argentina and Mozambique. All of these countries have used quotas.

UNIFEM's 'Progress of the World's Women 2002' describes a global scenario of women's political participation where all of Asia figures poorly, let alone East Asia. Statistics from Progress 2002 show that correlation between a country's development status and women's political representation is weak.[46] Even when there is women's political representation, those who were elected are not necessarily familiar with the issues faced by women in ICT-related areas, nor with how ICTs can, in particular, further exacerbate gender inequality if planning and implementation is gender blind. For example, in Malaysia, the Ministry of Women, Family, and Community Development attempts to address women's needs and concerns very much within the 'family' and 'community' framework. Its linkages with the Ministry of Energy, Communications and Multimedia are very weak. Nor does the Ministry of Women, Family and Community Development have strong links with the e-Business Department of the Multimedia Development Corporation (MDC) for issues faced by women-owned SMEs. If ICT-type of projects are adopted, their selection is based on how they complement and support women in meeting their traditional roles and responsibilities and practical gender needs.

With the growing proliferation of ICTs, a number of governments in East Asia are keen to be e-savvy and e-equipped. However, these efforts centre more on the delivery of government services to the public using electronic means. This is known as e-government. E-governance, although much talked about in the region, is very different from the concept of e-government. E-governance not only covers the implementation of various programmes that apply ICT in delivering government services; the more critical aspect is in the promotion of transparency and accountability. E-governance, therefore, is the transformation of governance processes resulting from the continual and exponential introduction into society of more advanced digital technologies. E-governance should strongly focus 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 the achievement of gender equality. It can potentially bring forth new concepts of citizenship, both in terms of needs and responsibilities.[47] For many governments in East Asia however, allowing e-governance to make it possible for their citizens (and non-citizens) to truly communicate with government, participate in policy-making and strengthen democratic processes remains a huge challenge. There are three main

barriers to e-governance, none of which are given serious consideration in e-government discourse, including at the WSIS. These are:

1) The serious gaps in universal access to ICT as a means of participation;

2) The complete absence of gender equality considerations in e-governance plans of governments and;

3) The restrictions on civil liberties and freedom of expression imposed by undemocratic and fundamentalist states that seriously put into question citizens' access to information and participation in political processes.

In truth, even where there are constitutional guarantees for women's rights and non-discrimination based on gender, 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 denial of women's rights has traditionally not been seen as discrimination. The following four case studies exemplify the issues described above.

The case study of the Philippine government's Government Information System Plan (GISP) below shows how ICTs are still considered an area devoid of gender implications. ICTs are deemed to have the same and equal impact on members of the community, whether they are men or women, young or old, fully body-abled or not.

Case Study of the Philippines' e-Governance

In July 2000, the Philippine government adopted the Government Information System Plan (GISP) as the country's master plan for reforming governance through ICTs. The GISP sets the enabling policy, institutional infrastructure and environment, direction, priorities and benchmarks for computerisation of key government operations and activities over the next five to ten 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 on 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 in 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 formidable 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 having Internet connection. While teledensity is higher at 9.05 per 100 persons, 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 SMS or text messages as a source of information. While sex-disaggregated data is almost impossible to find, general access information indicates that women's access to the Internet is marginal, concentrated in the main urban centres and skewed towards the educated and the middle as well as upper classes.

Notes:

* 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: Ramilo (2002)

Why does the question 'What does gender have to do with ICT or with e-governance projects?' still persist? The Philippine case study above shows exactly how gender is still considered an issue apart from other issues. Gender equality as an issue has not been mainstreamed at all, despite the rhetoric. Cross-sectoral cooperation on gender equality issues is negligible if it at all exists. This facilitates a policy environment that can work against or negate any positive effects from gender equality measures that are initiated by women's affairs committees, divisions and ministries, assuming they are well-designed. How, then, can gender equality concerns and women's empowerment issues manifest in these governance structures if the attitude is going to be that gender equality has no place in science and technology, and worse, in governance, when half of a country's citizens are women?

We have noted from the Philippine case study that for e-governance to be effective, the distribution of ICT infrastructure is critical. In terms of ICT infrastructure, the liberalisation of the telecommunications sector has generally helped nations and their peoples to get connected at lower costs. However, before ICT infrastructure can even permeate rural areas at levels comparable to those in urban areas, states are already beginning to exercise their muscles in controlling 'who gets what information, who does what with that information, and who decides'. For example, from 2004 to 2005, Malaysia has seen an increase in the number of attacks made on Internet users, despite assurances by the former Prime Minister, Tun Dr. Mahathir Mohamad, that the Internet would not be censored. This was encoded in law under the

Communications and Multimedia Act 1998, which covers both the Internet and broadcast media. Three bloggers were threatened with prosecution under the Sedition Act 1948 (Amended 1971), which allows for a fine of up to RM5000 (or US$1351) and up to three years in prison for a first offence. All three bloggers were 'hauled up' based on comments about religion.[48] Three case studies below further illustrate this growing threat.

Case Study of China's Internet Filtering

China's Internet filtering regime is the most sophisticated effort of its kind in the world. Compared to similar efforts in other states, China's filtering regime is pervasive, sophisticated and effective. It comprises multiple levels of legal regulation and technical control. It involves numerous state agencies and thousands of public and private personnel. It censors content transmitted through multiple methods, including web pages, web logs ('blogs'), online discussion fora, university bulletin board systems and email messages. Testing by the OpenNet Initiative (ONI) - a collaborative partnership between the University of Toronto, Harvard University and the University of Cambridge - found efforts to prevent access to a wide range of sensitive materials, from pornography to religious material to political dissent. Chinese citizens seeking access to web sites containing content related to Taiwanese and Tibetan independence, Falun Gong, the Dalai Lama, the Tiananmen Square incident, opposition political parties or a variety of anti-communist movements will frequently find themselves blocked. While it is difficult to describe this widespread filtering with precision, ONI's research documents a system that imposes strong controls on citizens' ability to view Internet content.

Unlike the filtering systems in many other countries, China's filtering regime appears to be carried out at various control points and also to be dynamic, changing along a variety of axes over time. This combination of factors leads to a great deal of speculation as to how and why China filters the Internet. These complexities also make it very difficult to render a clear and accurate picture of Internet filtering in China at any given moment. Filtering takes place primarily at the backbone level of China's network, though individual Internet service providers also implement their own blocking. ONI's research confirmed claims that major Chinese search engines filter content by keyword and remove certain search results from their lists. Similarly, major Chinese blog service providers either prevent posts with certain keywords or edit the posts to remove them. ONI also found that some keyword searches were blocked by China's gateway filtering and not the search engines themselves. Cybercafés, which provide an important source of access to the Internet for many Chinese, are required by law to track Internet usage by customers and to keep correlated information on file for sixty days. As a further indication of the complexity of China's filtering regime, ONI found several instances where particular web pages were blocked but the domain was accessible, despite the fact that the source of content appeared consistent across the domain - suggesting that filtering may be conducted at a finer level in China than in other countries that ONI has studied closely.

