Gender, ICTs and Development in Africa / Les sexospécificités, TIC et développement en Afrique
A Bibliography / Une bibliographie

Abagi, O. (2006). Gender and ICT in Africa: ICT career women speak out about ICT, gender and education in Kenya. *International Institute for Capacity Building in Africa Newsletter, 8*(2). Retrieved from http://www.grace-network.net/publications/3_95_UNESCO_IICBA_Newsletter_Dec_06.pdf
Although the three professional women did not face obvious gender discrimination or stereotyping during their school days, they believe that girls were and are still facing a lot of challenges that are gender based. They hasten to add that the challenges they faced while in school were normal. These had largely to do with the biological changes which occur, especially during puberty, which if not well managed, tend to affect girls' performance in their work at school. This is particularly serious at high school, in cases of mixed secondary schools, where boys and male teachers harass female students.

APC WNSP. *Gender, ICT and …ostrich eggs? GRACE, an African ICT research network.* Retrieved from http://www.grace-network.net/publications/3_95_Gender,_ICT_and_Ostrich_Eggs_-Erika-APC.pdf
What do ostrich eggs, free attitudes, ICT and graciousness have in common? An exciting new research initiative that brings together African researchers to study Africa, ICTs and women's empowerment, called GRACE. The Gender Research in Africa into ICTs for Empowerment held it's first researcher capacity-building workshop in Durban in July 2005, and while researchers from all over the continent honed their project proposals and fine-tuned networking skills, they also learned how to create ostrich eggs around themselves.

Arun, S., Heeks, R., & Morgan, S. (2004). *Researching ICT-based enterprise for women in developing countries: A livelihoods perspective*. Manchester, UK: University of Manchester. Institute for Development Policy and Management. Retrieved from http://www.womenictenterprise.org/LivelihoodsResearch.doc
Often 'poverty' is synonymous with low income but increasingly the multi-dimensionality of poverty has come into focus within the development literature. Sen (2001) identifies four dimensions of poverty such as opportunity (access to markets and employment); capability (access to health and education); security (vulnerability to economic risks and to all forms of violence); and empowerment (power within and beyond the household). The Sustainable Livelihoods (SL) framework is an emerging tool that draws on the notion of multidimensionality to improve our understanding of livelihoods, particularly the livelihoods of the poor.

Asiedu, C. (2006). Information communication technologies, and gender and development in Africa. Paper presented at the *American Sociological Association 2006 Annual Meeting,* Montreal, Canada. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=26642561&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement

This study explores how development organizations like the United Nations (UN) and Non Governmental Organizations (NGOs) conceptualized the relationship between gender, development and Information Communication Technologies (ICTs) in Africa. It analyzes the documents and activities of the organizations and determines that there is a focus on economic empowerment, especially by the UN. It argues that the focus on economic empowerment poses a threat to the potential of the political and advocacy role of ICTs as effective means of civil society participation for women in Africa. The study concludes that to ensure that the Information Society enable African women's empowerment and their full participation in the decision-making processes, there should be creative and innovative ways to turn women into producers, providers and creators of ICTs rather than just consumers.

Buskens, I. (2006). Gender research in Africa into ICTs for empowerment. *International Institute for Capacity Building in Africa Newsletter, 8*(2). Retrieved from http://www.grace-network.net/publications/3_95_UNESCO_IICBA_Newsletter_Dec_06z.pdf
The dream for GRACE is to evolve into a sustainable research network that will continue to engage research into women, ICTs and gender issues beyond the limited time frame of this project and will expand its base of participating researchers and countries beyond the current ones. Inspired by this vision, GRACE embraces a strong emphasis on research capacity building in all the phases of the research process. Furthermore, creating a nurturing research environment for junior researchers is a priority for all involved: for the Grace coordinating team as well as for the site projects' senior researchers.

Buskens, I., Esterhuysen, A. & Radloff, A. (2004). *GRACE: Gender research in Africa into ICTs for empowerment : proposal presented to the IDRC by the Association for Progressive Communications (APC-Africa-women).* Retrieved from http://www.grace-network.net/publications/GRACE%20proposal.pdf
This project aims to explore the ways in which women in Africa use ICTs to empower themselves, the external, structural barriers as well as the internal factors which prevent them from using ICTs to their advantage, and the strategies they employ to overcome these impediments. The project comprises 15 sub-projects, reflecting 14 research sites in 12 countries and one meta research sub project. While coherent with the general aim of the overall research initiative, the sub-projects differ from each other greatly in terms of target group and research focus. Furthermore, the concepts of gender and empowerment which frame the project's general direction and commitment, may not have unequivocal meaning within the sub-projects. The project therefore also aims to contribute to the debates focusing on women empowerment and ICTs through finding its own understandings of what "empowerment" and "gender" may mean in the African ICT context. The lessons learnt will be shared with policy makers and educators in the form of contextualized and local-specific recommendations.

Buskens I. & Webb, A. (2008). *GRACE 2: Gender research in Africa into ICTs for empowerment. proposal presented to the IDRC by Research for the Future*. Retrieved from http://www.grace-network.net/publications/GRACE%202%20Proposal-Feb%2014,%2008,%20final.pdf
This proposal emerges from the accomplishments of the first phase (May 2005 –

February 2008) of the Gender Research in Africa into ICTs for Empowerment (GRACE) project, and from a recognition that the emergence of a sustainable research network can be achieved through an additional implementation and capacity development phase. Based on the effectiveness of the first phase in relation to the objectives of research capacity development and analysis of the relationships between gender, ICTs and empowerment,1 we propose extending this initiative, enriching its initial methodological basis and expanding its reach. In terms of the network's initial methodological grounding in qualitative research for transformation, we aim to evolve this focus into action directed approaches, participatory policy research, quantitative approaches that are coherent with the transformative objectives of the project, mastering the transformative qualitative techniques and methodologies that were initiated and explored in GRACE 1, and integrating outcome mapping methodology in the research designs. GRACE 2 will also expand the reach of the initiative to introduce certain elements from the overall process and specific training from the above mentioned transformative research techniques to partners in Asia and MENA (the Middle East and North Africa). It is envisaged that GRACE 2 will run from March 1, 2008 until February 29, 2011.

Buskens, I. & Webb, A. (ed.). (2009). *African women and ICTs: creating new spaces with technology.* **Zed Books.** Retrieved from http://www.idrc.ca/en/ev-135944-201-1-DO_TOPIC.html
The revolution in information and communication technologies (ICTs) has vast implications for the developing world, but what tangible benefits has it brought when issues of social inclusion and exclusion, particularly in the developing world, remain at large? In addition, the gender digital divide is growing in the developing world, particularly in Africa. So what do ICTs mean to African women?
African Women and ICTs explores the ways in which women in Africa utilize ICTs to facilitate their empowerment; whether through the mobile village phone business, through internet use, or through new career and ICT employment opportunities. Based on the outcome of an extensive research project, this timely book features chapters based on original primary field research undertaken by academics and activists who have investigated situations within their own communities and countries. The discussion includes such issues as the notion of ICTs for empowerment and as agents of change, ICTs in the fight against gender-based violence, and how ICTs could be used to reconceptualize public and private spaces.

Dralega, C. (2007). Rural women's ICT use in Uganda: collective action for development. *Agenda: Empowering Women for Gender Equity,* **(74).** Retrieved from http://www.agenda.org.za/content/blogcategory/88888963/88888981/
This article interrogates a gender-oriented Information Communication Technology (ICT) strategy that adopts a collective approach to enhance ICT use among rural women. It focuses on the Ugandan, rural-based Nakaseke Women's Development Association (NAWODA) as a case study and examines the use of a CD-ROM project aimed at economically empowering rural women. The interpretations of the findings indicate that, while women's collective activism, as a reaction to socio-economic and cultural domination, has yielded some economic empowerment, further interpretation of the community of practice suggests manifold shortfalls, notably a rise of a new, regressive and disempowering divide among the members of this community.

Duncombe, R., Heeks, R., Morgan, S., & Arun, S. (2005). *Supporting women's ICT-based enterprises: a handbook for agencies in development.* **Manchester, UK: University of Manchester. Institute for Development Policy and Management.** Retrieved from http://www.womenictenterprise.org/WomenICTEnterpriseHandbook.doc
This handbook provides practical guidance on how to advocate, initiate and improve women's IT sector micro-enterprises in developing countries. It includes case and story evidence, best practice advice sheets, and frameworks for analysis and evaluation.

