EDITED BY
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Cinderella
or
Cyberella?

Empowering
Women in the
Knowledge
Society

Kumarian
Press, Inc.

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Nancy J. Hafkin and Sophia Huyer
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Acronyms

AAUW	American Association of University Women
ACP	Africa, Caribbean, and Pacific
AIDMG	Association for the Integral Development of Mayan Guatemala
AISI	African Information Society Initiative
APC	Association for Progressive Communications
APDIP	Asia-Pacific Development Information Programme
APWIN	Asian Pacific Women's Information Network
CEMINA	Communication, Education and Information on Gender
CIDA	Canadian International Development Agency
CLC	community learning center
CTA	Technical Centre for Agricultural and Rural Cooperation
DFID	Department for International Development (UK)
ECA	United Nations Economic Commission for Africa
ECOSOC	Economic and Social Council (United Nations)
ENDA	Environment and Development in the Third World
FIRE	International Feminist Internet Radio
FLOSS	Free/Libre Open Source Software
GICT	gender and ICT
GKP	Global Knowledge Partnership
GTP	Global Teenager Project
ICANN	Internet Corporation for Assigned Names and Numbers
ICT/ICTs	information and communication technology/ies
ICT4D	ICT for development

ICT4E	ICT for education
IDRC	International Development Research Centre
ILO	International Labour Organization
IMC	Independent Media Center
IRI	interactive radio instruction
IT	information technology (related to the employment sector)
ITU	International Telecommunication Union
KRNIC	Korean Network Information Center
MDGs	Millennium Development Goals
NEPAD	New Partnership for Africa's Development
NGO	nongovernmental organization
NICI	national information and communication infrastructure
ODL	open and distance learning
OECD	Organisation for Economic Co-operation and Development
PC	personal computer
S&T	science and technology
SEWA	Self Employed Women's Association
SL	sustainable livelihoods
SMEs	small- and medium-sized enterprises
SMS	short message service
SNA	SchoolNet Africa
SP	stability pact
SP GTF	Stability Pact Gender Task Force
SPEM	State Poverty Eradication Mission (Kerala, India)
TSC	technical service center
VoIP	Voice over Internet Protocol
UNDAW	United Nations Division for the Advancement of Women
UNESCO	United Nations Educational, Scientific and Cultural Organization

UNDP   United Nations Development Programme
UNIFEM   United Nations Development Fund for Women
WSIS   World Summit on the Information Society

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Introduction

Sophia Huyer and Nancy J. Hafkin

Cyberella or Cinderella: what is the future for women in the knowledge society? Cyberella is fluent in the uses of technology, comfortable using and designing computer technology and communication equipment and software, and in working in virtual spaces. She can imagine innovative uses for technologies across a range of problems and subjects and finds information and knowledge to improve her life and expand her choices.[1] She is an active knowledge creator and disseminator and, more than a user, she designs information and knowledge systems to improve all aspects of her life. In contrast, Cinderella works in the basement of the knowledge society (if she works in it at all), with little opportunity to reap its benefits. Instead she waits for her prince to decide for her the benefits she will receive.

Cyberellas in countries around the world are using information and communication technologies (ICTs) in creative ways to improve their lives: Women mobile phone operators in Bangladesh help other women get information on registering their land, opening a business, or obtaining a tax certificate. Poor women in Guatemala are learning to repair computers and set up their own ICT-enabled businesses. Teenage girls in Mauritania are using ICTs to find information about sexuality and HIV/AIDS that their society will not discuss. All of these women are Cyberellas who are finding and using information and technologies that were previously inaccessible to them.

It is Cyberella we are aiming for. In order for women to benefit equally from the possibilities of the knowledge society, they need to participate in it actively from a position of independence, choice, capabilities, and action.[2] Gender equality and empowerment are necessary prerequisites for women's participation in the knowledge society.

Much of the work and action on gender equality, women's empowerment, and ICTs has so far emphasized three areas: access to ICTs for

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women, women's use of ICTs as tools for networking and advocacy, and women's work in the information technology (IT) sector.[3] But there is a wider range of aspects of women's empowerment relating to ICTs that is not as frequently addressed; access to information for health and well-being at the local level, ICT-based small- and medium-sized enterprises (SMEs) for low-income women, and ICT-enabled education for women and girls are just some examples. This book attempts to address this imbalance by calling attention to how ICTs can provide tools to enable individual women or men to make choices about their lives in the household and community. ICTs can be important tools for gender equality and women's empowerment in both society and work, particularly for poor women in developing countries: this book looks at how and why this can happen. Our focus is not on the technology, but rather on women's empowerment in the context of a gendered world and how ICTs can make the most effective contributions to it.

We look at women's social and economic empowerment as supported by ICTs and based in gender and development theory. Our approach to women's empowerment and ICTs builds on an approach to women and development that incorporates an emphasis on gender equality, poverty reduction, and technology for development. The analysis of gender and development theory—including gender and technology for development—as developed over the past thirty years brings clarity to the picture of how ICTs can offer opportunities for women. Bearing in mind the Millennium Development Goals (MDGs) and their focus on poverty reduction, we look especially at the situation of poor women in developing countries and the ways in which ICTs can contribute to their social and economic well-being.