Moreover, China's Internet filtering appears to have grown more refined, sophisticated, and targeted during the years of ONI's testing.

China's intricate technical filtering regime is buttressed by an equally complex series of laws and regulations that control the access to and publication of material online. While no single statute specifically describes the manner in which the state will carry out its filtering regime, a broad range of laws - including media regulation, protections of 'state secrets' controls on Internet service providers and Internet content providers, laws specific to cybercafés and so forth - provides a patchwork series of rationales and, in sum, massive legal support for filtering by the state. The rights afforded to citizens as protection against filtering and surveillance, such as a limited privacy right in the Chinese Constitution, which otherwise might provide a counter-balance against state action on filtering and surveillance, are not clearly stated and appear to be considered by the state to be inapplicable in this context.

Source: ONI website, www.opennetinitiative.net/studies/china/

Email and online discussion fora are the main means by which women are known to communicate over the Internet once they have some basic ICT skills. The 'I on the Mouse' report, which documented the findings of research carried out in Asia and the Pacific on the use of ICTs for women's advocacies and networking in 2000, shows that the dominant use of ICTs by women's groups is in the area of email, used primarily for the dissemination of information (Shivdas 2001). Surveillance and filtering carried out by governments on Internet activities can severely affect the online spaces that women and women's groups have managed to use for mobilising around women's rights and gender equality issues.

It is not just access to ICTs and information per se that are critical. The two case studies below show how information can be withheld and manipulated; hence, who controls the medium through which information is disseminated is equally important. Both the case studies below highlight the need for the plurality of media in all nations, and for an independent media.

Case Study of Broga, Malaysia

When withheld, the lack of information alone can have a devastating effect, with the ability to disempower and further impoverish people. This is a pending case for citizens in Broga, a small, unheard of town near Kajang, which was home to about 300 families and an *Orang Asli* (indigenous people) village in Malaysia.

The citizens of Broga are mainly Malaysian-Chinese, Mandarin-speaking vegetable farmers, with basic literacy levels and very little command of English. When the decision was taken to shift a 1500 tonne capacity incinerator to Broga, no information was shared with the community in Broga of the health dangers that the incinerator would pose. Although Broga is comparatively less populated, it is a hilly, forested zone with a water catchment area supplying drinking water to over 333 residential housing estates of about two million people, and clearly the decision to shift the incinerator to Broga -

'an environmentally sensitive area' - broke all national environmental regulations. However, one woman in Broga, Alice Lee, who had very little understanding of English and was better versed in the Malay language, but more so in Mandarin, took the lead in obtaining through the Internet the information that she and her farming family needed on the Ebara Corporation, the company which held the contract to design and construct the gasification-type incinerator in Malaysia, which disturbingly is still in a pilot stage in Japan and that, too, in much smaller capacities. Alice networked and gained support of the nearby communities in Semenyih and of lawyers for legal aid. Her efforts are bearing fruits today, as the issue is no longer one that concerns only the poor Malaysian Chinese farming community in Broga but has become an issue that concerns all Malaysian races within and around that area. The Prime Minister's Office has now asked the housing and local government ministry to clarify certain points raised in a memorandum submitted by Kampung Broga residents demanding that the 1500 tonne incinerator plant project nearby be permanently scrapped (Theophilus 2005).[49]

Broga in Malaysia is an example of how the private sector seeks markets at the expense of the poor. It is also an example of how the lack of media freedom and lack of diversity of media ownership impacts what and how information is presented.[50] This is the impoverishing reality of globalisation. In this particular case, Japanese companies, with backing from their government,[51] were seeking new markets outside of Japan for their incinerators,[52] deceivingly selling them as 'sustainable' and 'environment-friendly' solutions for handling waste. If it had not been for their ability to access information through the Internet and analyse it in their contextual situation, the citizens of Broga in Malaysia would probably have been doomed to further impoverishment at the expense of their livelihood, potential income, health and social inclusion.

Since the completion of a 25-minute documentary entitled 'Clean Shit' (now renamed 'Alice Lives Here'),[53] the hearing of the suit has been adjourned once more. Alice Lee's *locus standi* to represent the people of Broga has been disputed. She is not a land owner, although a resident of Broga. Their interim stop-work order has also expired and work on the project has been revived. Recently, the Land Office has aggressively begun the process of acquiring people's land for the project. A total of sixty eight land owners, including Alice's mum, have been directly affected.

Source: Kuga Thas (2005)

The case study of Broga shows that while English can be a barrier, it is not necessarily a barrier that women cannot overcome if their rights are being threatened. Alice's ability to seek out information over the Internet on the Japanese corporation is a case in point. However, her rights and the rights of the community who live in Broga are threatened by political and profit-making interests. Having access to ICTs is insufficient in empowering women if support - legal, financial and political - is not provided to women.

Case Study of Supinya Klangnarong, Thailand

Supinya Klangnarong, a WACC scholar, journalist, and freedom of speech and media reform campaigner, is a 32-year old woman who made the mistake of publicly noting in an interview published in the Thai Post that Shin Corp, a Thai media and telecommunications company, had experienced a three-fold rise in profits between 2001 and 2002, since Prime Minister Thaksin Shinawatra had come to power. She had on this basis questioned the relationships between politics and commercial interests. Supinya asserted that the information she used in her statement was, in fact, based on the firm's own press releases. Therefore, what she did was constitutional and in the public interest. Shin Corp was founded by Prime Minister Thaksin Shinawatra and was owned by his family until it was sold to a Singaporean company in February 2006. Supinya was made to face a US$10 million (400 millions Baht) libel suit filed by Shin Corp. Shin lawyers offered to withdraw the suit if Supinya apologised for her comments, but she turned down the offer and called on the company to acknowledge the public's right to scrutinise its activities. Supinya and the Thai Post were acquitted of libel on 15 March 2006.

Source: WACC website, http://www.wacc.org.uk

The case study above of Supinya Klangnarong is a clear case of media ownership and control. What does it say if a young woman cannot question issues surrounding accountability and transparency of her government? What does it say if a US$10 million libel suit can be filed against an individual young woman when all she asks for is transparency and accountability of her government's transactions? How can governments remain accountable to their citizens if the citizens do not know or are not allowed to know what their governments are doing?

While the three case studies above are about access to information, they provide three very different scenarios; yet all three have power as a central theme. The first is where the public may never know that their private emails and online activities are under surveillance or being filtered; hence empowerment through use of information, if it happens at all within such a controlled environment, happens almost in an indoctrinated manner - 'empowered' only by the information that one is 'allowed to have', without any recognition of the individual's right to self-determination and integrity. In this particular case study, the people had access to ICTs and information, but they were not the decision-makers on the suitability of the information they were allowed to access. The appropriateness of the information was decided for them by the authorities concerned. The second is where information is purposely kept from the people and manipulated, yet empowerment takes place because 'the truth' is found through access to ICTs and other information channels (e.g. networking, word-of-mouth, etc.) and as a result, small spaces conducive for the claiming of rights had opened up. The third shows the need for plurality of media ownership and control to allow a more conducive atmosphere for transparency of information, as well as a political and legal environment that supports empowering use of information for enforcing accountability. Globally, there is a growing concentration of media in the hands of less than ten corporations, and while there is an increased presence of women in media, particularly as journalists, women are still a long way from achieving equality with men in the newsroom (Toro 2005). This has affected how women are portrayed and how women's concerns are not prioritised in media.