Etta, F. (2005). *Engendering ICT policies in Africa: WSIS gender caucus efforts.* **Washington, DC, USA: The World Bank.** Retrieved from http://siteresources.worldbank.org/INTGENDER/Resources/FlorenceEttaPresentation.doc
 What has the role of the WSIS Gender Caucus been in engendering WSIS and its processes in Africa? This short document summarizes the outcomes of the World Summit on the Information Society (WSIS) Gender Caucus (GC) engagement in Africa since December 2003. Created in Bamako in 2002, the WSISGC has been actively participating in the United Nations (UN) regional preparatory conferences and made proposals and recommendations at these and at other high level meetings on gender and ICTs. From the information gathered at conferences it has organized since 2004, the GC has also clarified its position on the outstanding issues of Internet governance (IG) and financing. As a result of its efforts, a number of African women were trained to analyse ICT projects, programmes, national ICT policies and e-strategies from a gender perspectives. Continuing challenges for the GC include: the near absence of gender advocates in policy-making structures and decision making positions at the national and international levels, underdeveloped gender and ICT theories and analytical frameworks, weak or non existent gendered indicators, to support lobbying efforts for gender-sensitive ICT policies.

Gender and ICTs Network. (2004). Citoyennes africaines de la société de l'information: manuel de première urgence à l'intention des *décideurs / African women citizens of the information society: advocacy document for decision makers.* **Dakar, Sénégal: ENDA Tiers-Monde.** Retrieved from http://www.famafrique.org/regentic/e-citoyennes.pdf
Sous la coordination de Marie-Hélène Mottin-Sylla, il analyse les résultats d'une enquête menée en 2004 et 2005 par Regentic dans six pays (Bénin, Burkina-Faso, Cameroun, Mali, Mauritanie et Sénégal). A l'aide d'indicateurs quantitatifs et qualitatifs, il mesure précisément la disparité de sexes dans l'appropriation des tics en Afrique francophone. Par exemple, une femme a un tiers de possibilités en moins qu'un homme, d'accéder aux avantages de la société de l'information. L'indicateur global de la fracture numérique de genre utilisé dans le cadre de cette étude, se base sur 4 composantes (contrôle, contenus, capacités, connectivité) et regroupe 18 indices. Il permet d'évaluer la disparité entre sexes dans l'accès, l'usage et la maîtrise de trois technologies : l'ordinateur, internet, et le téléphone portable. L'impact des technologies de l'information et de la communication sur la réduction de la pauvreté, étant désormais reconnu dans tous les discours et déclarations officiels, il s'agit d'exhorter les décideurs publics et civils, à mettre en conformité leurs paroles et leurs politiques. Les rédacteurs de cet ouvrage, acteurs vigilants d'une société plus juste et inclusive en termes de genre, le

rappellent avec force. / The digital revolution will have a profound effect on relations between women and men. However, this is ignored by those who have brought in this revolution, seeking only short term profits in an environment of increasing global competition. In the process of national reform of the ICT sector, women and civil society organisations have not been consulted. This is both due to gender blindness in public policy and the economy of ICTs, but also to the lack of interest among women's and civil society organisations. Policies need to take account of the principles of the World Summit for the Information Society (WSIS) - the right to development, to information and communication, universal provision of services and participation of a variety of actors. These imply that a national programme should ensure connectivity, capacity, relevant content and control over ICTs by women as well as men.

Gillard, H., Howcroft, D., Mitev, N., & Richardson, H. (2008). "Missing women": gender, ICTs, and the shaping of the global economy. *Information Technology for Development, 14*(4), 262-279. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=34870386&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement
In a key article (Walsham & Sahay, 2005?) outlining research on information systems in developing countries and suggesting potential areas for future research, a notable omission was the issue of gender and gender relations. In this article, we draw on the substantial gender and development literature to demonstrate the centrality of gender to our understanding of information systems (IS) in developing countries. In particular, we consider the relationship among gender, information and communication technologies (ICTs), and globalization to illustrate how changes in the global economy both impact on and are influenced by changing gender identities and roles.

Gurumurthy, A. (2003). Gender and ICTs: overview report. Paper presented at the *The World Summit on the Information Society (WSIS) 2003,* Geneva. Retrieved from http://www.bridge.ids.ac.uk/reports/CEP-ICTs-OR.pdf
Some international organisations and civil society groups are engaging with issues that concern the democratisation of the ICT arena − from the digital divide and the right to communicate, to cultural diversity and intellectual property rights. Gender equality advocates have also been pushing for addressing the gender dimensions of the information society: integrating gender perspectives in national ICT policies and strategies, providing content relevant to women, promoting women's economic participation in the information economy, and regulating violence against women and children connected to pornography on the Internet. The World Summit on the Information Society (WSIS) held at Geneva in December 2003, brought together the multiple stakeholders in the arena to address the challenges and possibilities posed by ICTs, although with mixed outcomes.

Hafkin, N. (2000). Convergence of concepts: Gender and ICTs in Africa. In Rathgeber E., & Adera E. O. (ed.). *Gender and the information revolution in Africa / L'inégalité des sexes et la révolutionde l'information en Afrique* (pp. 1). Ottawa: IDRC/CRDI. Retrieved from http://www.idrc.ca/en/ev-9409-201-1-DO_TOPIC.html / http://www.idrc.ca/fr/ev-9409-201-1-DO_TOPIC.html

A concern for gender and development emerged on the international scene in the 1970s. As this concern matured, linkages developed between this and other major development concerns — science and technology (S&T), development information, and, most recently, information and communication technologies (ICTs) — as a focus in the development community. Only in the last 5 years have two concepts begun to converge: that of ICTs and development and that of gender and development (until the late 1980s, women in development [WID]). The critical mass of activity in this area in Africa has taken place only in the past 2 years. This chapter looks at the ways these themes have emerged and converged historiographically and thereby develops a clearer understanding of the analysis of gender and ICTs in Africa.

Hafkin, N. (2002). Gender issues in ICT policy in developing countries: an overview. Paper presented at the *UNDAWExpert Group Meeting on Information and Communication technologies and their impact on and use as an instrument for the advancement and empowerment of women,* Seoul, Korea. Retrieved from
http://www.wwan.cn/womenwatch/daw/egm/ict2002/reports/Paper-NHafkin.PDF
While advocacy for gender issues in ICTs gained their first international foothold at the fourth World Conference on Women in Beijing in 1995, the issue of gender issues in ICT policy has been on the international scene for only four years. It first came into international consciousness with a series of papers on gender issues, particularly in policy, presented at the World Telecommunications Development Conference organized by ITU in Valletta, Malta in 1998. The push to get the issue on the WTDC agenda came from UNIFEM, the United Nations University Institute on new Technologies and the Government of Canada, through the Canadian International Development Agency (CIDA). Governments, including several African countries, also presented papers on gender issues. The presentations had considerable impact on the conference, and resulted in ITU's establishment of the Gender Task Force. From the gender side, the issue first appeared internationally the same year at the ECA Fortieth Anniversary Conference on Women and Economic Development. One of four tracks at the Conference was gender and ICTs, with an important paper presented on gender in ICT policy (Marcelle 1998). Hopefully one of the results of this Expert Group meeting will be the maturing of the issue and its appearance on the agenda of next year's World Summit on the Information Society.

Hafkin, N. (2004). Gender issues at the World Summit on the Information Society, Geneva. *Information Technologies & International Development, 1*(3), 55-59. Retrieved from
http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=16650251&site=ehost-live
Accessible only at IDRC / Accessible au CRDI seulement
Discusses the inclusion of gender issues in the Information and Communication Technologies for Development Platform (ICT4D) of the World Summit on the Information Society held in Geneva, Switzerland on December 2003. Groups involved in promoting awareness on the importance of gender considerations in ICT; Reason for the focus on the gender dimensions of ICT; Information on the Gender and ICT Awards at the Summit.