A substantial amount of gender analysis has been done on the role of ICTs in these various sectors, such as their role in promoting women's SMEs and the use of information for women's reproductive and sexual health, but it has not been presented in an integrated manner. This separation of approaches, analysis, and understanding limits the effectiveness of gender advocacy and, therefore, the use of ICTs to support women's empowerment. Calling attention to the possibilities that ICTs present for women's empowerment in all parts of their lives will, we hope, encourage increased connection and collaboration among women and women's advocates across sectors and worlds.

ICTs are not a magic wand or Cinderella's scepter that will do away with centuries of discrimination and inequality. *It is not the technology itself that will empower women.* But because they are an increasingly pervasive

force in global life and an increasingly accepted part of what defines the "haves," women need to acquire and use these technologies to prevent further marginalization. Information technologies are tools that can open up a range of possibilities. But they are more than that: they have characteristics and properties that go directly to the roots of women's inequality by transcending invisibility and hierarchy while offering access to information and an escape from cultural isolation.

Finally, women have a great deal to contribute to the design, use, and application of knowledge and information in terms of their local knowledge, innovation, creativity, and perspective. All of these aspects combine to make ICTs not just a means to avoid further marginalization but potentially unique tools for empowerment. *Women should have equal access, use and opportunity to benefit from ICTs in order to improve their lives and increase their status in the household and community as full participants in the knowledge society. Used appropriately, they can be catalysts of gender equality and women's empowerment.*

The world is spinning in an orbit increasingly shaped by knowledge and technology. Countries need to develop their human resources to enter the knowledge society, to include the contributions of all their people. Poverty reduction depends on improving the situation of women and increasing the efficiency of their work: societies that discriminate by gender pay a high price in economic growth (World Bank 2001). Increasingly evidence is emerging of the many opportunities ICTs can provide for women to improve their incomes, gain awareness of their public and private rights, and improve their own and their families' well-being. As a result, promoting women's empowerment through ICTs as a route to their active participation in the knowledge society is one of the critical development challenges of the twenty-first century. As recognized internationally, "when there is an enabling environment, ICT can provide diverse avenues for women's social, political and economic empowerment" (UNDAW 2003). The first phase of the World Summit on the Information Society (WSIS) in Geneva in December 2003 declared gender equality to be a priority for the global information society, to enable "women's empowerment and their full participation on the basis of equality in all spheres of society and in all decision-making processes" (WSIS 2003).

Supporting equitable social development at the local level with ICTs requires a broad understanding of what an ICT is. In an environment where electricity and phone lines are undependable or expensive, computers and the Internet may not be the most appropriate strategy. We

adopt Hamelink's functional definition of ICTs as encompassing "all those technologies that enable the handling of information and facilitate different forms of communication among human actors, between human beings and electronic systems, and among electronic systems" (Hamelink 1997). This includes Internet and e-mail, among the new technologies, as well as traditional ones such as community radio. Throughout we use ICTs in this broad sense; we generally refer to the industry that produces ICTs as the IT industry, following North American usage.

To identify the role of ICTs in supporting women's empowerment, we will consider their ability to enable agency, capability, and choices for women and their role in supporting a process of change from a condition of disempowerment. To arrive at full empowerment in the knowledge society, Cinderella needs to become Cyberella.

Chapters in the book are written by practitioners and researchers in the field of gender, ICTs, and empowerment from Africa, Asia, Latin America, and North America. They present examples and analysis of several aspects of women's social and economic empowerment from a variety of viewpoints, including:

- economic empowerment through collective action at the local level and support to women's livelihoods;
- promoting the education of women, both with ICTs and for technological empowerment;
- ICT and telecommunications policy to promote universal access, particularly in rural areas;
- supporting women's social movements at local and national levels; and
- e-governance.

The authors present their perspectives on how ICTs can help to empower women and girls (and men and boys) and support gender equality through both collective and individual approaches. All share the belief that this can be done only if ICTs are implemented in ways that are supportive of local situations and socioeconomic status—in particular, in ways that are cognizant of gender and other social-equality issues. Each chapter also addresses critical factors in the use of ICTs to support women's empowerment, identifying lessons learned and presenting suggestions for next-step issues, research, and actions. All chapters include examples of successful or promising attempts to achieve this goal. ICTs

have been used to promote social development only during the past few years, and little large-scale analysis of the results of such efforts is yet available, concerning either gender equality or the benefits and results of these projects. Nevertheless, there are some promising signs of progress, and the chapters in this book attempt to assess these, at the same time presenting a critical view of the potential and actual negative effects of these technologies.

The three opening chapters set the stage for the case studies that follow with global overviews of what we know about the collection of sex-disaggregated data on women's participation in the information society at national and international levels; the involvement of women in ICT policymaking and implementation at international, regional, and national levels; and the educational context affecting the ability of women to benefit from, design, and use ICTs and technology.