The case studies above further exemplify how the provision of ICTs alone is insufficient for women's empowerment if such access remains unaccompanied by an enabling political, legal, economic and sociocultural environment. ICT interventions for women need to be informed by empowerment and not only by instrumentalist perspectives. This does not mean to say that access to ICTs cannot empower women. It certainly can, but the whole process of ensuring access has to be closely linked to increasing women's ability to use ICTs as they deem fit. This is the first level of empowerment that women can have according to Sara Longwe (1995).[54] Access as defined by Longwe is when women improve their own status, relative to men's, through their own work and organisation, arising from increased access to resources. For example, women farmers may improve their production and general welfare by increased access to water, to land, to the market, to skills training or to information. But were they 'given' information considered appropriate by 'higher authorities'? Or did they increase their own access? If the latter, then this suggests the beginning of a process of conscientisation - of recognising and analysing their own problems, and taking action to solve them. This is clearly illustrated in the second case study, on Broga.

Making the Links for Women's Empowerment in the Information Society from Local to Global

The changing circumstances around the evolution of the global information society are best understood in terms of the politics of trade and the decreasing sovereignty of developing countries in the global political and socio-economic context. Even though there are a number of internationally agreed documents that promote women's rights and gender equality (in particular, the Beijing Platform for Action of the Fourth World Conference on Women in Beijing and the Convention on the Elimination of All forms of Discrimination Against Women), these commitments remain largely only on paper, as governments in developing countries find themselves further disempowered to negotiate better terms and conditions surrounding trade. Experience has shown that signed bilateral Free Trade Agreements (FTAs) between the USA (and/or developed countries), on the one hand, and developing countries, on the other, have undermined the ability of developing countries to pull themselves out of poverty and have, in fact, further impoverished them. Significant and profound impacts have resulted in a lack of food security, loss of employment and job security, the obliteration of access to and ability to develop generic drugs and therefore the inability to ensure cheaper access to healthcare, a weakened resilience of the domestic industry and service providers, the decreased viability of small farms and firms, and the list goes on. For women and the poor, FTAs by their governments with the USA and/or developed countries can mean, among other things:

1) The inability to use open source and free software due to software patents;

2) The inability to develop local content without high costs; and

3) The inability to ensure transfer of technology and technical know-how.[55]

In short, bilateral FTAs facilitate a neocolonisation of countries that is subtle but can be equally discriminatory and violent in its outcomes. All of the above 'inabilities' will have significant negative impact on the application of ICTs for development - the key thrust of the WSIS. However, the WSIS did not address these issues, since the WSIS was about the 'information society' and not about trade.[56]

Instead, Phase One of the WSIS encouraged and tried to support a multistakeholder approach that included the private sector and civil society in discussing issues surrounding the global conceptual framework of the information society. Dominating the discussions were 'the digital divide' and issues of infrastructure and access to ICTs. In the negotiations towards the final documents, the main country to be vocally supportive of women's empowerment and gender equality issues was Canada. During the regional preparatory phase leading up to the Phase One Summit in Geneva, the Philippines was the country that women's rights advocates relied upon. Other East Asian countries were relatively silent on issues surrounding women's empowerment and gender equality, citing that there were already international consensus documents for that purpose.

Even though the first Human Development Report, in 1990, put people back at the centre of development, during the first phase of WSIS in 2003 and during subsequent follow-up discussions and meetings between governments and the private sector in particular, the market has again been relied upon as the only feasible solution to sustaining development (not to be equated with any notion of 'sustainable' development). The role of the private sector, where the big players are the transnational corporations, has not shifted to one that upholds social responsibility in promoting and encouraging the development of 'a more equitable' information society'. One example that illustrates this absence of a substantive social role by the private sector in a country is Myanmar (Burma). When launching its report on Internet filtering in Myanmar entitled 'Internet Filtering in Burma in 2005' (http://www.opennetinitiative.net/burma/), ONI provided a press release (dated 12 October 2005) which stated:

> Burma's system of Internet controls places the country among the world's most restrictive Internet regimes, and it appears to offer the clearest example yet of a Western company offering filtering technology that permits censorship of political speech to an authoritarian government for use upon its populace.[57] The combination of expensive access, harsh laws and software-based filtering makes the Internet largely a state-controlled space in Burma.[58]

It is not just the role of the private sector that has come under critical review by academics and activists alike, but also the growing threat by commercial interests to the original values and intentions behind the development of the Internet.

> While it is not surprising that a country under military rule attempts to stifle freedom of speech and access to information online, what is surprising is that the tools used by Burma to do so are provided by the knowledge and expertise of Silicon Valley's best and brightest. As with an increasing number of other states where basic human rights are denied, such as Iran, Tunisia and the United Arab Emirates, the leaders of Burma have turned to western commercial technologies - in this case, the U.S. company Fortinet - to do the job of censorship and surveillance. There was a time, not that long ago, when the Internet's greatest entrepreneurs focused their talents on unleashing freedom of speech and access to information through technological innovation. In the case of Burma, regrettably, those entrepreneurial talents are being exploited by a military regime to do precisely the opposite.
>
> - Ronald Deibert, Director of the Citizen Lab, University of Toronto (ONI 2005)

However, in opening the international processes to civil society, Phase One of WSIS did begin to push for a new global governance environment in information and communication. As Marc Raboy (2004, 1) notes in his article entitled 'WSIS, Communication and Global Governance':