Hafkin, N., & Huyer, S. (2007). Women and gender in ICT statistics and indicators for development. *Information Technologies & International Development, 4*(2), 25-41. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=34072831&site=e-live Accessible only at IDRC / Accessible au CRDI seulement
Issues related to the gender digital divide have been prominent in discussions of the information society. However, the paucity of statistical data on the subject makes it difficult, if not impossible, to make the case for the inclusion of gender issues in ICT policies, plans, and strategies to policymakers, particularly those in developing countries. This paper surveys available gender ICT statistics and indicators and makes recommendations for filling the gaps that exist. Few gender ICT statistics are available because many governments do not collect ICT statistics consistently and regularly, and rarely are the data disaggregated by sex. The best practices are generally found in developed countries, with most developing countries lagging behind. Recent work that sheds light on women, gender, and the information society includes a major six-country study on the gender digital divide in francophone countries of West Africa and Orbicom's 2005 research on women in the information society. Although major composite ICT indices do not publish gender and ICT statistics, the potential remains for them to do so, and some indices encourage others to enrich their work with gender data.

Hafkin, N. & Odame, H. (2002). *Gender, ICTs and agriculture: a situation analysis for the 5th Consultative Expert Meeting of CTA's ICT Observatory Meeting on Gender and Agriculture in the Information Society.* Technical Centre for Agricultural and Rural Cooperation ACP-EU. Retrieved from http://www.cta.int/observatory2002/background_paper.pdf
How can resource-poor rural women in Africa, the Caribbean and the Pacific (ACP) use Information and Communication Technologies (ICTs) to improve their agricultural production, food processing and food provision? This paper analyses the situation of gender, ICTs and agriculture in ACP nations, through identifying opportunities and challenges to rural women's effective use of these technologies. The report provides an overview of gender and ICT concerns in these countries, along with an extensive survey of key organizations and initiatives dealing with gender and ICTs. These include innovative projects on information exchange, access provision, rural income generation, ICT skills training for micro enterprise development, rural Telecenters, wireless connectivity, rural radio and ICT-assisted education. The paper also analyzes gender-related projects implemented by the Technical Centre for Agricultural and Rural Cooperation (CTA) ACP-EU and proposes actions for including gender concerns in CTA's work. Priority among them is promoting research, training and capacity building, and access to ICTs, as well as increasing networking and exchange of experiences.

Heeks, R. (2005). Developing women's ICT-based enterprise: summary of an International Knowledge-Sharing Workshop. Paper presented at the *Developing Women's ICT-Based Enterprise,* Thiruvananthapuram, Kerala, India. Retrieved from http://www.womenictenterprise.org/WorkshopKeralaReport.doc
This report presents the findings from an international workshop on "Developing Women's ICT-Based Enterprise" attended by 38 participants from South Asia, South-East Asia, Southern Africa, East Africa, Central America and the Caribbean. The report is divided into four main parts:

1. An overview which describes the emerging reality of IT sector enterprises being run by women in developing countries which are delivering direct developmental benefits from use of ICTs; something that many "e-development" projects fail to do.

2. A report on the large-scale creation of IT sector enterprises by poor women in Kerala State, India. The report reviews the supportive context of Kerala state; the nature, history and work of these IT sector enterprises; and a set of lessons learned from field visits to two of these enterprises.

3. The findings of a set of group knowledge-building activities that provided new ideas on how to get support from sponsors for women's IT enterprise projects; on how to support such projects with handbook resources; and on key challenges – and their solutions – for such projects.

4. Pointers are provided to a set of case presentations of women's IT enterprises from Southern Africa and India, from which a set of overarching issues are drawn out.

Heeks, R., Arun, S., & Morgan, S. (2004). *Researching ICT-based enterprise for women in developing countries: an enterprise perspective***. Manchester, UK: University of Manchester. Institute for Development Policy and Management.** Retrieved from http://www.womenictenterprise.org/EnterpriseResearch.doc
The enterprise perspective on ICT-based microenterprise for women approaches this topic from a business worldview: one that sees the microenterprise as a business venture that is intended to develop sales, income, growth, etc. There are many different elements within this perspective, since it has developed over many years, and it can operate at different levels.

Heeks, R., Arun, S., & Morgan, S. (2005). *Researching women's ICT-based enterprise for development: methods, tools and lessons from fieldwork***. Manchester, UK: University of Manchester. Institute for Development Policy and Management.** Retrieved from http://www.gateway.or.tz/docs/Researching_ICT_Enterprise_for_Development.pdf
This paper is for people interested in researching women's ICT-based enterprises in developing countries. It will also be of value to those researching women and ICTs or ICT enterprises and development more generally. The paper reports on, and draws lessons from, one project's experiences in researching a group of ICT-based enterprises (mainly doing data entry, IT training, and hardware assembly work) run by cooperatives of poor women in Kerala state, India. No study findings are presented here; just reflections on the research and fieldwork process. The paper describes the holistic – multi-disciplinary, multi-method – approach to research used to develop the fieldwork instruments for this project. As well as providing copies of these instruments, this paper also describes issues and lessons emerging from their application. These include practical issues, conceptual issues, as well as issues that arise from the holistic nature of the research approach. A bullet-point list of nine lessons is provided at the end of the main paper.

Huyer, S. & Sikoska, T. (2003). *Overcoming the gender digital divide: understanding ICTs and their potential for the empowerment of women*. Retrieved from http://www.iiav.nl/epublications/2003/Overcoming.pdf
The "gender digital divide" is used to describe the existing inequalities and biases in access to and use of Information and Communication Technologies (ICTs) by women and men. The fact that ICTs have so far been predominantly designed and

created within male-dominated environments and that ICT policies are usually formulated by male policy-makers has contributed to this divide. Yet ICTs, when appropriately harnessed, also hold great potential for women's empowerment on an individual level (better self-esteem, increased confidence and more career opportunities) as well as on a collective level (improving their advocacy, lobbying and networking activities). This paper synthesizes major research findings contained in the five background papers commissioned by the United Nations International Research and Training Institute for the Advancement of Women (UN INSTRAW). The report explores the leading approaches to maximising the potential of ICTs for women's empowerment, examines the social context of technology, and identifies the main structural barriers to women's access and use of ICTs. Strategies are proposed to overcome these barriers and empower women through ICTs. Priority among them is the need for women's groups to share experiences and knowledge to strengthen their lobbying skills, and to gain expertise in engendering the ICT policy-making and regulation process.

Islam, B. (2005). *Creating an outer circle in the digital world: participation of women in the e-government system.* **United Nations.** Retrieved from http://www.un.org/womenwatch/daw/egm/eql-men/docs/OP.2_Creating_an_Outer_Circle_in_the_Digital_World.pdf
This paper argues for the incorporation of gender equity and women's agenda in ICT policies to combat the exclusion-inclusion syndrome of digital power relations. It focuses on the situation in the Gambia. The current digital era has opened up a space for participation in governance through alternate means. The author argues that concerns of gender equity must be built into current ICT policy to ensure that this technology does not lead to greater inequalities between men and women. The author cites the development of national ICT policy (NICI policy) for the Gambia as a case where gender equity and poverty alleviation where built in objectives of the policy.

Jolly, S. Narayanaswamy, L. & Al-Zu'bi Ra'ida. (2004). *Gender and ICTs.* **BRIDGE, Falmer, East Sussex, UK: Institute of Development** .
Retrieved from http://www.bridge.ids.ac.uk/bridge/reports/CEP-ICTs-SRC.pdf
Mainstream perceptions of new information and communication technologies (ICTs), especially the Internet, are overwhelmingly positive, where they have only technical rather than social implications. The reality is that vast numbers of people are excluded from the benefits of these technologies, in particular people who lack the necessary infrastructure, skills, literacy and knowledge of the dominant Internet language – English. Women, poor and rural people are more likely to be among this group. Nevertheless, attempts have been made to make the benefits of ICTs more widely accessible, to use ICTs to empower women and others, and to take on the policy environment which sets the terms for control of ICTs. Such attempts in relation to gender are introduced in this collection. Resources are also presented which point to how to lobby for a more gender-sensitive ICTs policy, and how to implement ICTs programmes so that women can both use and benefit from them.