They are followed by four case studies that present experience in the gender dimensions of ICT-enabled teaching and learning in Africa as promoted by SchoolNet Africa (SNA); the role of ICTs in supporting women's entrepreneurial activities at the local level (Asia); e-governance at the municipal level (Asia); and the role of ICTs in women's social movements in Latin America.

Two of the cases focus on women who live in grassroots rural and peri-urban remote communities, with particular attention to low-income women. In general, the women in these groups can be expected to have lower levels of literacy, education, and income than other groups[4]— characteristics that tend to inhibit their abilities to use technologies— but these chapters show that ICTs can be used successfully by women and men in marginalized communities.

The use of ICTs by women from a mix of socioeconomic groups is assessed in two cases, ranging from the teachers and leaders in the SNA network and educated technology workers and women leaders in several urban-based social movements in Latin America, to the children in both rural and urban centers who use computers in schools and the rural-based women who learn to use and appropriate ICTs through the work of their social movements.

In Chapter 1, "Understanding Gender Equality and Women's Empowerment in the Knowledge Society," Sophia Huyer reviews the concepts of gender, gender equality, women's empowerment, technology for development, and the global policy environment around these issues, including the MDGs.[5] The questions she asks include What is empowerment for women? What does it mean for women's lives and

their relations with men? How can ICTs contribute to women's empowerment, improve their position in life, and increase their well-being? What are the prerequisites for women's empowerment and gender equality in the knowledge society? The purpose is to work toward a theoretical understanding of what women's empowerment in the knowledge society consists of and how ICTs can promote gender equality and women's empowerment toward this end.

While there are many different approaches to and understandings of empowerment, most have in common the concepts of options, choice, control, capabilities, and power. These pertain to women's ability to make decisions and affect events and circumstances around them; benefit from resources and opportunities; exercise control over their own life, body, and resources; and have a say in public life and decision making—all with the result of increasing or achieving autonomy and improving health and well-being. Huyer distinguishes between empowerment approaches that emphasize organized collective action and those that assess women's situation at the individual, local level, and compares related approaches of gender equity, gender equality, and gender mainstreaming.

Huyer then turns to discussions of poverty reduction and technology as they relate to women's role in the household and society, particularly the ground-breaking research by Ester Boserup on women's contributions to economic development and Patricia Stamp's analysis of the effects on women of a technology-as-neutral approach. Finally, she presents a perspective on understanding the interrelations among the range of contributions, approaches, and uses of ICTs as a tool to promote gender equality for social, economic, and political empowerment.

In Chapter 2, "Women, Gender, and ICT Statistics and Indicators," Nancy J. Hafkin assesses the current status of data collection and analysis on the differential impact of ICT on men and women at the global level. Her position is that the availability of quantitative information on how the situation of women compares to that of men in their countries with regard to access, use, and impact of ICTs is a necessary prerequisite to the achievement of a globally equitable information society. Accurate sex-disaggregated data and indicators are necessary to understand gendered trends of participation in the information age, to inform policy, and to develop strategies to address any inequalities and gaps. The current paucity of data in this area makes it difficult, if not impossible, to make the case to policymakers for the inclusion of gender issues in ICT policies, plans, and strategies. Without data, there is no visibility; without visibility, there is no priority.

This chapter surveys the quantitative data currently available on women and gender with respect to ICTs collected by international agencies and national governments (primarily in developing countries) and assesses the strengths and gaps of these data collections. It then presents some current initiatives to develop models and approaches to collect sex-disaggregated data and identifies those areas where data is most needed to come to an accurate understanding of the nature and magnitude of the gender digital divide.

Sonia Jorge looks at the political aspects of empowerment in Chapter 3, "Engendering ICT Policy and Regulation: Prioritizing Universal Access for Women's Empowerment," through involvement in the making of ICT policy and its implementation. She sees socioeconomic empowerment as the goal of political activity in the policy area, envisaging that the greatest results for women will come from universal access to ICTs. Access to means of communication would provide an escape route from women's isolation and lack of "visibility." Her approach establishes the conditions that will allow individual women to use ICTs for their self-defined purposes.

Jorge emphasizes the importance of gender analysis to ICTs for development, especially in the area of policy and regulation. She feels that the analysis needs to be made by gender experts and by gender advocates—men and women who see the need for gender equality in ICTs. She defines ICT policy as providing the vision and the road map for ICT development, whereas regulation is established to implement the policy goals. She shows that much has been accomplished in the last few years in getting gender concerns into ICT policy—by women's groups at WSIS and in national policy in the Dominican Republic, Ghana, Kenya, Mozambique, and South Africa, among other countries. She defines the important gender elements in policy and regulation and stresses that these elements need to be mainstreamed. Jorge then outlines the process by which policy is elaborated and how gender issues can and should be part of the process. While progress is being made in engendering ICT policy, she notes gender concerns tend to fall away in implementation. Jorge also looks at examples of grassroots projects using ICT for women's empowerment, citing examples of women making change themselves instead of waiting for a policy or its implementation. In the quest for women's empowerment through the tool of ICT, she sees universal access to communication as key. As a short-term strategy she advocates working toward universal access policy and funds, supporting grassroots ICT initiatives that empower women, and addressing the