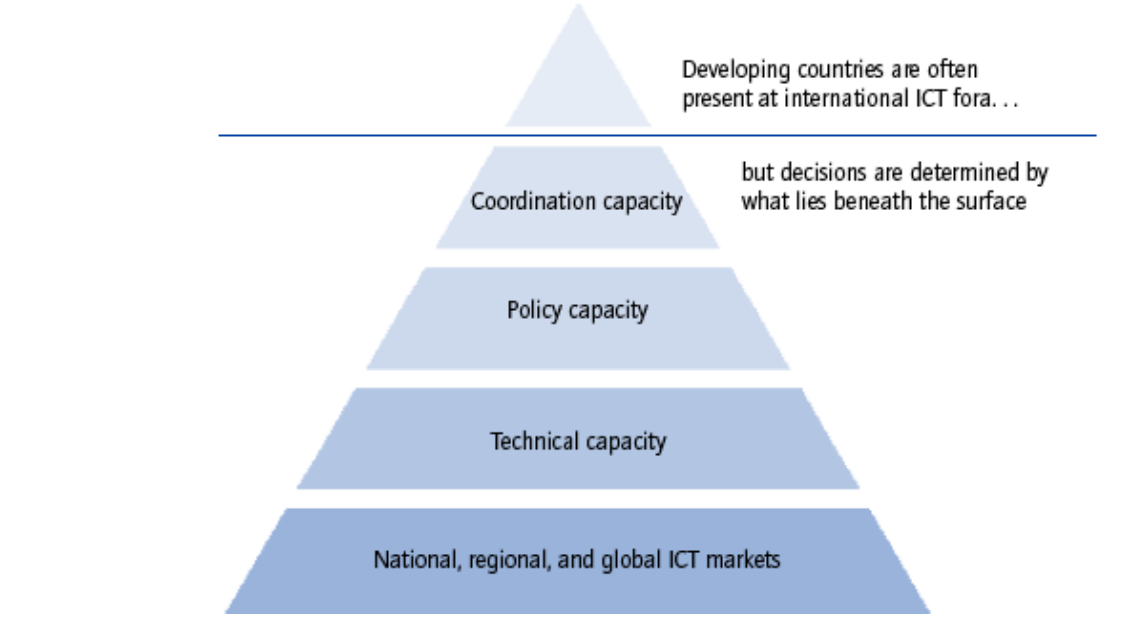
> The global governance environment in communication (as in much everything else) is based on the interaction and interdependence of a wide array of actors and policy-making arenas. Needless to say, power is not equally distributed among actors, and some sites of decision-making are more important than others. National governments still wield tremendous leverage both on the territories they govern and as the only legally authorised participants in international deliberations. Here again, the disparities are enormous but in all cases, national sovereignty is no longer absolute. Multilateral bodies, transnational corporations, and international treaties powerfully constrain the role of every nation state. Global governance is increasingly referred to as a multistakeholder process. The WSIS experience has transformed this framework most notably by sanctifying the place of civil society as an organised force in this process.

Yet, the question remains, where are women in this proposed new global governance structure? Because:

> Each major institutional arena is gendered it its male bias . . . (which) is then deeply reinforced-institutionalised through the formation of social networks or shared understandings and conventions of inclusion or exclusion, justified ideologically, which privilege the participation of a particular social group.
>
> - Anne Marie Goetz (1997)

Figure 3 below shows what exactly lies behind international ICT decision-making. At all levels, women's strategic gender interests[59] are the least represented, and they increasingly diminish in importance with each level below.

Figure 3. International ICT Decision-making: The Tip of the Iceberg



Source: Commonwealth Telecommunications Organisation and Panos London (2002, 16)

At the close of Phase One of WSIS, two critical issues remained unresolved among the participating governments: financing and Internet governance. This was not surprising since WSIS had failed to adequately contextualise its discourses in terms of the basic issue of who actually wields power and how exactly that power is used. WSIS failed to recognise that the bartering that happens at international public policy levels is very much tied to the economic and, unfortunately, military leverage of the country concerned, and issues of gender equality have no place there, let alone issues of women's empowerment.

Future Challenges

To date, the success of gender initiatives or gender mainstreaming has been measured by an increase in the representation of women in employment, politics or education, raising the awareness of gender issues within the population and the establishment of committees for the advancement of women. While each of these initiatives incorporates policy change at some level, these changes are not being supported by other changes within institutions. Future initiatives must seek to couple policy level changes with organisational changes that are designed to reform the traditional and often patriarchal cultures of institutions. These include formal institutions such as trade unions, non-governmental organisations, parliaments and business associations. Rao and Kelleher (2005) have flagged the possible challenges we face in bringing about institutional change. Four of the challenges highlighted include:

- The difficulty of implementing attitudinal change on the ground;
- The ideological split between gender mainstreaming and women's empowerment;
- A lack of skills and support at the leadership level; and
- The difficulty in measuring the success of changes due to a lack of tracking mechanisms.

These are challenges that are quite universal since no country has yet managed to close the gender inequality gap. What is particularly interesting is how the movement for gender equality has effectively made invisible 'women's rights and empowerment', as if one half of the population has vanished from that equation.

Policy Recommendations

Having touched on examples from the local context, visited the global context and reviewed the future challenges that East Asian countries will have to face, what kind of policy recommendations can be made to help ensure that women are better able to keep their governments accountable to their internationally-made commitments and to women as citizens?

1. Development policies and plans must build on global consensus agreements/documents and deploy an inter-sectional approach. Gender mainstreaming needs a nuanced approach that takes into account the diverse needs and perspectives of women emanating from differences in geopolitical, historical, class-based, racial, ethnic and other contexts. This means that the development of ICT policy in any country must also closely examine implications to the country's international trade policy, foreign policy, etc. For gender issues to be effectively addressed, strategies and solutions for achieving gender equality must strike at the root of unequal power relations - not just between men and women, but more fundamentally between rich and poor, North and South, urban and rural, empowered and marginalised.

2. Development policies and plans must be people-centred. Only development that embraces the principles of social justice and gender equality can be said to centrally address women's needs and redress fundamental economic and sociocultural divides. Market-based development solutions often fail to address more deep-rooted and persistent subordination that the poorest and most marginalised women face. In short, place priority on addressing gender inequality first in order to reduce poverty, rather than prioritise addressing poverty first and then hope that there will be a trickle-down benefit which will address gender inequality somewhat.

3. Ensure a conscious adoption of the rights-based approach in development policies and plans. A human rights framework needs to be applied in the issues analyses, strategies and solutions when addressing access to ICTs. Women's human rights instruments and crucial communications rights such as freedom of expression, the right to information, and the right to communicate, need to be promoted and protected. Emerging concerns such as the 'information security' on the Internet should not in any way infringe on people's privacy and right to communicate freely using ICTs. Policies that seek to redress the growing use of the Internet for trafficking, violent adult pornography, and paedophilia rings, must not under any circumstances be used for centralist control of all other content development and communication exchange over the Internet.

4. Ensure and safeguard the diversity of media and the plurality of media ownership. Traditional and indigenous forms of media and communications more accurately reflect the information and communications needs and preferences of the diversity of cultural, linguistic, ethics and value systems in East Asian societies. Respect for this diversity needs to be reflected in the diversity of solutions and strategies, since a focus on one solution, i.e. the digital solution, is antithetical to human opportunities and to the notion of democracy overall. E-solutions must always be complemented with equally effective non-e-solutions. Portrayal of issues must allow for different perspectives.

5. Support local solutions that are affordable for all. The current framework of infrastructure development of ICTs is heavily reliant on 'creating stimulating regulatory environments and fiscal incentives' to encourage investments from multinational IT, media and entertainment corporations from the North in countries of the South. National ICT policies must encourage local, low-cost and open source solutions and South-South exchanges that prevent the growth of monopolies in the ICT sector. There is also an urgent need to encourage local content producers, through public funding support to ensure the promotion and protection of local languages and cultural diversity.