Kamuzora, F. (2006). Tasting success in electronic commerce: a case of disintermediation in women's small businesses in Tanzania. Paper presented at the *Gender, ICTs and Development,* **Manchester, UK.** Retrieved from http://www.womenictenterprise.org/KamuzoraWorkshopPresent.ppt

One has to look very hard to find many success cases of information and communication technology (ICT) deployment in women's small and medium enterprises (SMEs) from developing countries. However, the paper demonstrates that there are some women in developing countries who are benefiting greatly from electronic commerce. Using two case studies from Tanzania, one from the textile sector and another from the tourism sector, the paper analyses the success of women's SME groups who have managed to increase their business profits through disintermediation wrought by the web. It is concluded that where there are prerequisite conditions, women-owned businesses can use e-commerce leverage in expanding their market shares globally through disintermediation.

Kiondo, E. (2007). Millennium development goals: challenges and opportunities for using ICTs to promote gender equality in Africa. *Agenda: Empowering Women for Gender Equity,* **(74).** Retrieved from
http://www.agenda.org.za/content/blogcategory/88888963/88888981/
This *article* examines how Information Communication Technologies (ICTs) can be used effectively to empower African women, promote gender equality and help achieve the Millennium Development Goals (MDGs). It argues that lack of gender analysis and inadequate understanding of social cultural contexts inevitably leads to differential impacts and benefits accruing from development processes between men and women. The author notes that, although ICT has been hailed as a powerful tool for empowering women, there are several challenges that exclude women from effective access to and use of ICT. She concludes that there is need to create an enabling environment for the promotion of gender equality and socially deconstructing ICTs to make them sensitive to the needs of women.

Kitetu, C. (ed.) (2008). Gender, science and technology: perspectives from Africa. **Dakar, Senegal: CODESRIA.**
The book provides a window onto the current state of female participation in science and technology in Africa, along with an analysis of the historical backgrounds, current educational and professional contexts, and prospects for the future. While it is evident that more research needs to be done, with more groups in different regions, this volume brings together a rich and inspiring collection of qualitative insights on gender, science and technology in Africa.

Kole, E. (2001). Appropriate theorizing about African women and the Internet. *International Feminist Journal of Politics, 3***(2), 155-179.**
The WomenAction 2000 case data illustrate that the Internet situation among women's organizations in Africa is highly problematic. The women have specific computer network needs - and even among this 'group' the needs vary. They further represent grassroots women who have no access to computer networks. The survey data illustrate that appropriate theorizing on Internet working by women in Africa must address both technological and social issues. It must also integrate gender, North-South, context and other aspects. For this purpose, available approaches are neither complete nor entirely adequate. Together however, they offer enough building blocks to study African women and Internet introduction appropriately. Constructivist technology studies (including gender and technology approaches) offer good starting points for an appropriate model. Nevertheless, constructivism needs additions to support gender empowerment in the South.

Critical development studies and the integrative view on global communications offer useful additions to this end.

Kole, E. (1998). An integrated approach to human resource development in ICTs to support women in Africa. Retrieved from http://www.xs4all.nl/~ekole/public/idrchrd.html
Discussion paper for IDRC/ACACIA workshop on Human Resource Development for ICTs that took place in Nairobi, Kenya.

Kwake, A., Ocholla, D. & Adigun, M. (2006). The feasibility of ICT diffusion and use amongst rural women in South Africa. *South African Journal of Library & Information Science, 72*(2), 108-118. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=23276305&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement
This study explores whether ICT use is feasible in the rural areas of South Africa. Using the survey method, women aged 16–60 were sampled to include: Small-scale traders (58, 29.0%): Housewives/homemakers (48; 24.0%); Farm employees (25, 12.5%), Domestic workers (18; 9.0%): Educators/teachers (16; 8.0%): Students (15, 7.5%), Entrepreneurs managing large-scale enterprises (3, 1.5%), Clerical workers (9, 4.5%); Community development workers (6, 3.0%) and Preachers (2: 1.0%). These 200 respondents formed the sampling size. Sampling data was obtained from Census household data of the magisterial districts of Umlalazi i.e. Eshowe, Amatikulu, Gigindlovu and Mtunzini. Using the snowball technique women respondents, directly and indirectly connected to each other, were identified, and consequently interviewed. The survey results indicate that access and exclusion are still predominant issues, as while a meager average of 11(5.5%) respondents use modern technologies such as the computer/internet, more than half (115: 57.5%) of the respondents surveyed face problems ranging from affordability, to distance and time. Additionally, there is a marked correlation between the respondents' level of education, type of ICTs' accessed and information needs and purposes. It was observed that singularly, ICTs are insufficient for significant benefits to emerge.

Kwapong, O. (2008). Policy implications for using ICTs for empowerment of rural women in Ghana. *Turkish Online Journal of Educational Technology, 7*(3), 35-45. Retrieved from http://www.tojet.net/volumes/v7i3.pdf#page=36
Using rural household survey data collected from 1000 female household heads selected from all the ten administrative regions in Ghana, this paper explored the policy implications for using ICTs for empowerment of rural women. A contingent valuation (CV) method was used to quantitatively estimate the influence of selected socio-economic factors on rural women's willingness to pay for alternative information delivery technologies. Even though the government sets the overall national ICT policy, the results from this study suggest some merit in allocating considerable authority to regional and local authorities in setting priorities and approaches to empowering rural women through the use of ICT. The study results also point to a need to cast rural empowerment policies and programs within the broader poverty reduction policies of the government and also within the attainment of the Millennium Development Goals (MDGs). The results again indicate the need to formulate policies and programs to prevent duplication of efforts and critical "Political Will".

Litho, P. (2006). ICTs, 'empowerment' and women living in rural Uganda. Paper presented at the *Gender, ICTs and Development,* Manchester, UK. Retrieved from http://www.womenictenterprise.org/LithoWorkshopPresent.ppt
The belief that information and communication technologies (ICTs) can result to socio-cultural, economic and political change has resulted to a shift in development discourse. A number of development agencies now promote ICTs as a panacea for Africa's development and the 'empowerment' of women. This way of thinking has lead to massive donor investment into ICT initiatives in Africa in almost all sectors. The question however is; Based on preliminary data from the CEEWA ICT project in Uganda, this paper attempts to address the above question. It shares stories from the standpoint of rural women in Uganda, on what it means to use ICTs in their every day life. The preliminary analysis of the data also points to interesting policy issues that would be of relevance for governments, policy makers, development donors and other ICT users.
This paper uses the standpoint of African feminists as an overarching framework but also borrows from the social construction of technology approach and Sara Longwe's women's empowerment framework to examine what ICTs for development (ICT4D) has meant for the 'empowerment' of poor women living in rural Uganda.

Madanda, A., Kabonesa, C. & Bantebya-Kyomuhendo, G. (2007). Challenges to women's empowerment through ICTs: the case of Makerere University. *Agenda: Empowering Women for Gender Equity,* (74). Retrieved from http://www.agenda.org.za/content/blogcategory/88888963/88888981/
Access to and use of Information and Communication Technologies (ICTs) is believed to hold a promise for women's empowerment and social change (Isaacs, 2002; Hawkins, 2002; Aloo, 1995). In higher education, computer technology and the internet have enormous benefits including: access to cutting edge educational materials, flexible distance learning suitable to time-constrained women, enhancement of academic outcomes, promotion of self-esteem and attainment of marketable skills. This *profile* examines challenges of using ICTs in higher education for women's empowerment through training and access to physical facilities. It is based on an empirical study conducted in the 2005/6 academic year at Makerere University in Uganda. The results indicate that enrolment of women in ICT courses has risen from about 15% to 40% by the end of 2006, and there is increased use of internet, email, networking and research. However, there are challenges of empowering women through access to ICTs. Obstacles largely emanate from patriarchal, institutionalised work and programmatic ethics, limited physical ICT facilities as well as individual characteristics, perceptions and attitudes. We conclude that skills and physical access alone are insufficient to bring about women's empowerment.

Maier, S. (2007). Women's empowerment and the information society. *Information Technologies & International Development, 4*(2), 1-2. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=34072827&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement
The article discusses various reports published within the issue, including one by Chetan Sharma on how chikan embroidery workers in Kanpur and Lucknow, India used information and communication technologies (ICTs) to gain marketable information technology and vocational skills, and another by Susan Schaefer Davis

on how illiterate women weavers in rural Morocco use the Internet to sell their handmade rugs to generate their own income.