Concluding Remarks

The examples from East Asia show that achieving gender equality is not as simple as providing some basic ICT skills and providing access to ICTs. Programmes, no matter how well-intentioned, will not be able to bring about permanent change as resources run out and nothing is left to further persuade and sustain initial efforts. More thought, effort and, particularly, resources need to put in place in order to ensure women's self-empowerment, as this internalisation of empowerment is the real sustainable driving force towards change. However, these requirements only form a small piece of the bigger picture. Women's empowerment, whether through the use of ICTs or not, cannot be addressed without addressing the issues of power. The strong political power play that takes place behind the scenes of 'who gets to use ICTs,

when and how, and what they get to access' are further complicated by the fact that there is one superpower - the USA - which has the loudest say over what can or should happen in the world, yet is in fact, at the end of the day, only accountable to its citizens.[60] One big, but maybe impossible, step towards ensuring that gender equality is better addressed through international platforms and human rights instruments is to see the USA finally ratify the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) and its Optional Protocol. Expansion of the powers and purview of the International Criminal Court may also be necessary considering how trade is increasingly about political power plays that result in discrimination, exploitation, violence and increased suffering.

It should also be acknowledged that many countries are aligned with the USA's stand on cybercrime issues and issues of Internet security, using the USA's stand as a convenient tool only because terrorism in most of these governments' understanding is defined as anything subversive to their existing power regimes. So while we can criticise the USA for many of the political power plays behind finance, trade and development aid, we cannot keep excusing our governments from their rightful accountability to their own citizens either. Women on the ground must be empowered to keep their governments accountable through the access, discernment and use of information, if we are to ever witness the 'utopic' information society.

Endnotes

* East Asia includes countries in the Southeast Asian and Mekong region.

1 Magaly Peres Pazello (2005), referring to the work of Manuel Castells, 'The Rise of the Network Society', argues that with the emergence of the new flexible and powerful technological paradigm, ICTs have turned information into an output of a productive process, which in turn can bring about institutional transformations, resulting in the intensification of unequal development beyond the boundaries of the North-South division.

2 UNIFEM (2000) reports that income inequalities between both countries and individuals have been accelerating since the early 1970s. According to the UNDP Human Development Report 2005, 18 countries with a combined population of 460 million people registered lower scores on the Human Development Index (HDI) in 2003 than in 1990 - an unprecedented reversal. According to the same report, in the midst of an increasingly prosperous global economy, 10.7 million children every year do not live to see their fifth birthday.

3 For more information on communication rights, see the World Association for Christian Communities' Centre for Communication Rights portal, http://www.centreforcommunicationrights.org.

4 This is not to say that ICT heralded the way to knowledge-sharing. Throughout history, knowledge is empowering, and it has been passed on from one generation to another through written texts, folk lore, word-of-mouth, religions and customs. However, within these traditional knowledge systems, knowledge remained preserved geographically and hierarchically. ICTs break down the socially, politically, economically and geographically constructed barriers to knowledge-sharing in an unprecedented manner. Hence, in the information society, knowledge should be able to perpetuate and enjoy a continuous value-addition and customisation.

5 This position was first outlined in 'Financing the Information Society in the South: A Global Public Goods Perspective' by Pablo Accuosto and Nicky Johnson of ITeM, in June 2004 (see Association for Progressive Communications 2006, 10). A public good has two critical properties, non-rivalrous consumption - the consumption of one individual does not detract from that of another - and non-excludability - it is difficult if not impossible to exclude an individual from enjoying the good. Joseph E. Stiglitz has discussed the concept of knowledge as a global public good in detail and has spoken of the need for global collective action in protecting this global public good for the equal benefit of all. See http://www.worldbank.org/knowledge/chiefecon/articles/undpk2/.

6 WSIS was formally created as a result of Resolution 73/2001 submitted at the Plenipotentiary Conference of the International Telecommunications Union (ITU), subsequently ratified by the UN General Assembly, where preliminary negotiations on topics, approaches, and objectives centred mainly on the Internet structure. The ITU, which was

responsible for proposing and carrying out the Summit, has become an organisation where large telecom companies play a key role. The ITU includes large multinationals (sector members) in addition to governments (state members). However, in the WSIS negotiation processes, apart from goverments and the private sector, civil society too was involved (Pazello 2005, 2).

7 The WSIS was continuously claimed as the first Summit in which all three sectors - government, private sector, and civil society - were actually involved in the negotiation processes. However, (Pazello 2005) contests this citing the UN Conference on Financing for Development which was held in 2002 and which resulted in the development of the Monterrey consensus.

8 Internet governance and issues of security are still unresolved topics from Phase One of the World Summit on the Information Society (WSIS). However, there is a growing consensus among nations of the importance of signing the Council of Europe's Cybercrime Treaty which is an international agreement created for the ostensible purpose of helping police cooperate on crimes that take place on the Internet. Unfortunately, the treaty, which was drafted with very little public input, requires signatory nations to cooperate with foreign dictatorships and give invasive new surveillance powers to law enforcement. It also lacks protections for privacy or other civil liberties, and applies far more broadly than to just the Internet. What is curiously interesting is that the final draft of the Treaty was ready by 25 May 2001, long before the September 11 2001 attacks, and was opened for signatures on 23 November 2001. For more information, see http://www.treatywatch.org/.

9 In addition to promoting and dealing with the liberalisation of telecommunications services and tariff-free trade in information technology products, the World Trade Organisation (WTO) addresses intellectual property rights (IPRs) and e-commerce issues. The General Agreement on Trade in Services (GATS) and the Agreement on Basic Telecommunications (ABT) have been used to pry open the global telecommunications market, while the Trade-Related Aspects of International Property Rights (TRIPS) agreement of the WTO not only precludes possibilities for developing countries to obtain affordable generic medications to treat HIV/AIDS, but also precludes developing countries from benefiting from the fruits of modern science that has its roots in local and indigenous knowledge which originates from these countries in the first place - most times knowledge held by local women. In the TRIPS agreement, intellectual property was extended from individual works to intellectual creation, making software copyrightable. With this new agreement, WTO is effectively precluding developing countries from the benefits of ICTs, affecting the public's access to knowledge in the public domain and to copyrighted works, limiting legitimate opportunities for cultural appropriations, stifling learning, creativity and innovation, and therefore, efficiently placing curbs on the democratisation of knowledge. The laws that regulate patents are national laws but agreements such as TRIPS make sure that these laws are extended internationally. For a fuller discussion, see 'Chapter 19: Intellectual Property' in Chris Nicol (2003, 85-96).

10 Phase Two of WSIS witnessed the Tunisian government's clampdown on freedom of expression (including website filtering, intimidation of journalists, and the sabotage of the Citizen's Summit on the Information Society, a WSIS side-event organised by a group of international organisations in partnership with Tunisian human rights and media freedom groups. This raised critical questions on the thoroughness of procedures in choosing the host country for UN summits, the protocols for host country agreements with UN agencies and the commitments required of the host country (Association for Progressive Communications 2006, 7-8).

11 The term 'thy' means 'your'. There is an inherent belief that naming allows you control over that person. This is particularly highlighted in biblical and spiritual texts. Feminists recognise the importance of language, and that men have historically been in positions to define the words that are used and thereby define the context of women's realities vis-à-vis men's.

12 See the earlier discussion of WSIS and Figure 3 for an idea of who actually wields decision-making power in the field of ICTs.

13 However, the Internet Backbone Service Providers argue that they do not charge developing country ISPs anymore than they do other customers. They cite poor telecommunications infrastructure at the regional and national levels, fewer peering points than elsewhere, and a lack of genuine competition in most developing countries, as reasons for the higher international costs. For a fuller discussion, see Chapter 4 on 'Market Structure Monopolies and Multinationals' in Nicol (2003, 30–33). For further reading on this and other issues relating to fincancing ICT as discussed in the context of WSIS, see Association for Progressive Communications (2006, 6).

14 Fewer than one in ten people worldwide speak English (Nath 2000).

15 For a more extensive discussion, please refer to UNESCAP (2007).

16 See http://foi.missouri.edu/internationalfoi/ for more information.

17 Thailand's Official Information Act of 1997 was to guarantee government transparency, make public agencies clearly accountable, enable the people's participation in the formulation and implementation of government policy, and provide access to the information necessary to do so. The law's scope is linked to the 1997 Constitution. Article 58 of the Constitution establishes a 'right to know'. A right to privacy is also established, in Article 34. The Official Information Act covers these two important rights by guaranteeing every citizen access to public information while protecting his or her privacy. The Official Information Act thus obliges the government to act in accordance with the desires of the citizens. For more information, see http://www.foi-asia.org/Thailand/Confreport_Thai.htm. For more information on the Japanese law, see http://www.nfoic.org/international-foi-laws#JAPAN.

18 Available at http://www.info.gov.hk/access/code.htm.

19 For more information on these efforts to petition for Malaysia's Freedom of Information Act, please visit SUARAM's website, http://www.suaram.net, and the Centre for Independent Journalism Malaysia's website, http://www.cijmalaysia.org.

20 There is no one definition and measurement of e-readiness; rather, these depend on the objectives of the study undertaken. Thus, according to the Economist Intelligence Unit, e-readiness is the extent to which a country's business environment is conducive to Internet-based commercial opportunities and its preparedness for e-business. One of the more appropriate and broader definitions of e-readiness includes issues of governance and accountability. An e-readiness definition with respect to States, based on Sen's Capability Approach and Brown's Information Based Approach, goes as follows: 'It is the preparedness of states to provide governance equitably and cost effectively and the capability reflected in the degree of integration the deprived segments of society attain after application of ICT as an e-governance tool. Apart from this, the ability of the state to provide business, the capacity to participate in the provincial level digital economy and further networking with the national level digital economy.' See www.mit.gov.in/ereadiness/2003/EX_SUMM_I-VI.pdf.

21 Michael Minges (2002) acknowledges that, 'The availability of ICT statistics showing a breakdown by gender at the country level is limited, indeed almost non-existent'. Having identified the reasons behind this problem, the ITU began to ask for a more straightforward and easily obtainable statistic: the number of female telecommunications employees in a country. The results illustrated not only the difficulty of obtaining a simple statistic even for developed countries such as France, Germany, Japan and the United States, but also showed the wide variation in the data from an analytical perspective. For more information, see http://www.itu.int/ITU-D/ict/WICT02/doc/pdf/DOC07_E.pdf.

22 The term 'institution' takens on the meaning highlighted by Naila Kabeer (1994), that is 'as the rules for achieving social or economic ends'. These are the rules that specify how resources are allocated and how tasks, responsibilities and values are assigned. In short, these rules determine who gets what, who does what and who decides. Although institutions vary within and across cultures and are constantly evolving and changing, they are embedded in relational hierarchies of gender, class, ethnicity, sexuality, nationality, etc., that define identities and distribute power both symbolically and materially.

23 A number of people may not agree with this view, especially in places where the State has historically and continuously failed to effectively deliver public goods and services to the people. For example, privatisation of the healthcare sector in Latin America has been welcomed by women health activists, as expressed during the Beijing +5 review process in New York, in the year 2000. However, recently, some have begun to realise that privatisation has a very limiting effect in terms of access for the poor.

24 The study is a first attempt by the World Economic Forum to assess the current size of the gender gap, by measuring the extent to which women in fifty eight countries have achieved equality with men in five critical areas: economic participation, economic opportunity, political empowerment, educational attainment, and health and well-being. These five important dimensions of female empowerment and opportunity were chosen based on the findings of UNIFEM concerning global patterns of inequality between men and women.

25 Even in these, Asia ranks third and second from the bottom, respectively.

26 In measuring women's health and well-being, it was good that the adolescent fertility rate was used as an indicator of health risks among women aged fifteen to nineteen years, and as an indicator of the lack of other choices available to young women. However, the other indicators used were more traditional, i.e. the percentage of births attended by skilled health staff, and maternal and infant mortality ratios. Women's health and well-being is surely more than just her fertility. Data which directly measure ownership and control over women's bodies and sexuality, such as access to (safe) abortion, were not included. Other statements point to the report's emphasis on the inclusion of women for national economic prudence, rather than on the empowerment of women. For example, Sweden, Norway, Iceland, Denmark, and Finland were described as countries that provide a 'workable model' for the rest of the world to follow, as they had supposedly understood the economic incentive behind empowering women; yet domestic violence persists in Sweden. 'Countries

that do not fully capitalise on one-half of their human resources are clearly undermining their competitive potential'. See comment by WEF chief economist, Augusto Lopez-Claros, at http://news.bbc.co.uk/2/hi/business/4550789.stm.

27 Available data on the UNAIDS website shows that HIV infection among women is increasing, with estimates sometimes tripling (for more information, visit http://www.unaids.org. Current global spending on HIV/AIDS, a disease that claims three million lives a year, represents three day's worth of global military spending.

28 This should not be equated to number of women-headed households alone. Here, issues are related more to access, control and allocation of opportunities and resources.

29 For example, the Gender Mainstreaming Action Plan (GMAP) is a strategy to engender sectoral plans that was developed by Cambodia's Ministry of Women's Affairs with the United Nations Development Programme (UNDP) facilitation. Currently 21 out of Cambodia's 26 Ministries and 2 Secretariats have set up gender mainstreaming action groups to develop plans in their sectors. For more information, please visit http://www/un.org.kh/undp/?url=/undp/areas/gender.

30 Unfortunately, women are still not valued for their productivity at the household level, and women's unpaid work remains significantly missing from quantification in national accounting. However, a recent move by the Malaysian government, which was reported by the media on 8 August 2005, has encouraged husbands to contribute to their stay-at-home wives' employee provident fund. Contributions, however, are voluntary and there is no minimum stated.

31 Both women's and men's generation, adaptation and use of knowledge and technology are shaped by the economic, social, cultural, political and geographical contexts in which the two sexes live but which each gender experiences in a different way (Fernandez 1994). See http://www.nuffic.nl/ciran/ikdm/2-3/articles/fernandez.html

32 Women, who are often visible in their own cultures and production systems, are becoming less and less visible as disconnected 'bits' of local – indigenous – knowledge are made known to the outside world (Fernandez 1994). Although women and men not only can have a different knowledge of similar things; a different knowledge of different things; different ways of organising knowledge; and different ways of preserving and transferring knowledge; there is little or no reference to the differentiated role of men and women in the generation, transmission and use of knowledge. Hence, the mere sharing of knowledge cannot be assumed to have the same effect on men and women if it cannot be applied further.