Marcelle, G. M. (2000). Getting gender into African ICT policy: a strategic view. / La prise en compte des femmes dans la politique des pays africains sur les technologies de l'information et des communications : une perspective stratégique. In *Gender and the information revolution in Africa. / L'inégalité des sexes et la révolution de l'information en Afrique.* **Ottawa, ON, CA: IDRC/CRDI.** Retrieved from http://www.idrc.ca/en/ev-32945-201-1-DO_TOPIC.html / http://www.idrc.ca/fr/ev-32945-201-1-DO_TOPIC.html

African policymakers face many economic, social, and political challenges as they seek to improve material living standards and quality of life in Africa and undertake their task of transforming the continent in a complex, rapidly changing, and uncertain environment. Having observed the positive impacts of science and technology (S&T) and in particular the revolution in information and communication technologies (ICTs) in wealthier nations, policymakers in Africa are turning their attention to this area of economic activity. Unfortunately, decision-makers have few directly comparable examples to assist them in developing ICT policies supportive of sustainable development. The challenge of harnessing ICTs for development is difficult and encompasses many issues. / C'est dans un environnement complexe, marqué par l'incertitude et en rapide évolution, que les dirigeants africains doivent s'atteler à la tâche de transformer le continent et, en s'efforçant d'améliorer le niveau de vie, ils se heurtent à une foule de difficultés d'ordre économique, social et politique. Ayant observé les retombées positives des sciences et de la technologie, en particulier la révolution des technologies de l'information et des communications (TIC) dans les pays plus riches, les dirigeants africains tournent leur attention vers cette sphère d'activité économique. Malheureusement, les décideurs n'ont guère d'exemples directement comparables pour les aider à se doter d'une politique sur les TIC propice au développement durable. Il est difficile de mettre les TIC au service du développement et de nombreux enjeux entrent en ligne de compte.

Mbambo, B. (1999). Disseminating African women's information on the Internet: issues and constraints. *Information Development, 15***(2), 103-105.** Retrieved from http://idv.sagepub.com/cgi/content/abstract/15/2/103

The choice of media for dissemination of information about women depends on the type of information to be disseminated, the target audience, expected feedback, urgency, and availability of various media. In Africa, the Internet is not the most easily accessible medium for dissemination of information for the majority of women, yet it is the fastest and least costly. African women with Internet connectivity have made progress in using the Internet, with several organizations developing Websites and the emergence of African women's listservs. The women of Africa are thus moving from being passive consumers of Internet information to active users. Discusses two challenges to effectively disseminating information via the Internet for these women: the digitization of existing information and the accessibility of the Web. Strategies for success must include training in information and communication technology, access to computers, digitization of the needed information, and access to improved telecommunications, including wireless connections.

Mbarika, V., W. Payton, F., Kvasny, L. & Amadi, A. (2007). IT education and workforce participation: a new era for women in Kenya? *Information Society, 23***(1), 1-18.** Retrieved from http://ist.psu.edu/faculty_pages/lkvasny/WomenandITinSSA_2006_June-02.pdf While Sub-Saharan African women have historically assumed the roles of both housewives and subsistence farmers, they have had few opportunities to participate in the modern economies of the region. However, this trend is changing with the exponential growth of information and communications technologies (ICT), giving many Sub-Sahara African women access to computers, the Internet, and other related technologies. Based on the work of a four-member research team from Kenya and the United States, this article examines the integration of female college students into the formal ICT work sector in Kenya. We do so by examining major bottlenecks and enablers to such integration from historical and contemporary perspectives. Using an interpretive approach, we conducted 32 interviews with women in an ICT program offered by a university in Kenya. Our findings indicate that women were highly optimistic, embracing ICT as a practical mechanism for achieving entry into the labor market. However, they perceived significant structural barriers, such as public policies that failed to facilitate the development of the ICT sector, gender discrimination by employers, and training that provided them with insufficient technical skills to enable them to effectively perform in the workplace. These findings largely confirm the gendered perspectives found in similar studies conducted in other countries. However, what appear as global perspectives are informed by the local causes.

Meier, S. & Reichert, U. (2007). Empowering women through ICT-based business initiatives: an overview of best practices in E-commerce/E-retailing projects. *Information Technologies & International Development, 4***(2), 43-60.** Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=34072832&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement Information and communication technologies (ICTs) have been increasingly promoted as a key solution for comprehensive development, poverty eradication and the empowerment of historically disadvantaged groups, such as women and minorities in the Global South. ICT-based business initiatives, and e-commerce projects in particular, have been hailed as "potential goldmines" for women's empowerment. However, research and experience show that to be successful, projects must balance the need to overcome structural barriers to women's advancement with sensitivity to the limited space within which many women in the Global South navigate. In this paper, we review literature on ICT and empowerment of women, drawing upon several e-commerce/ e-retailing projects as case studies to identify a set of best practices that underlie a successful project: 1) government and institutional support, 2) societal involvement, 3) training and empowerment, 4) expansion of market access, and 5) managerial best practices. We anticipate that the insights generated by this study will be useful both for purposes of effective program development and policy design.

Migiro, S. & Kwake, A. (2007). Information needs and communication technology adoption in Africa: a comparative study of rural women in Kenya and South Africa. *Journal of Social Development in Africa, 22***(1), 109-141.** Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=25844273&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement

Using survey research methodology, the study examined adoption and use of information and communication techniques (ICTs) by rural women in two countries, to demonstrate that ICT accessibility and exploitation is needed for the improvement of the welfare of rural communities. The study was informed by a growing notion by many digital divide scholars, that exclusion of ICT in the rural areas, results in increased social exclusion, with African women in particular, getting further behind their male counterparts in development terms. Results from the study indicate that problems of access to ICTs and exclusion are still quite significant in the two countries selected for study—rural Kenya and South Africa. This situation can be explained by a number of factors, amongst them low levels of literacy and inadequate computer skills. The survey established that the majority of the respondents felt that ICTs were too costly or unavailable for their use. The study concluded that to bridge the existing digital divide in rural areas, initiatives were needed to introduce modern information and communication technology, particularly in rural areas which lag behind.

Moolman, J. Primo, N. & Shackleton,S. (2007). Taking a byte of technology: women and ICTs. *Agenda: Empowering Women for Gender Equity,* **(74).** Retrieved from http://www.agenda.org.za/content/blogcategory/88888963/88888981/
This issue of *Agenda* focuses on the intersections between gender and Information and Communication Technologies (ICTs). As an organisation working precisely at this intersection, Women'sNet is privileged to be associated with the publication of this important issue of the journal. We argue that, as feminists and women's rights activists, it is imperative that we engage with ICTs - from the level of policy and regulation to content development - to ensure that women benefit from the ICT revolution.

Mottin-Sylla, M. (2005). *Fracture numérique de genre en Afrique Francophone: une inquiétante réalité / The gender digital divide in francophone Africa: A harsh reality.* **Dakar, Sénégal: Enda Tiers Monde**. Retrieved from http://www.apc.org/en/pubs/manuals/gender/africa/gender-digital-divide-francophone-africa-harsh-rea
La recherche sur la fracture numérique de genre en Afrique francophone, réalisée par le Réseau genre et TIC, établit que, dans les six pays étudiés (Bénin, Burkina-Faso, Cameroun, Mali, Mauritanie et Sénégal) les femmes ont globalement un tiers de chances en moins que les hommes de bénéficier des avantages de la société africaine de l'information et que les liens politiques entre les questions de genre et de TIC y sont largement méconnues. Les preuves quantitatives et qualitatives qu'elle présente, justifiant les alertes lancées par les spécialistes des questions de genre dans la société de l'information, appellent, de la part des décideurs politiques publics et civils, à la mise en oeuvre d'actions pour une société plus juste et inclusive en termes de genre. / In Benin, Burkina Faso, Cameroon, Mali, Mauritania and Senegal, women are one third less likely than men to benefit from the advantages of the information society. This is according to a study undertaken in 2004-2005 by the Gender and Information and Communications Technology (ICT) Network. As ICTs are regarded as essential tools for poverty reduction, political actions are needed to ensure that the ICT sector benefits men and women equitably. This research has produced a composite indicator to measure gender disparities in the access, use and mastery of three strategic ICTs: computers, the internet and mobile phones. The composite indicator was formed from 18 indicators

grouped into 4 components - decision-making and policy, content, skills, and connectivity. After producing the composite indicator, the team gathered the data needed through context-specific studies in each of the six countries involved. The results show that the gender digital divide is a worrying reality, particularly in terms of women's participation in decision-making and policy, content and skills. Only young girls educated to the secondary school level escape these gender disparities, but they still occupy only a secondary role as consumers and 'helping hands' in the information society.