33 There are a number of replications in East Asia of the Grameen Bank's micro credit system, e.g. in Indonesia, the Philippines, Malaysia and Vietnam.

34 For example, through the establishment of community telecentres such as those in Cambodia and the Philippines, although all of these may not necessarily be designed from a gender perspective.

35 The Women's Electronic Network Training Workshop, strongly supported by UNESCAP for five consecutive years, was initiated by the Asian Women's Resource Exchange (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 information and communication technologies for women's empowerment. The members of AWORC include women's information, resource and documentation centres, women's information providers and users, communications organisations working closely with women's networks. For more information on the network, see http://www.aworc.org/inidex.html.

36 According to Maxine Molyneux (1985), these are called women's practical gender interests, defined by women acting to promote perceived practical needs that they have as a part of their given gender role in the sexual division of labour. On the other end of the scale are women's strategic gender interests. Molyneux defines these as interests that are derived from a critique of male domination and a vision of an alternative set of gender arrangements that would eliminate it. Caroline Moser (1989) made a similar distinction to Molyneux but re-defined both as 'practical and strategic gender needs' and explicitly tied both to subjective claims of women, consciously identified, rather than defined outside of the context. This was to distinguish between what she called 'top-down' government approaches to development and 'bottom-up' approaches.

37 Illustrative case studies on the application of ICTs for development have largely come from South Asia, rather than East Asia, with most of these examples from India, Bangladesh and Nepal.

38 WENT, as described earlier, 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 UNESCAP as a form of acknowledgment to the most successful WENT graduate who applied her learnings from WENT for a selected community or within her own organisation.

39 In 2005, e-Homemakers tied in second place for the Gender and ICT Awards, organised by the Global Knowledge Partnership (GKP) and the Association for Progressive Communication Women's Networking Support Programme (APC WNSP). Two awards were given out for the economic empowerment of women.

40 Most of e-Homemakers' members are women who have tertiary-level education.

41 Given that women in Asia continue to fulfil traditional gender roles, promoting teleworking for women should be done with a conscious 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 that evaluation of teleworking from a gender perspective is continuous (APC WNSP 2003).

42 The exercise, though, may prove to be complicated as unemployed men or men who have lost their jobs may also be mistakenly counted as 'househusbands'. Here, househusbands does not just mean that the husband stays at home, but that he plays an active role in undertaking responsibilities around the household which have been traditionally done by women.

43 Jayati Ghosh (1999) has pointed out that the possibility of easy dismissal was one of the main reasons why women found employment in large numbers during the boom years of the 1980s and early 1990s. She has also highlighted the widespread perception that female employees are more tractable and subservient to managerial authority, less prone to organise into unions, more willing to accept lower wages, less likely to expect upward job mobility and easier to dismiss using life-cycle criteria like marriage and childbirth.

44 Interviews conducted by Womenshub, Philippines. ICTs have enabled the outsourcing of work, which has affected women both in the South and in the North. As women in the North lose out on employment opportunities because their labour costs are higher, women in the South who may not have high level technical skills but have a reasonable command of English are being trained to handle calls at call centres.

45 Laws do not always necessarily properly reflect the content and intention of the country's constitution.

46 Unlike other indicators of progress, which show systematic differences between wealthy and poor countries and an undeniable link between poverty and gender inequality, there are no such differences in terms of women's participation in national governments. This is the only indicator that is not affected by national poverty, resulting in the fact that in some wealthy countries, women's political participation is well below that achieved in many developing nations. The United States, France and Japan, where women's share of parliamentary seats is 12 percent, 11.8 percent and 10 percent respectively, lag behind thirteen developing countries in sub-Saharan Africa, which is experiencing the greatest regional poverty in the world. In South Africa and Mozambique, women's share of seats is 30 percent, while Rwanda and Uganda have 25.7 percent and 24.7 percent respectively.

47 Women's agency in governance issues can be severely affected by whether they are citizens or whether they are migrant workers (legal or illegal). In East Asia, the Philippines, Indonesia and Cambodia are 'sending countries', with women making up the majority of those migrating for work.

48 For further reading, see 'Malaysian gov't must review laws to free media and information' by the Centre for Independent Journalism. http://www.genderit.org/upload/ad6d215b74e2a8613f0cf5416c9f3865/CIJMalaysia.pdf

49 See http://www.suaram.net/display_article.asp?ID=199. The citizens of Broga hope to go one step beyond the efforts of Kampong Bohol, i.e. to ensure that the problem does not get shifted to an even poorer community and that incinerators of that capacity are never built in Malaysia.

50 At the time of the controversy, big advertisements were taken out to promote the establishment of the incinerator as 'safe and for the good of all'.

51 It is not clear to what extent the Japan Bank for International Cooperation, Japan International Cooperation Agency and other related offices are supporting such private sector 'initiatives'.

52 Incinerators, including those depicted as 'state-of-the-art', endanger public health and the environment with toxic emissions, destroy huge quantities of valuable resources, burden importing countries with unbearable debts, weaken recycling, hinder job creation and community development and concentrate financial gains in the hands of big businesses.

53 'Clean Shit/Alice Lives Here' (2005) is directed by Ong Ju Lin and produced by Reel Power Productions. The film came first in the amateur category and won the Justin Louise Award at the Freedom Film Festival held in August 2005 in Malaysia.

54 For more information on Sara Longwe's women's empowerment framework, see http:www.apcwomen.org/gemkit/en/understanding_gem/longwe.htm.

55 For further reading, please see Third World Network (2005).

56 In thematic summits, government representatives are reluctant to touch on issues that fall outside their Ministries' portfolio. This results in international declarations and consensus documents that are sometimes very weak in an integrated analysis and approach to the issues of concern.

57 According to the Press Release by ONI (2005), the filtering software was reportedly obtained from the open source DansGuardian project and purchased from US-based vendor Fortinet. Fortinet denies that it directly sold such software to the regime, while a May 2004 article in a Burmese newspaper features a picture of the company's local sales director presenting a gift to Burma's Prime Minister at a ceremony commemorating the sale.

58 Myanmar is not the only country that conducts Internet filtering. China is reported to have one of the most sophisticated systems of Internet filtering (report available online at http://www.opennetinitiative.net/studies/china/ONI_China_Country_Study.pdf) and Vietnam is involving corporations to take more concrete steps to block the net, see http:www.vermontguardian.com/global/0904/BlockingTheNet.shtml.

59 Maxine Molyneux's analysis of strategic gender interests and practical needs is vital in our discussion on women's empowerment. Women's strategic gender interests enhance women's power of choice over politics, reproduction, work and income. This is where interventions are needed in order to change institutions.

60 But not necessarily equally accountable to each citizen since the USA's policies and programmes are not that well-known for addressing the inequalities and inequities within its own borders.

References

Association for Progressive Communications. 2006. Pushing and prodding, goading and hand-holding: Reflection from the Association for Progressive Communications (APC) at the conclusion of the World Summit on the Information Society. http://rights.apc.org/documents/apc_wsis_reflection_0206.pdf

Commonwealth Telecommunications Organisation and Panos London. 2002. *Louder voices: Strengthening developing country participation in international ICT decision-making*. http://www.markle.org/downloadable_assets/686_cto_report.pdf

Dholakia, Ruby, Nikhilesh Dholakia, and Nir Kshetri. Gender and Internet usage. In The *Internet encyclopedia*, ed. Hossein Bidgoli. New York: John Wiley & Sons, Inc.

Elson, Diane. 1991. *Male bias in the development process: Contemporary issues in development studies*. Manchester: Manchester University Press.

Ferguson, Ann. 2004. Can development create empowerment and women's liberation? Paper presented at the workshop, 'AlterGlobalisations: Another World is Possible', 4-12 April, in San Miguel de Allende, Mexico. http://www.ebowman.home.igc.org/AnotherWorld/papers/ferguson.htm

Fernandez, Maria E. 1994. Gender and indigenous knowledge. *Indigenous Knowledge Monitor*, 2(3). http://www.nuffic.nl/ciran/ikdm/2-3/articles/fernandez.html

Gerster, Richard, and Sonja Zimmermann. 2003. *Information and communication technologies (ICTs) for poverty reduction*. Berne: Swiss Development & Cooperation Agency.

Ghosh, Jayati. 1999. Impact of globalisation on women: Women and economic liberalisation in the Asian and Pacific region. Paper presented at the Forum on Impact of Globalisation on Women, organised by United Nations Economic and Social Commission for Asia and the Pacific, in Bangkok, Thailand.

Goetz, Anne Marie.1997. *Getting institutions right for women in development*. London: Zed Books.

Greig, Froniga. 2005. Gender at work: Increased participation requires institutional change. Paper presented at the United Nations Division for the Advancement of Women (DAW) Expert Group Meeting on 'Enhancing participation of women in development through an enabling environment for achieving gender equality and the advancement of women', 8–11 November, in Bangkok, Thailand. www.un.org/womenwatch/daw/egm/enabling-environment2005/docs/EGM-WPD-EE-2005-EP.4%20%20F.pdf

Jones, Rochelle. 2006. *Women and ICTs: How did gender fare at the World Summit on the Information Society (WSIS), and what's next?* http://www.awid.org/go.php?stid=1574

Kabeer, Naila. 1994. *Reversed realities: Gender hierarchies in development thought*. London: Verso.

Kee, Jac SM. 2004. Using ICT in services, public education and advocacy. Case study prepared for the APC WNSP-organised 'Gender and ICT Policy Advocacy Workshop', Asia Pacific NGO Forum, Beijing+10, 2 July, in Bangkok, Thailand.

Kee, Jac SM. 2005. Day 6, Overview of gender-related language in WSIS documents. GenderIT blog, http://www.genderit.org/en/index.shtml?apc=f—e—1&x=91897

Kenny, Charles. 2001. Information and communication technologies and poverty *TechKnowLogia*, (July/August). http://www.techknowlogia.org/TKL_active_pages2/CurrentArticles/main.asp?IssueNumber=12&FileType=HTML&ArticleID=292

Kuga Thas, Angela M. 2005. *Paddling in circles while the waters rise: Gender issues in ICTs and poverty reduction*. Bangkok: APC WNSP

Kuga Thas, Angela M., Chat Ramilo, and Cheekay Cinco. 2007. Placing women's empowerment back into the gender equality framework. In *Gender and ICT*. Bangkok: UNDP-APDIP

Longwe, Sara Hlupkile. 1995. The evaporation of policies for women's advancement. In a commitement to the World's women. New York: UNIFEM.

Lopez-Claros, Augusto, and Saadia Zahidi. 2005. *Women's empowerment: Measuring the global gender gap*. Geneva: World Economic Forum.

Minges, Michael. 2002. Gender and ICT statistics. Paper presented to the Third World Telecommunications/ ICT Indicators Meeting, 15-17 January 2003, in Geneva, Switzerland.

Molyneux, Maxine. 1985. Mobilisation without emancipation? Women's interests, states and revolution in Nicaragua. *Feminist Studies*, 11(2): 227-54.

Moser, Caroline. 1989. Gender planning in the third world: Meeting practical and strategic gender needs. *World development*, 17(11): 1799-825.

Nath, Vikas. 2000. Heralding ICT enabled knowledge societies: Way forward for the developing countries. http://members.tripod.com/knownetwork/articles/heralding.htm

Nicol, Chris, ed. 2003. *ICT policy: A beginner's handbook*. Johannesburg: APC.

Ng, Cecilia. 2002. Globalisation and women. http://www.daga.org/ds/dsp00/dl3m-c.htm

Pazello, Magaly Peres. 2005. World Summit on the Information Society. Paper presented at the Regional Workshop 'From margin to center: Gender equity in building the information society', 9-11 May, in Buenos Aires, Argentina.

Peake, Adam. 2004. Internet governance and the World Summit on the Information Society. Association for Progressive Communications, http://rights.apc.org/papers.shtml

Rao, Aruna, and David Kelleher. 2005. Is there life after gender mainstreaming? *Gender and Development*, 13(2): 57-69.

Rao, Aruna, and David Kelleher. 2002. Unravelling institutionalised gender inequality. Occasional Paper No.8. http://www.awid.org/publications/OccasionalPapers/Unravelling_Inst_Gender_Inequal.html

Raboy, Marc. 2004. WSIS, communication and global governance. *Media development*, 3: 3-7. London: WACC. http://www.wacc.org.uk/wacc/publications/media_development/2004_3/wsis_communication_and_global_governance

Ramilo, Chat. 2002. National ICT Policies and Gender Equality Regional Perspectives: Asia. Paper presented at the UNDAW Expert Group Meeting on 'Information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women', November 11–14, in Seoul, South Korea.

Roy, Subir. 2003. Can ICTs be India's growth engine? *Rediff.com*, March 12. http://www.rediff.com/money/2003/mar/12guest.htm

Scott, Joan. 1991. Gender as a useful category of historical analysis. In *Women's studies international: Nairobi and beyond*, ed. Aruna Rao. New York: The Feminist Press.

Shivdas, Meena, ed. 2001. *I on the mouse: ICTs for women's advocacies and networking in Asia and the Pacific*. Manila: Asian Women's Resource Exchange.

Third World Network. 2005. Undermining development: The threat of free trade agreements. *Resurgence*, No. 182-183. www.twnside.org.sg

Toro, Maria Suarez. 2005. Where is women's J spot? GenderIT Blog, March 3. www.genderit.org/en/index.shtml?w=a&x=91139

United Nations Development Fund for Women (UNIFEM). 2002. *Progress of the World's Women 2002, Volume 2*. New York: UNIFEM.

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2007. Gender assessment of current e-business policies and strategies in Asia: Lessons from Malaysia, the Philippines, the Republic of Korea and Thailand. Gender and Development Discussion Paper Series No. 17. Bangkok: UNESCAP.