Mukama, E. &. A., S.B. (2008). Coping with change in ICT-based learning environments: newly qualified Rwandan teachers' reflections. *Journal of Computer Assisted Learning, 24*(2), 156-166. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=31207083&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement
The overarching aim of this study is to investigate how newly qualified Rwandan teachers can contribute to the creation of theoretical and practical knowledge for professional development with information and communication technology (ICT). Questionnaires, focus groups and interviews were used for data collection. The findings show that novice teachers are motivated to acquire ICT and that they succeed in situations where school administrators grant easy access to computers. The novice teachers expressed a strong desire to be trusted and be allowed time to use computers and related skills in their learning and teaching. These views are discussed in terms of learning conditions created in schools so that participants become active, responsible and committed practitioners. We assume that such attitudes can be a model for their future roles in fostering change in social practice. For example, this study shows that gender equity becomes an aspect of change in an ICT-learning environment, which creates new opportunities for continuous education. To achieve this, as revealed by the findings, there is a need to develop school-based curricula, appropriate pedagogy and teacher professional development in the area of ICT literacy, which allows the teachers to develop a critical mind to the new tools.

Muller, J. (2005). Rethinking energy access: integrating ICTs and gender for sustainable solutions. *Energy Management News, 11*(4). Retrieved from http://www.grace-network.net/publications/3_95_Jocelyns_article-Dec2005.pdf
It is estimated that 900 million of the world's poorest people are concentrated in rural areas, and approximately 70% of these people are women (UNDP 2003). Why is this the case after decades of attempts at rural development, with many projects targeting women specifically? More recent attempts at reducing poverty include country level Poverty Reduction Strategy Papers and the Millennium Development Goals.

Mutonyi, H. & Norton, B. (2007). ICT on the margins: lessons for Ugandan education. *Language & Education: an International Journal, 21*(3), 264-270. Retrieved from http://www.lerc.educ.ubc.ca/fac/norton/Language%20&%20Education%20(2007)%20-%20Mutonyi%20&%20Norton%20-%20ICT%20on%20the%20margins.pdf
In this end piece, we argue that while this special issue shifts debates on the digital divide to address students' capacity to use Information and Communication Technologies (ICT) for productive social purposes, access to ICT remains a major challenge in countries like Uganda, in which less than 1%of the population has

access to the Internet. However, since the case studies address marginalised communities in Australia, Brazil, Greece and South Africa, the findings have relevance to Uganda and other developing countries. Five lessons, in particular, are important for curriculum planning and policy development in Uganda: the need to collect empirical data on ICT access and use; the importance of recognising local differences across rural and urban communities, male and female students; the need to promote professional development of teachers so that they can make effective use of ICT in classrooms; the importance of integrating in and out-of-school digital literacy practices; and the need to consider how global software can best be adapted for local use. We conclude that if ICT is to play its part in achieving Education for All by 2015, there is an urgent need for collaborative partnerships between a wide range of stakeholders at both the local and global level.

Mutula, S. (2005). Peculiarities of the digital divide in sub-Saharan Africa. *Program: Electronic Library & Information Systems, 39*(2), 122-138. Retrieved from http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2800390203.html
Purpose - Seeks to argue that the peculiarities of sub-Saharan Africa, in terms of its socio-cultural diversity, low economic development, linguistic factors, HIV/AIDS pandemic, gender discrimination, low ICT awareness and so on, demand a new model of addressing the digital divide. Design/methodology/approach - Paper largely based on literature survey and an assessment of the existing models of addressing global digital divide. Findings - Sub-Saharan Africa has certain peculiarities in high levels of poverty, high prevalence of HIV/AIDS, repressive regimes, civil wars, diversity of cultural and linguistic factors, gender discrimination, etc. that require new models for bridging the digital divide and that recognise the uniqueness of the sub-continent. Research limitations/implications - More research is needed to determine new models of bridging the digital divide that can help sub-Saharan Africa to leapfrog into the information age. Practical implications - More attention is needed to alleviate poverty and meet people's basic needs for livelihood if attempts to integrate ICT into their lives are to be effective. Originality/value - Sub-Saharan Africa has largely relied on models of the developed countries to bridge the digital divide without paying close attention to how various technologies can effectively be integrated in the lives of the people to alleviate poverty and consequently stimulate ICT uptake. This paper provides some solutions.

Olatokun, W. (2007). Availability, accessibility and use of ICTs by Nigerian women academics. *Malaysian Journal of Library & Information Science, 12*(2), 13-33. Retrieved from http://majlis.fsktm.um.edu.my/downlog.asp?AID=564
This study investigated the availability, accessibility and use of Information and Communication Technologies (ICTs) among women academics in six universities in South Western Nigeria. The study adopted a survey design approach and the questionnaire was administered on 246 women academics in the six universities. Findings revealed that the use of ICT facilities such as computers, printers, Internet, individual websites, photocopiers, telephones and mobile phones was relatively high among the respondents compared to the use of scanners, facsimiles, videoconferencing, and teleconferencing. Also, the women academics used the ICT facilities for various tasks notably for statistical analyses, word processing, Internet browsing and searching for information, electronic communications and preparation of course materials. Analyses also confirmed notable differences in women'

academics access to the ICT facilities compared with their male counterparts and some factors responsible for this were identified. The study argues that though increasing availability and access to ICT is very pertinent to making women academics avail themselves of the benefits of ICT, but other factors that would make them become a part of the decision-making process regarding ICT issues should equally be addressed. The study recommends some policy options and strategies that the government and the management of the surveyed institutions should adopt. They should not only increase the access of women academics to ICT, but also enable them participate in the decision-making and control of ICT `deployment.

Olatokun, W. (2008). Gender and national ICT policy in Africa: issues, strategies, and policy options. *Information Development, 24*(1), 53-65. Retrieved from http://idv.sagepub.com/cgi/reprint/24/1/53.pdf

The paper commences with a review of the concept of Information Communication technology (ICT) and points out how it has become a potent force in transforming social, economic and political life globally. It then discusses the linkage between gender and ICT especially how ICT has widened the digital divide gap between Africa and the rest of the world on one hand, and between males and females on the other. It later gives an overview of the ICT policy formulation situation in Africa pointing out the gender provisions in the national ICT policy documents of some African countries. It then reviews illiteracy rates and access to telephone facilities, computers, and Internet facilities in Africa and indicates that there is a digital divide on the continent between those who have access to the Internet and related technologies and those who do not. It finally presents the policy options and strategies to be adopted by African governments to enable women to benefit from opportunities offered by ICT. The paper concludes by submitting that unless gender issues are incorporated in national ICT policies in Africa, the digital divide will continue to widen and most women that live in African rural populations would continue to be excluded from the benefits of ICT. Unless African governments incorporate gender issues in national ICT policies, most women living in rural areas in Africa will continue to be excluded from the benefits of information and communication technologies.

Oluwatayo, I. & Ahmed, A. (2008). Gender differentials in information communication technologies (ICTS) usage in rural Nigeria: Case of Atisbo local government area of Oyo State. *Asian-African Journal of Economics and Econometrics, 8* (1), 15-27.

Gender differential in accessibility to information communication technologies (ICTs) has been a major problem facing the farming communities in many developing countries across the globe. This problem is more pronounced in the rural areas in spite of the fact that majority of the food produced in these countries comes from the rural communities. However, effective and sustainable agricultural development depends largely on physical and economic access to technologies by all individuals (i.e., both genders). This paper therefore examines the disparities in ICTs usage among farming households in Atisbo Local Government Area of Oyo-State. Data for the study were obtained from a random sample of 100 respondents comprising 50 males and 50 females through the use of a well-structured questionnaire. A logistic analysis of the data revealed that age of respondents (-1.2382) is negatively related to ICTs usage indicating that usage of ICTs is prevalent among youths. In terms of gender, men are more involved in ICTs usage than women. Marital status of

respondents is negatively related to the use of ICTs. Thus, it can be deduced from the result that married respondents are more occupied hence, the decline in its use. Educational level of respondents is positively related to their likelihood of using ICTs. The level of literacy was very low especially among the female respondents than male respondents. Occupation of respondents is also negatively related to the use of ICTs since majority of ICTs users are non-farming households. However, Female respondents are particularly faced with a lot of constraints ranging from inability to afford the ICTs, inability to access them due to technological incompetence to lack of time because of domestic work.

Palitza, K. (2007). ICTs -- closing or expanding the gender digital divide? *Agenda: Empowering Women for Gender Equity,* **(74).** Retrieved from http://www.agenda.org.za/content/blogcategory/88888963/88888981/
Agenda editor Kristin Palitza spoke to three African women who are professionally involved in the Information Communication Technology (ICT) sector and passionate about helping women to gain access to new technologies. Robynne Erwin from South Africa, Jane Godia from Kenya and Goretti Amuriat from Uganda discussed via teleconference the successes, challenges and barriers to gendering ICTs throughout the continent.

Qureshi, S. (2008). Assessing the effects of information and communication technologies on development. *Information Technology for Development,* *14***(4), 259-261.** Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=34870382&site=ehost-live Accessible only at IDRC / Accessible au CRDI seulement
The article discusses various reports published within the issue, including one by Hazel Gillard and colleagues on information and communication technologies (ICT). and gender, one by Ayman Elnaggar on gender equal access to ICT in Omani society, and Felix Bollou and Ojelanki Ngwenyama on ICT investment in Africa

Radloff, J. & Primo, N. (2002). Net gains for women in Africa. *Development,* *45***(4), 41-48.** Retrieved from http://www.palgrave-journals.com/development/journal/v45/n4/abs/1110403a.html
Jennifer Radloff and Natasha Primo focus on African women's initiatives and organizations using new communication technologies for development, gender justice and social change. Based on research commissioned by the Association for Progressive Communications (APC) — Africa Women and the African Women's Development and Communications Network (FEMNET) and undertaken by Gender Links Associates, they look at issues faced by women using ICTs, how these are being addressed and what creative projects are being undertaken through the strategic employment of ICTs (APC — Africa Women, FEMNET and Gender Links Associates, 2002).

Rathgeber, E.M. & Adera, E.O. (ed.). (2000). *Gender and the information revolution in Africa* **/ L'inégalité des sexes et la révolution de l'information en Afrique**. Ottawa: IDRC/CRDI. Retrieved from http://www.idrc.ca/en/ev-9409-201-1-DO_TOPIC.html / http://www.idrc.ca/fr/ev-9409-201-1-DO_TOPIC.html
Most of the chapters in this volume were presented at an international conference, African Women and Economic Development: Investing in Our Future, which was

held from 28 April to 1 May 1998, in Addis Ababa, Ethiopia, and hosted by the United Nations Economic Commission for Africa to mark its 40th anniversary. This collection examines the current and potential impact of the explosion of information and communication technologies (ICTs) in Africa, focusing on the gender dimensions and analyzing the extent to which the revolution is serving women's needs and preferences. The book argues that it is not enough for women to be simply passive participants in the development and dissemination of ICTs in Africa. They must also be decision-makers and actors in the process of using the new ICTs to accelerate African economic, social, and political development. / Unanimement dans le monde, on reconnaît l'information comme la cheville ouvrière du développement durable et équitable. En Afrique cependant, plus particulièrement pour les femmes vivant en milieu rural, l'accès à l'information est limité. Les nouvelles technologies de l'information et des télécommunications (TIC), axées pour la plupart sur Internet, offrent la chance d'éliminer ce déséquilibre. Les essais de ce livre portent sur l'incidence actuelle et possible de l'explosion des TIC en Afrique. Ils se penchent principalement sur les problèmes liés à l'inégalité des sexes et analysent la mesure dans laquelle les besoins et les voeux des femmes sont comblés. Les auteures insistent sur la nécessité de satisfaire le besoin d'information en l'appliquant directement au contexte des femmes en milieu rural, que ce soit dans les domaines de l'agriculture, de la santé, de la micro-entreprise ou de l'éducation. Selon elles, les femmes ne doivent pas se contenter d'assister passivement à l'expansion des TIC en Afrique. Elles doivent également prendre des décisions et jouer un rôle de premier plan dans l'exploitation des nouvelles TIC pour accélérer le développement économique, social et politique du continent africain.

Robins, M. (2002). Are African women online just ICT consumers? *Gazette: International Journal for Communication Studies, 64***(3), 235.**
As Africa's women struggle to enlarge their spheres of influence in political, economic and social arenas, the question is whether the Internet and other digital technologies can become agents of transformation or will reproduce the inequalities of the status quo. This study investigates the sites where gender, class and international trade intersect with the emerging communications technologies, thus epitomizing the ambiguities of globalization. The author overviews Internet development projects currently under way in Africa in general and Senegal in particular, revealing the interconnectedness of governmental and non-governmental initiatives with private capital interests. She argues that the impact of communication technologies in the developing world can only be understood within this web of contingencies, and that neither a naive celebration of ICT potential nor condemnation of a new digital colonialism adequately captures the situation.

Sehoole, C. & Moja, T. (2003). Pedagogical issues and gender in cyberspace education: distance education in South Africa. *African & Asian Studies, 2***(4), 475-496.** Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=12425122&site=ehost-live
Accessible at IDRC only/ Accessible au CRDI seulement
The purpose of this paper is to analyse the pedagogical and gender issues embedded in distance and cyberspace education. Pedagogical issues to be addressed relate to access, teaching and learning, quality, and research within distance and cyberspace education. The paper will further analyse the gender dimension in cyberspace education in South Africa. Our paper limits itself to cyberspace teaching and learning as a process that takes place using the Internet or the World Wide Web, or uses some digital information and communications

technology (ICT). We understand ICT to be a broad concept that includes all forms of electronic communications in both digital and analogue forms. Pedagogical issues in this paper are covered in a broader context, but our analyses of gender issues is limited to cyberspace education. Some literature refers to latter modes of learning as "e-learning" (Bates 2001). Different people have defined the concept, and the more common definition is that cyberspace is the total interconnectedness of human beings through computers and telecommunications without regard to physical geography. William Gibson is credited with inventing or popularising the concept in his novel.

Smith, R., Roodt, J., Primo, N. & Evans, N. (2006). In James T. (ed.)*, Women in the information and communication technology sector in South Africa*. The Meraka Institute. Retrieved from http://women-in-ict.meraka.csir.co.za/images/9/93/National_lowres.pdf
To what extent are women successfully participating in the Information and Communication Technologies (ICTs) sector in South Africa? What support is the government and industry providing them? This report describes the level of female participation in ICTs and analyses the performance of government, private sector, civil society, and research and academia in supporting women's participation in ICTs in South Africa. It finds that government is taking significant steps towards addressing the gender issues, including proposals within its draft 'ICT Charter' for 15% quotas for women in senior management positions, and committing to extra funding for science-related opportunities for girl pupils. However, current efforts need better co-ordination. Although heavily outnumbered, female employees are an increasing minority in the ICT sector, and the industry is slowly recognising the current and potential value of women employees. However, ICTs still remain 'a man's world', and this is reflected strongly in women's experiences and perceptions of the sector described.

Somolu, O. (2007). Telling our own stories: African women blogging for social change. *Gender & Development, 15*(3), 477-489. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=27342494&site=ehost-live Accessible at IDRC only/ Accessible au CRDI seulement
This article explores how African women have embraced the blogging phenomenon, and how blogs can be used to promote women's equality and empowerment. One of the reasons frequently cited for a lack of interest by African women in information and communications technologies (ICTs) is the lack of content available that is relevant to their needs. Blogging provides a way for women to become active creators and disseminators of knowledge, writing about what is important to them. As we explore how African women are using blogs, we will also examine the obstacles to blogging, and why some women are not attracted to the technology.

UN Division for the Advancement of Women. Department of Economic and Social Affairs. (2005). *Gender equality and empowerment of women through ICT*. New York City, USA: United Nations. Retrieved from http://www.un.org/womenwatch/daw/public/w2000-09.05-ict-e.pdf
This report provides a summary of critical gender equality issues related to ICT and development and outlines potential opportunities for women's economic, social and political empowerment. Key strategies and tools to address the gender digital divide in national and international contexts are presented. Examples of good practice on

gender equality and ICT are elaborated through a focus on the need to address the gender divide and reduce ICT inequalities. The authors call for a need to identify ways to use ICT proactively and effectively to promote gender equality.

Valk, M., Cummings, S.J.R., & Van Dam, H. (ed.). (2005). *Gender and ICTs for development: a global source book.* **The Royal Tropical Institute (KIT) in the Netherlands.** Retrieved from http://smartsite.kit.nl/net/kit_publicaties_output/showfile.aspx?a=tblFiles&b=FileID&c=FileName&d=TheFile&e=820
Around the world information and communication technologies (ICTs) have changed the lives of individuals, organisations and indeed, entire nations. ICTs can have profound implications for women and men in terms of employment, education, health, environmental sustainability, and community development. Women want to have access to information and to engage in communication that will improve their livelihoods and help them to achieve their human rights, yet, due to gender inequality in the information society, they are often prevented from accessing and shaping ICTs.

Various. (2005). *Engendering ICT toolkit.* **Washington: World Bank**. Retrieved from http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/EXTICTTOOLKIT/0,,menuPK:542826~pagePK:64168427~piPK:64168435~theSitePK:542820,00.html
Why should ICT projects incorporate gender concerns? Information and Communication Technologies (ICTs) can be highly valuable tools for advancing women's social, economic and political status. Yet gender-based inequalities continue to restrict many women's ability to take advantage of ICTs to better their lives. This toolkit identifies opportunities, highlights innovative projects, and suggests how the World Bank (WB) and other stakeholders can fulfil the promise of gender equality through ICTs. The resource is divided into 10 sections: an overview; key gender issues to consider with regard to ICT policies and projects; checklists to ensure that women are benefiting equally from various national ICT initiatives; 11 country profiles; ICT monitoring and evaluation indicators, with a focus on sex-disaggregated statistics; guidelines for incorporating a gender perspective in ICT and education, entrepreneurship, labour force participation and social service delivery projects; as well as good practices and case studies. The toolkit targets researchers, educators, and development practitioners.

Wakunuma, K. (2006). The Internet and mobile telephony: implications for women's development and empowerment in Zambia. Paper presented at the *Gender, ICTs and Development,* **Manchester, UK.** Retrieved from http://www.womenictenterprise.org/WakunumaWorkshopPresent.ppt
Over the past few decades, the ICT 'revolution' has promised a variety of benefits to society, including a material difference to the lives of women and men living and working in the developing world. However, there has been a parallel discussion which questions the extent to which the rhetoric of social and economic development as well as empowerment, in particular, for women in traditional societies is being transformed into practice on the ground. This presentation will use Zambia as an example of a developing society and concentrate on two ICTs, the internet and mobile phones, to discuss social and economic development as well as empowerment aspects or lack therefore resulting from the use and access of these

two particular ICTs. For example although it is true that increased use of mobile phones in developing societies like Zambia has brought about some degree of freedom for some women in terms of networking for instance, the opposite might be true for others. This is especially in the private sphere where some women face a degree of social strife such as physical abuse from their spouses due to their use of mobile phones. This paper therefore tries to highlight the fact that with perceived social and economic development which such ICTs might bring comes to some extent continued subordination of women and therefore reinforcement of traditional gender stereotypes. The question therefore, is, to what extent if at all, can social and economic development as well as empowerment really ensue when there are still evident gender inequalities in developing countries like Zambia even in light of using and accessing new ICTs.

Walsham, G. & Sahay, S. (2006). Research on information systems in developing countries: current landscape and future prospects. *Information Technology for Development, 12(1), 1-24.* Retrieved from http://heim.ifi.uio.no/~sundeeps/Publicationsnew/Sundeep%20webpagework/HIS%20landscape2006.pdf
The current landscape of the information systems research literature concerned with developing countries is surveyed by examining a range of research articles published from 2000 onward. These are discussed in terms of the key challenges addressed, including the role of technology, and the methodological and theoretical approaches used. Prospects for future research are discussed, based on a conceptual view as to how to study information and communication technologies (ICTs) in developing countries, to classify existing work, identify gaps, and suggest future opportunities. The authors contribute to the important debate on how ICTs in general, and information systems research in particular, can make a positive difference in the developing countries.

Wyatt, S. (2008). Feminism, technology and the information society: learning from the past, imagining the future. *Information, Communication & Society, 11*(1), 111-130. Retrieved from http://www.virtualknowledgestudio.nl/documents/ics-key-feb08.pdf
This article examines second wave and post-second wave feminist writing about the possibilities of (contemporaneously) new information and communication technologies. A number of texts by key authors, including Shulamith Firestone, Valerie Solanas, Cynthia Cockburn, Donna Haraway and Sadie Plant, are examined in light of the social and political context of their time of writing as well as in relation to 'mainstream' information society theorists such as Daniel Bell and Manuel Castells. The main focus is on how these authors understand the transformative potential of technologies, and attention is drawn to the swings between optimism and pessimism about the role of technology for a feminist political agenda. The role and nature of manifestos are also explored, and the question of whether it is time for another feminist technology manifesto is raised. The article concludes by posing some methodological and theoretical challenges of developing an anti-essentialist (in relation to both gender and technology), politically engaged and relevant feminist research agenda that takes seriously both lived experience and structures of power. The footnotes are an experiment in autobiographical writing in which I make explicit my own connection to this literature and the politics of these debates.

Yitamben, G. (2006). Have women taken advantage of the digital revolution?
International Institute for Capacity Building in Africa Newsletter, 8(2).
Retrieved from http://www.grace-network.net/publications/3_95_UNESCO_IICBA_Newsletter_Dec_06.pdf
Various countries have taken advantage of the advent of Information
Communication Technologies (ICTs). For some, the political goodwill was frankly
displayed and translated into true telecommunication policy reforms. As for
Cameroon, it shows a significant delay regarding the density of fixed and mobile
telephone. Despite the major obstacles to profit from the advantages of the digital
revolution, there are a few lucky women who have been able to take advantage of
ICT.

**Zirima, P. (2007). Engendering ICT policies: practices from Mozambique, Zambia
and Zimbabwe.** *Agenda: Empowering Women for Gender Equity,* **(74).**
Retrieved from
http://www.agenda.org.za/content/blogcategory/88888963/88888981/
This *focus* assesses Information Communication Technology (ICT) policies in
southern African countries, namely Mozambique, Zambia and Zimbabwe. It
examines whether countries have ICT policies in place, whether these address
gender realities in the region and what actions have been taken since policies have
been implemented. The author argues that having an ICT policy within any given
country is essential to improving access to ICTs by disadvantaged groups. The
paper shows that gendered ICT policies will go a long way in reducing inequalities
between the sexes and also between Africa and the rest of the world. It offers an
analysis of how these policies improve women's access to ICTs within various
sectors, such as commerce, agriculture, education, governance, health and tourism.
The *focus* argues, however, that it is not enough to look at ICT policy in isolation but
important to consider what mechanisms governments have put into place to ensure
that women have access to and make effective use of ICTs.

**Zunguze, M. (2007). Do ICTs really empower rural women? interrogation of a
Zimbabwean community ICT project.** *Agenda: Empowering Women for
Gender Equity,* **(74).** Retrieved from
http://www.agenda.org.za/content/blogcategory/88888963/88888981/
This *profile* focuses on the work of E-Knowledge for Women in Southern Africa
(EKOWISA), a Zimbabwean non-governmental organisation that encourages
communities to use Information Communication Technologies (ICTs) for livelihood
development. The paper interrogates the assumption that ICTs empower women,
the meaning of empowerment as well as the particular challenges to ICT access in
rural areas (Marcelle, 2000) based on EKOWISA's Community ICT project.

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IDRC Library
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